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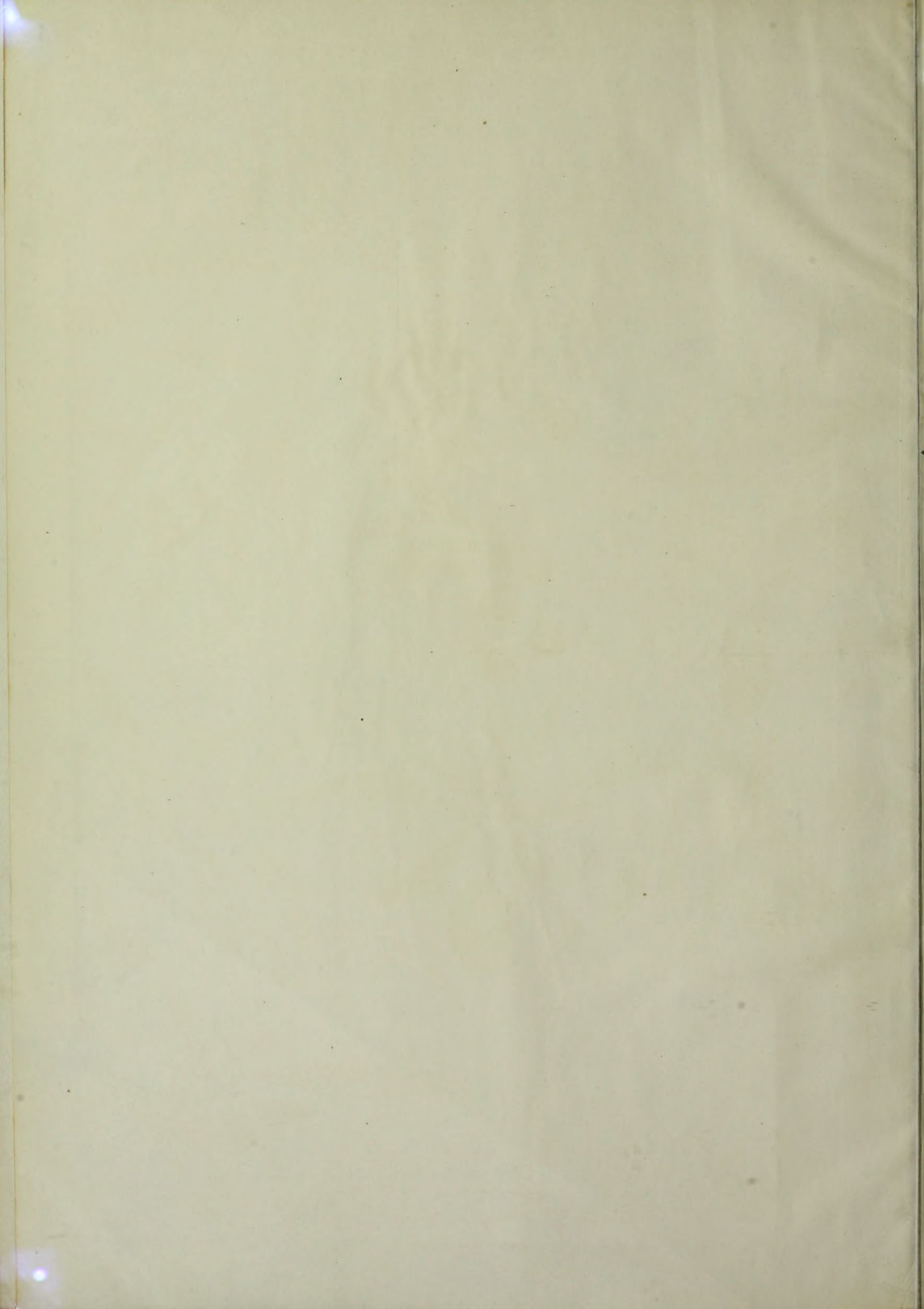


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A New and Important Railroad Projected.

EDITORS PRESS:—For some time past complaint has been heard from the east side of the San Joaquin valley of the exactions practiced by the Southern Pacific Railroad Company, coupled sometimes with a lack of courtesy on the part of the company's employees. Voicing these grievances, the Fresno *Expositor* of recent date declares the time has come when the interests of the people inhabiting the belt of country indicated demand the construction of a competing road, extending along the foothills of the Sierra from Stockton to the head of the valley.

Having vainly appealed to the great corporation for a correction of these evils, these people are ready now to entertain propositions looking to the early construction of a rival road over this route. They stand ready to liberally subsidize any company undertaking the work, this subsidy to consist of rights of way with land for depots, shops, etc., or of a large money donation, and possibly of both.

This disaffection is not confined to the town of Fresno and vicinity. It is widespread, extending to all classes and interests along that section of the valley reaching from the line of the Central Pacific road to the foothills, including the latter and the mountain country to the east. It is a community of malcontents, the entire population pledging their patronage to any new company entering the field.

Encouraged by these liberal offers, and knowing how rapidly this section of the State is being populated and its great need of additional transportation facilities, a company known as the Stockton, Fresno and Southern Railroad has lately been incorporated for the purpose of building a road over the route here spoken of, this company including among its incorporators and officers some of our best known citizens and most substantial business men.

The total length of the projected road, as shown by the report of the company's engineer, is 175 miles, the country traversed being extremely favorable for railroad construction. There will be no sharp curves or heavy grades on the line. The greater portion of the road will be built on grades of less than 15 feet to the mile, much of it on a dead level, while the amount of excavation and that now required for grading will be less than six miles, though there will be several large rivers and numerous creeks to be crossed. The road will proceed south from Stockton, passing through the Merced, Fresno, Kings, and San Joaquin counties, and ending at Bear, Mariposa, Cottonwood, and Dry.

Along the rolling stock, depots, etc., the entire cost of constructing the road, which is to be single track, standard gauge, is estimated at \$2,086,201—present annual gross earnings at \$3,068,950. Deduct from this on account of operating expenses, fixed charges and sinking fund, \$2,151,370, leaves to be distributed to shareholders \$917,680. These estimates pertain to the income and outgo of the first year, following which both the gross and the net revenues of the company will be year by year largely increased.

The articles to be carried over this road include all the leading California staples, such as grain, flour, lumber, wine, wool, fruit, hogs, sheep, cattle, etc., the freight on the two items of wheat and barley amounting to \$1,140,000 annually. It is calculated that there will be transported over the road yearly 3000 carloads of fruit, 1000 carloads of cattle and 2,500,000 gallons of wine.

As laid out, it bisects the richest agricultural section of the State, the counties immediately tributary to it forming one of our foremost grain, grape and fruit growing districts. The most of the soil is a deep, sandy loam, exceedingly fertile, nearly the whole country being so level that irrigation, where required, can be practiced with the greatest facility, there being at the same time an abundance of water available for the purpose. The cereal crops, however, do not as a general thing need this aid, nor is it imperative in the culture of fruits and vines in more than a few localities. Recourse to irrigation is often had, not so much that it is an absolute necessity as because it tends to enrich the soil and insure beyond contingency a bountiful crop. The agricultural territory tributary to the projected road amounts to over one and a half million acres. This, however, includes only the valley lands proper, the foothill region, the best portion of the State for fruits and grapes, and the site of the gold-fields, with the vast extent of timbered mountains beyond, being also tributary to the road. The forests on these mountains being among the finest in California, would send down incalculable quantities of lumber. That this road when built will do a heavy transportation business admits of no doubt.

Had not this company undertaken the construction of a railroad along this belt it would all the same have been done. The old companies no longer seek to dominate the entire railroad system of the State, nor do they claim every eligible local route as one of their per-

quisites. They have abandoned this policy as impracticable, and because they have found it more profitable to encourage other parties to build these lateral lines to become feeders to their main trunks. No country requires these local roads so much as California, as the wagon-roads here become almost impassable during the wet season. At the rate this State is filling up with inhabitants it will not be long till we shall see it gridironed with these highways after the manner common in the Eastern States, every hamlet, mining camp and important agricultural district being in this manner connected with the general railroad system of the country.

H. D.

Cloverdale Precinct, San Bernardino County.

EDITORS PRESS:—Commencing at Box Springs, on the C. S. R. R., about five miles east of Riverside, and running from there to the San Jacinto lake, ten miles east, is a section of country that until within a year or two was considered unfit for human habitation. A few families have moved in, taken up Government land and bought of the R. R. company, and what was once a sheep range is now being transformed into happy homes of prosperous farmers.

The soil consists of decomposed granite, and near the foothills retains moisture to a wonderful degree. Water is obtained for domestic purposes by running cuts in the foothills, where it is found in the clay seams between the granite. No one in the neighborhood has failed to find it by digging.

The crops have been mostly barley for hay and grain, and the yield has been very satisfactory. There was a small amount of corn matured without irrigation. Potatoes did well. Beans filled well, but were taken by the rabbits after the barley was gone. Several varieties of fruit trees were carried through the summer without water; among them were apples, peaches, pears, plums, cherries, figs and quinces, as well as grapevines, both rooted and cuttings.

Our nearest postoffice is at Alessandro, about seven miles distant, on the C. S. R. R., where there is a commodious hotel and a fine depot.

The boom is bursted, but the rains have come and every one is trying to get as much grain in the ground as possible, and the result will be a better boom than the speculative one that is gone.

The climate and location are well adapted to raising country, and some parties have already leased land, with intention of building a road, which has been herded as they used sheep.

Bees do well, as there is an abundance of white sage from which they make white honey. Will report progress in the future.

Dec. 1, 1888. L. S. LYNN.

Santa Barbara County Notes.

EDITORS PRESS:—In common with the rest of the State this county has been blessed with abundant rainfall, about ten inches having fallen up to date. The rain has fallen gradually as to be absorbed as rapidly as it fell and has thus been saved. All nature is smiling and pastures are green. Many strangers are noticeable looking for small tracts of land for homes. Much more of this class are coming in proportion to the usual amount of travel than has been customary for some time. The large ranches are being cut into small farms more and more each year, and the supply of cattle, hogs, sheep and horses must therefore be produced more and more yearly by the small farmers in order to keep up to the demand.

Around Santa Barbara and Carpinteria artesian water has been found in such paying quantities and shallow depths that new wells are being sunk constantly, adding to the large number of wells now flowing. Mr. G. E. Thurmond, the postmaster at Carpinteria, has lately sunk a well which sends the water out of the top of a pipe 20 feet from the ground, and he supplies a considerable portion of the residents of the village with water, piping it wherever wanted. There are several other wells in the valley equally good as this one, and they certainly are a great boon to the possessors.

There is a great demand for fruit and nut trees throughout this section. Hundreds of acres of walnuts will be set out this winter and more would be set out if the trees were obtainable.

The beans and walnuts raised this season have not as yet all been marketed. The walnut market has been depressed by the holders of last year's California and Chili walnuts in San Francisco, who hoped by this means to work off their stocks ahead of the new crop. This year's crop is short in quantity but very fine in quality and of large size, and should command higher prices than it does. Beans also were short in quantity and farmers have been backward about selling. However, the majority of the crop has been sold and that at good prices.

Business of all kinds is very dull, but all are hoping for livelier times soon. The holiday trade has been retarded somewhat by the inclement weather, as the weather has been quite stormy and windy for a few days.

L. B. CADWELL.

"Pomona's Retreat," Carpinteria.

HORTICULTURE.

Coming Meeting of the American Pomological Society.

EDITORS PRESS:—At the last meeting in Boston, the society unanimously accepted an invitation from the Florida Horticultural Society to hold its next meeting in that State. This will be the first time that a meeting has been held in the extreme South. The enthusiasm with which the proposition to go to Florida was received, and the extensive preparations being made by the pomologists of the South for the reception of their Northern friends, give promise of the most successful meeting ever held.

The session will open at ten o'clock on Wednesday, Feb. 20, and continue three days. It was expected to hold the meeting at Sanford, beginning Feb. 6, but it has been found necessary, owing to lack of time for suitable preparation, to postpone it until the 20th, and at the request of the Florida Society, to hold the session at Ocala instead of Sanford. Ocala is located in the central part of the peninsula, in the midst of the orange region, nine-tenths of all the oranges grown in the State being produced within a radius of 80 miles. The climate is salubrious and healthful. No cases of yellow fever have occurred in that region, and the direct railroads leading to Ocala from the North pass through none of the districts where it has existed. No fear, however, need be entertained of visiting any portion of the State on this account. Since the occurrence of severe frosts the last quarantine, that of Jacksonville, has been raised, and the tide of winter travel has now set in.

Among the attractions offered by the people of Ocala as inducements to hold our meeting there, are the Florida International and Sub-Tropical Exposition, which opens in January, the commodious buildings of which are tendered for the use of the society. The leading places of interest in the State are easily accessible from this point, and the local attractions include the famous groves of Lake Weir and Dunnellton, and the wonderful Silver Springs, the finest of the kind in the world.

Arrangements will be made for unusually low rates on roads entering Florida, and for excursions within the State. Full particulars in regard to these will be announced later. Where no other arrangements exist, delegations should secure special rates to Ocala from their nearest member of the General Passenger Agents' Association.

It is hoped that all Pomological, Horticultural and Agricultural Societies in the United States and British Provinces will send delegates, such numbers as they may deem expedient, and all persons interested in the cultivation of fruit are invited to be present and become members of the society. Persons so desirous to do so, should send the fee, \$4 for biennial membership, or \$2 for life membership, to the treasurer of the society, Mr. Benjamin G. Smith, Cambridge, Mass., who will give a receipt for the same. The holder to all the courtesies in the society, reduced railroad and hotel rates, etc. The secretary be notified as soon as practicable of the names of members desiring to attend, in order that proper arrangements may be made for their reception.

A special invitation is extended to ladies to attend the meeting, become members, and take part in the proceedings. An attractive program is in preparation, a full account of which will appear later. It includes papers and discussions by the best pomologists of the country upon new fruits and methods of cultivation, the problems of judging fruits, of transportation and marketing, diseases and their remedies, and the origination and introduction of new varieties.

The society will be held at the Hotel Florida, Ocala, Fla. Exhibits to be made by the members of the society, and medals will be made by the American Society.

Packages intended for exhibition, freight or express addressed, freight or express to J. O. Clark, Ocala, Fla.

PROSPER J. BERCKMANS, 1888.

Angus

Note—Until the Florida meeting, the office of the secretary, A. A. Crozier, will be at the Department of Agriculture, Washington.

Fruit for the Paris Exposition.

EDITORS PRESS:—It being impossible to address letters to the many growers of citrus fruits, I have thought to publish, through your columns, a statement to the effect that the department is making efforts to exhibit the citrus and other fruits of the entire country at the Paris Exposition in 1889. As I have the matter in charge, I hope to have voluntary collections of the citrus fruits in particular, to this office for that purpose. Accordingly, I have demanded that all specimens be ready for shipment by January 1st, and I trust that this may be complied with by the many persons in

your State who feel ready to co-operate. All expenses, such as expressage, will be paid here, or the parties reimbursed if they prepay such charges.

H. E. VAN DEMAN,

Pomologist in charge of fruit exhibit.

A California Fig Exhibit.

The fact that California is now producing the true Smyrna fig of commerce, with another exceedingly choice variety, the White Adriatic, has rendered it desirable that an exhibit of figs be sent to Paris during the coming exposition in that city, that the people of Europe may be able to see as great a variety of the products of California soil as possible. The Department of Agriculture of the United States has recognized the important bearing of the fact that the true fig of commerce is successfully grown here, and has requested G. P. Rixford of this city to secure an exhibit for the Paris Exposition, appointing him the department's agent for that purpose. Mr. Rixford will act as requested, and asks fig-growers to prepare packages of figs, put up in a tasteful manner, and to send them to him, care of the State Viticultural Commission. He requests that they be sent by express, which can be done without expense to the sender, as arrangements for paying express charges have been made. Every package exhibited will be credited to the person contributing it.

As the exhibit is to be representative of the whole fig industry, samples of not only dried fruit, but crystallized, pickled or preserved by any method, are desired. Any further particulars may be had by addressing G. P. Rixford, 528 California street, San Francisco.

THE STABLE.

Quinine for Pinkeye.

Mr. L. Brodhead, superintendent of the famous Woodburn Stock Farm, Lexington, Kentucky, uses quinine for pinkeye and kindred diseases, and gives the following recipe:

Give a dram from 15 to 20 grains a day. We generally give this quantity once a day, but when first taken and the fever is high, give about 15 grains twice a day, morning and evening; if the attack is mild, only one dose a day, and continue until the disease leaves the system. The quinine allays the fever, is good for the inflamed throat, is a fine tonic, and so far has cured every case we have had, to the number of 150. In the spring we had several very severe cases that I am sure we should have lost but for quinine. These were yearlings, and we gave 20 grains twice a day. Older horses can take 60 grains a day in two doses. Whenever there is fever, use quinine freely, no matter what the disease. It is almost a specific for lung fever and pneumonia. I have cured two cases of lockjaw in sucklings this summer with quinine and atrophy, 20 drops of the latter to the dose. We are not particular to weigh the quinine, but guess at a dose. Put it on a spoon and place it on the tongue, without elevating the head or exciting the animal. We pull the tongue to one side, insert the spoon, turn it over and wipe it on the tongue. It is easy to administer, and the animal gets it all. It is perfectly safe, and there is little, if any, danger in giving too much. I have used quinine for four or five years, and always with good results.

NERVOUS HORSES.—Finely bred, intelligent horses are very often nervous. They are quick to notice, quick to take alarm, quick to do what seems to them, in moments of sudden terror, necessary to escape from possible harm from something they do not understand. That is what makes them shy, bolt and run away. We cannot tell what awful suggestions strange things offer to their minds. For aught we can tell, a sheet of white paper in the road may seem to the nervous horse a yawning chasm, or a deep pool of water.

ware on until the noise simply as a nuisance. The material objects as only trivial things liable to get hurt if they are in his way. He may not learn all that in one lesson, continue the lesson and you will cure all his nervousness.—Horseman.

A Bill has just been introduced into Congress that ought to become a law. It provides that in all National elections the payment of money for the vote of any person shall be unlawful, and the person violating the law shall, upon conviction, be disfranchised for not less than six years nor more than ten, and during the said period be disqualified to hold any office of trust or profit under the United States.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Executive Committee Meeting.

A special meeting of the Executive Committee of the State Grange of California, P. of H., will be held at the office of the Secretary, 220 Market street, S. F., at 1 o'clock P. M., Friday, January 11, 1889.

W. L. OVERHISER,
Chairman.
A. T. DEWEY,
Secretary State Grange of Cal.

Joint Installation of San Joaquin County Granges.

To the Officers and Patrons of all the Subordinate Granges in San Joaquin County:—A majority of the Granges of this county have agreed upon having a joint installation of the officers of the San Joaquin county subordinate Granges in Lodi hall on January 16th, commencing at 9:30 A. M., with a basket lunch.

The Master says come, the Secretary says come, all say come—and doubtless they will come by the multitude.

J. D. HUFFMAN,
Secretary of Committee.
Lodi, Dec. 30, 1888.

The Tule Basins.

Every now and then, in the discussion of the debris evil, the tule basins of the valley are mentioned in certain quarters as suitable places wherein to settle the material washed out of the mountain by the hydraulic giant. Such a scheme has again come to the front as a possible relief to the dethroned methods of mining. The Farmer has on several occasions pointed out the impracticability and undesirability of the scheme, and since it has again been mooted we will renew once more our objections.

The tule basins—or winter lakes, as we may call them—are as necessary to the Sacramento valley as a safety-valve from complete periodical inundation, as are the depressions upon the globe that hold the waters of the seas. The Creator caused the waters to separate from the soil, and then animals appeared, to reside on the lands and in the waters, and by-and-by the soil began to be cultivated. Such were the natural processes by which the great interior valleys of California were created. That these were once inland seas is self-evident; that natural causes divided the soil from the water and rendered it inhabitable, none will gainsay. Hence it is that we have a Sacramento and a San Joaquin valley, perhaps to-day the richest spots on earth. But they have been slow in forming, and are so nearly a "dead level" as to have caused the waters to leave behind them the finest alluvial matter. The absence, then, of a current kept the mud within the inner bays and in time were separated into arable land, tule swamps and low-water channels. We say low-water channels, because these were never adequate to carry the waters at flood-tides to the lower bays and to the sea. Thus is explained the presence of the tule basins, which are known to hold the flood-waters with safety to the arable land, until they have time to pass away through the channels created to accommodate a low-water standard.

Now fill these depressions and it is as certain as anything in nature can be that the channels must be vastly enlarged or the floods will spread as of yore from mountain to mountain, converting the valley into its original elements of mud and water. The wash proposed is not the alluvial element that made the valley, but comes from the bowels of the mountains, unfit to create anything except a desert to be blown about at the will of the winds, as witness the 50,000 acres already so converted. That, so far as is known, not a single swamp-land owner desires such a reclamation, is the best evidence deducible that it is impracticable and undesirable. The late Wm. H. Parks, who was the best authority in the State in such matters, never wanted his swamp land reclaimed by the sanding process.

There is yet one other objection, and one which is wholly insurmountable. It is simply this: The objectionable matter can never be gotten there, even if the entire revenues of the General Government were applied to the scheme. A force that will down mountains must be met with a force that will dry up the seas to be effective!—*Sutter Farmer.*

EDEN GRANGE initiated two new members at its meeting on the 22d ult.

Three Days Among Grangers.

MESSRS. EDITORS:—The participation with our Grange in the anniversary exercises just whet up my appetite for more, so I accepted the general invitation of Temescal Grange to be present at their anniversary exercises. From the persons that are at the head of the Order and the manner in which it was announced, it was well known that it would be a grand success.

This was a fair demonstration of what can be done when co-operation is fairly carried out. Eden Grange came down with their numbers and their talents, age and experience, and they did not withhold any of their good things. They affiliated so completely that it seemed but one Grange, and I think it the grandest lesson in fraternal gatherings that I have witnessed in many a day.

Grandmother Brooks was there and took her place as one of the Three Graces. I believe Grandmother Brooks enjoys the Grange as much as any of the younger sisters, and fortunate is the Grange that claims her genial manners and kind words.

I will not go into the details of the order of exercises, as the PATRON contained a good account of it, but will say that the day was not half long enough to hear from all. Usually on such occasions, when they get well warmed up, they are liable to get off some spicy and well-seasoned hits.

The entertainment that the sisters had prepared for the physical was not second in its appreciation to that prepared for the mental.

Temescal Grange is fortunate in one respect, she has two brothers that are clergymen (who are engaged in farming as well as preaching) and are splendid readers and speakers, and they frequently enliven the Grange with their eloquence.

Bro. and Sister Overhiser improved finely on their trip to the National Grange. They look much younger and fresher. I believe it is inclined to make a person look and feel younger to go and exchange ideas and courtesies with representative farmers from all the States in the Union.

In the evening several of us went to Sister Dewey's house and took tea with her. By invitation, a good company went to Bro. and Sister Frink's house, where we spent a pleasant evening. This brother and sister have things just about as handy as money and brains will make them, and they have the disposition to enjoy them. It is a pleasure to me to see persons with a competency who know how to enjoy it.

When the evening was well spent, Sister Frink absented herself from the party, and in a few minutes we heard the rumbling of doors. Looking up, we saw her standing in the center of two large folding-doors—a living picture in an immense frame, with as handsome and inviting a background as I ever saw. The picture and background were the realization of some of my wild dreams. When I arose to my feet, I caught a bird's-eye view of that long dining-room table, which seemed as natural as life itself, and my critical eye failed to find anything amiss in the perspective. It was an agreeable surprise.

As it was an original picture and there were no copies for sale or to give away, we made a closer inspection. We found the frame large and substantial, the colors natural, the background made up of the substantial and realities of life. Sister Frink indulged us with a luxury that few have to dispense. It was a fine cup of tea grown in her yard and cured by her own hands. The ornaments and eatables on the table were fit for a Granger's wedding-feast, and were fully appreciated by the guests.

Bro. Dewey threw out some hints as though we should have been notified of this so we could have been a little more sparing of an editor's table. My answer was that a keen appetite knows no distinction between an editor's and a banker's table. Bro. Steele and I, fearing an editor's beds might be like his table, concluded we would tarry with Bro. Frink.

Sunday forenoon Bro. Steele and myself went and heard the Master of Temescal Grange preach. We participated in the sermon, the singing and the contribution-box. From the text, "Remember the Sabbath day to keep it holy," he preached a good, wholesome, practical sermon.

Sunday afternoon Bro. Dewey invited it seemed nearly all the Grange to meet at his house for dinner. I suspect that some of the brother's good neighbors saw the number of country cousins at his house and attempted to help him out.

In the center of the table lay one of the largest of turkeys square on his back. It was like the upheaval of a small mountain on a desert plain. An appreciative appetite never inquires into pedigree or ownership.

The editor thought the muscles that

had been running a pair of shears and a pastebush not sufficiently developed to attack such a monster, and invited the aid of some of the older members. All but one brother excused themselves as not being adepts at such work. The one brother said to me, in a low tone of voice, that he could put the fork in the bird's breast and never take it out until all was cut up. I replied, I would like to see him do it at his own table. He neither smiled nor said he would send me his card. I felt a good deal of sympathy for Sister Dewey as she helped her large family of 13 to their second Thanksgiving dinner.

The afternoon and evening were passed very pleasantly in social intercourse and music. It was one of the most pleasant and realistic entertainments that it has been my lot to enjoy for a long time.

Knowing that Bro. and Sister Frink were of a sensitive nature and easy to take offense, Bro. Steele and myself sacrificed our feelings in the matter and became their guests the second night.

There being no juveniles at this house, I escaped a great embarrassment that usually falls to my lot when traveling with Bro. Steele. Being a greater student of Chesterfield than the brother, it usually falls to my lot to make the introductions. When Bro. Steele's name is mentioned in a large family where they have been sent to Sunday-school and taught the Ten Commandments, the younger members will soon begin to gather up what property belongs to them that is lying around loose. Before confidence can be fully restored, I am compelled to spell the name.

Sister Overhiser and Bro. Steele go to the city, and Bro. Overhiser and myself go to Stockton. I go to Oak Home with the owner, and see him turn over the rich soil with his three gay plows and 15 head of horses. If the Worthy Master could get some purchase whereby he could drive the Grange through as he does his own business, we would soon be a healthy rival to Texas or Pennsylvania.

These three days among Grangers have been the happiest that I have spent for a long time, and I thought it a pity that the days were so short.

If the farmers will not come in and join the Grange and enjoy some of the good things of the earth, I am afraid more will fall to our lot than we can justly endure.

D. F.

Bros. Overhiser, Steele, Flint, Goodenough and Dr. McKaig, and Sisters Overhiser and Sanders did just give us one of the happiest greetings we ever had; so we don't mind the Lecturer's giving it away that an editor's bed and board are too hard even for "Flint" and "Steele" to endure.

San Joaquin County Pomona Grange.

MESSRS. EDITORS:—The third effort San Joaquin County Pomona Grange made to have a meeting, succeeded and we had a fine day and a good meeting. It partook of a Pomona Grange meeting more than any meeting that has been held for a long time. After the election of officers, they got to a genuine business meeting, and a great interest was manifested in all the subjects that were advanced on the calendar of business. It was suggested that we hold the election for officers of this Grange biennially instead of annually, and a committee was appointed to prepare a program for the four regular meetings of each year, and, if the business could not be completed at the designated times, to hold special meetings to complete the program. The installation of officers will take place the fourth Thursday, or the 28th day, of February, 1889. Fraternally,
J. D. HUFFMAN, Sec.

Lodi, Dec. 30, 1888.

About Grain Bags.

MESSRS. EDITORS:—The article of Bro. farmer Huffman has my hearty amen, and let every farmer in the State requiring bags join in one united demand against the bag fiends that have by their manipulations here and in India succeeded in nullifying, to a great degree, the effort of the farmers' legislation to turn their own prison labor, that they are taxed for, into some relief from this set of robbers. Let some united effort at once be made for our protection, for high rates of taxes, labor, freight and bags leave us to work for the powers that live by crushing us.

L. F. MOULTON.

Colusa, Dec. 25.

THAT laws securing to the people an absolutely secret ballot should be passed by all the States, was declared to be the sentiment of the National Grange, at its last session.

Work for the Australian Voting System.

Some agitation is now being made in favor of a new and stringent law governing our system of voting, in order to prevent frauds through various unfavorable influences exerted upon elections under our present regulations. The Australian system, recently published in our columns, or something quite similar, seems to most popularly meet the opinions of those who are anxious for a reform. We believe that this is one of the most important measures for farmers, as well as all other good citizens, that will come before the Legislature at the present session. The National Grange has declared in favor of strong action in this line.

We should like to have it discussed by different writers in our columns. We urge every honest voter to take an interest in this matter, and in one way or another do something to help bring about so desirable a reform. Let it be the subject of debate in each Grange, at its first meeting if possible.

We recommend that the Secretary of each Grange draw up a letter to the legislative representatives of the district, to be signed by as many members of the Grange as possible, and forward it to the representatives without delay.

Some of the points of advantage in the so-called Australian system of voting lie in the fact that illegal voting and counting of ballots are greatly curtailed, if not entirely prevented. Some of its important features may be mentioned briefly as follows: All the ballots are printed by the State. Each ballot contains the names of the candidates of all parties. Each voter enters the balloting-place separately, is provided with one ballot only by two attending Government officials. In an apartment by himself alone, the voter checks or marks such names as he desires to vote for. He then passes to the front of the ballot-box, deposits his ballot, and passes along some distance and out, no one but the two officers named being allowed to approach the voter in the voting apartment during the process of voting. All ballots not voted are accounted for and returned by the officials. This plan has worked well in other places, and it is believed, if adopted in California, would prevent nearly all the frauds and do away with most of the "political hangers-on" that the State is now cursed with.

Pleasing Incident in Stockton Grange.

MESSRS. EDITORS:—At our Saturday's meeting the Worthy Master declared a recess, when Sister Root, wife of our Worthy Secretary, presented each member with a paper sack of snowy popcorn, and each brother with a neat, round pocket-cushion filled with pins, as a fraternal New-Year token of love and hope of success in the coming year.

A hearty vote of thanks was tendered our sister whose heart is full of love for all that is won by patient toil and honest principle.

Kind acts are mightier in our loved Order than whole afternoons spent in telling that we don't do as we ought to, and combing us the wrong way, with the best of intentions.
Stockton, Dec. 30. W. D. A.

THE LAX LAND LAWS.—A correspondent of the Visalia Delta thus swells the cry in favor of repealing all enactments regarding public lands except the homestead law: There are a number of timber claims on the plains which the holders have allowed to go over a year without commencing improvements as called for by law. Most of them have been promptly contested by the settlers in this vicinity, but they are a great impediment to close settlement of the country. What with railroad and school sections, absentee owners of homestead and preemption claims, and uncultivated timber claims, the actual settlers are widely scattered. It seems to be the almost unanimous opinion of actual settlers who are improving their lands, instead of relying on "improvement of witnesses" to obtain title to them, that all the land laws should be repealed except the homestead provisions. Uncle Sam has lavishly bestowed his land upon anybody as though he expected to annex the earth, buy the moon and foreclose a mortgage on Jupiter before the end of this century. Even those who are taking advantage of his careless, even criminal, generosity, realize that a halt should be called.

A RESOLUTION was passed by the National Grange at its late session urging upon Congress the importance of passing a law so that the postmasters of this country shall be elected by the patrons of the different offices, and not appointed by the Postmaster-General as they now are.

Corned Beef and Vegetables.

MESSESS. EDITORS:—The following recipe appeared originally in the *New England Farmer*:

“Corned Beef.—Whoever neglects from ignorance or other cause to cure a quarter of beef, or more if the family is numerous, neglects a high privilege and loses a substantial item and luxury from his table. The pickle should be made as follows: To six gallons of water add nine pounds of pure salt, three pounds of brown sugar, one quart of molasses, three ounces of saltpetre and one ounce of pearlsh. Let these ingredients be boiled and carefully skimmed as long as impurities from the sugar and salt continue to rise to the surface. When the water is ready to receive the rest of the material, pour in the saltpetre *only*, and when dissolved and the water boiling, dip your beef, piece by piece, into the boiling saltpetre, holding it for a few seconds only in the hot bath. When the beef has been thus immersed and becomes quite cool, pack it in the cask where it is to remain. Then proceed with your pickle as at first directed, and, when perfectly cold, pour it upon the meat, which should be kept down by cover and stone. The immersing of the beef in hot saltpetre-water contracts the surface by closing the pores, and prevents the juices of the meat from going out into the pickle. The saltpetre absorbed by the contracted or cooked surface will modify the salt that passes through it, the whole producing the most perfect result.

“Beef cured in this manner will preserve its color, and cut almost as juicy and inviting as a fresh roast. It is as unlike the hard, blue, briny, knotted substance sold at markets and frequently cured at home, mis-called ‘corned beef,’ as a sirloin differs from a steak cut three inches back of the horns, and sold for a porter-house.”

I commenced operations at the point reading, “When the water is ready,” etc., as I could not add all the ingredients mentioned to water, and then afterward “pour in salt petre only.” It proved a success; only it did not keep a year as is claimed for “Panzy’s” recipe. It is not now visible to the naked eye. Pork is now king; for on a ranch in winter-time meat must be had. I have vegetarian tendencies and believe in the theory, but practically it is “Arise, Peter, slay and eat.”

Speaking of vegetarian tendencies reminds me of vegetables. I have tried to dispense with nice fresh vegetables brought around by the Chinamen, but have only partially succeeded. The Chinamen used to come around very regularly, till last year they saw me sowing peas, lettuce, etc., and never since then have they been visible. I see plainly I am to be boycotted, or whatever it is. So we have already strawberries and cabbages set out. Now if “Panzy,” or the editor, or some equally good authority, will, each month, tell what vegetables should be put in the ground and how it should be done in California, not New England, they would favor every tenderfoot farmer among your readers, “of whom I am chief.” And seriously I believe it would help old stagers, who do not like to acknowledge ignorance, and so do not grow vegetables, but depend on the providence of Chinamen. Yours respectfully and thankfully,

J. W. MACKIE.

[The suggestion which Brother Mackie makes in the last paragraph in his letter is a good one, and we shall be happy to carry it out. To do so, however, we shall need the aid of readers in all parts of the State, from San Diego to Siskiyou, and from the seashore to the Sierras. Will you who have had experience in the matter write us

- (1.) What vegetables you have succeeded in raising in your locality;
- (2.) At what time, and
- (3.) In what manner you have planted, and what care you have given each variety; also
- (4.) What vegetables—if any—you have tried with unsatisfactory results.

We suggest these questions for consideration in every Grange, and invite the Secretary to report discussions and conclusions. If you are not so fortunate as to have a Grange in your neighborhood, but are fortunate in having individual experiences, please report them for the benefit of the “tenderfoot,” and thus oblige both him and Eds. PRESS]

A NATIONAL CHILDREN’S DAY is to be declared by the Master of the National Grange at some specified time each year. The custom of proclaiming Children’s Day by the Masters of the Michigan State Grange has long been in use, and one that is looked forward to by the children and parents with great pleasure, and is almost universally observed. It is believed that it would give to our Order an additional incentive if the Master of the National Grange would proclaim such a day.

Grange Elections.

SAN JOAQUIN POMONA.—S. W. Sollars, M.; R. Pixley, O.; Sister Joseph Adams, L.; V. Jahant, S.; E. G. Williams, A. S.; A. A. Gurnsey, C.; E. Fiske, T.; J. D. Huffman, Sec.; E. R. Elliott, G. K.; Sister J. L. Beecher, P.; Sister W. B. White, F.; Sister A. J. Nelson, Ceres; Sister S. C. Waters, L. A. S.

SIERRA VALLEY.—N. N. Strang, M.; A. M. Haselton, O.; Mrs. M. Richard, L.; Mrs. R. Weed, S.; A. Hubbard, A. S.; Mrs. G. J. Johnson, C.; Mrs. R. L. Olsen, T.; A. E. Knear, Sec.; J. Hubbard, G. K.; Mrs. B. F. Lemmon, Ceres; Miss M. A. Lawry, F.; Mrs. Eva Hostetta, P.; Mrs. N. N. Strang, L. A. S.

WHEATLAND.—Frank Kirshner, M.; John Landis, O.; Mrs. L. Keyes, L.; Michael Horner, S.; A. Hollingshead, A. S.; Mrs. Mary Hammond, C.; Mrs. Lou Fraser, T.; I. W. Huffaker, Sec.; Hugh Morrison, G. K.; Mrs. L. W. Hamilton, P.; Mrs. C. K. Dam, F.; Mrs. P. Ostrom, Ceres; Miss Lizzie Oakley, L. A. S.; Miss Rosa Ostrom, Organizer (appointed).

Installations.

Bennett Valley.....	January 5
Danville.....	January 5
Eden and Temescal.....	January 12
Elliott.....	January 12
Enterprise.....	January 5
Magnolia.....	January 12
Pescadero.....	January 5
Roseville.....	January 5
San Joaquin County Pomona.....	February 28
Washington.....	January 5
Woodbridge.....	January 8
Yuba City.....	January 5

NOTE.—The Secretaries of Granges are requested to forward reports of all election and other matters of interest relating to their Granges and the Order.

The Press Assists the Lecturer.

Bro. Mortimer Whitehead, Lecturer National Grange, in his annual report to that body, said:

None can doubt the good accomplished by our many good lecturers, and the grand service being performed by our Grange papers; but through them we can only reach a comparatively small portion of the great agricultural class. We must place the Grange and its work right at their firesides, in the local and other papers they already are taking. This will create an interest, a thirst for more knowledge, an inquiry for the “way,” then follows organization, a strengthening of our lines, and better support to our own Grange press. The lecturer’s voice does good, but to proceed, go with it, and follow after and complete the work, we must use the printed page, following the successful methods of business men, politicians, churches, and all great reforms that are making progress. I could almost wish that it was one of our laws that Patrons in each county of our Union should be required to furnish their local papers with a column or more of items each week, of Grange principles, its work and progress. That the papers will publish such items I have no longer doubts, since some of the oldest and largest journals of our country have this year asked to be regularly supplied with our literature. Let us devise ways and means for more concerted and extended effort in this direction.

Treatment of Tramps.

The Portland *Oregonian* of Dec. 28th has some plain suggestions about the tramp question, as follows:

Last evening Mr. Ira F. Powers visited the city jail at supper-time, to see if a couple of his strayed lambs had been perchance gathered into that fold. He was present when supper was served. A man went into the big cell with about a bushel of bread, which he placed under the table which surrounds one of the pillars. Hardly had he let go of it when a big tramp seized the basket and upset out all the bread on the table, and all hands grabbed for it. Some secured three or four pieces and some got none. Then a plate of a sort of Irish stew was served out to each, and a cup of coffee.

“It was too good a supper for them,” said Mr. Powers. “If the city will do as I want it to, build a place where these fellows can be kept apart from each other, and send them out to work on the streets, this city will soon get a bad name with this class, and we shall not have one tramp where we have a dozen now.”

“The tramps tell one another where the best jails are, and where they are best fed and least worked. I want the city to get as much notoriety as I have. Ask any of the tramp boys who come in here if they have heard of Ira Powers of the Boys’ and Girls’ Aid Society, and they will tell you they have, some in Salt Lake, others in San Francisco, Ogden, Missoula, Spokane Falls, Seattle, etc. By putting the boys in solitary

confinement, they soon come to terms and promise to behave.

“I have one in my store on trial now. He said he would do anything I wanted him to and mind what I told him if I would not send him to the jail, so I gave him a trial. Neither the men nor the boys care a snap for being sent to jail, if they are allowed to herd in a warm room, and are well fed and allowed to play cards, sing, and amuse themselves by teaching each other all the wickedness they know; but if confined in separate cells and made to work, they will take pains to keep out of jail. The city needs a new jail with plenty of small rooms where vagrants, tramps, etc., can be kept by themselves.”

The Legislature.

The California Legislature convenes at Sacramento on Monday next. The regular session is fixed for 60 days only. Any important bills which may be expected to be got through should be presented early. We have already called attention to the resolutions which the State Grange passed in favor of legislation as follows on the following subjects: County Assessment Blanks, Enforcement Railroad Taxes, To Regulate Appropriations for and Prevent Gambling at Agricultural Fairs, and Concerning Convict Labor.

The members proposing legislation on the above subjects and offering resolutions which were adopted at the last session of the State Grange have been requested to form bills to be presented to the Legislature. So far we have received no bills for proposed enactment. We are quite certain, however, that several are being prepared. We hope the authors of all the resolutions will show sufficient good faith and zeal to prepare, or cause to be prepared, suitable bills to carry out their opinions.

This Legislative Committee should soon meet, organize, and commence work in good earnest. Let every Patron and farmer acquainted with more or less members of the Legislature who are farmers, write and urge them to hold a meeting for conference in order to use their united strength for securing the enactment of all good bills coming before the Legislature. Also, form “a destroying alliance” for killing every evil proposition which may be laid before the Senate and Assembly.

We also urge all knowing or thinking of any information which may be of value to the above-named Legislative Committee, to communicate the same to them. Furnish the names of any members with whom you are acquainted that our Legislative Committee might likely prevail upon to co-operate with in endeavoring to effect wholesome legislation.

Frauds on Farmers.

Although we have from time to time warned our readers against ever giving their autographs to strangers, under whatever pretenses they may seek to obtain signatures, we believe it will be salutary for many to have the following, from one of our Eastern exchanges, brought to their notice:

I do not think the subject of frauds which a certain class of men are perpetrating on the farming community, should be dropped, and I think that every farmer who knows of any swindle should report it. There are a great many complex frauds. I use this term because their complexity makes them hard to understand until the farmer is hooked in for a considerable amount. Besides, the law upholds swindling to a certain extent. It doesn’t make any difference how a swindler gets his name, so he attaches a note of hand to it and puts it in the bank—the farmer has the note to pay. If the law would not uphold innocent purchasers, who buy notes of strangers, a great deal of this swindling would soon be stopped.

A few years ago, a well-to-do farmer close to Swits City, Ind., received a letter from some parties, making inquiries as to the country, its productiveness, soil, minerals, etc., a letter which almost any one would have answered, especially if he had his country’s good at heart. A short time after he had answered the letter he was informed that a note of \$700 was in one of the Indianapolis banks which had his signature. The farmer was terribly surprised, as he had no paper out. So he went up to the city and found the note with his name attached, which, he says, was his handwriting, or had so close resemblance that he did not try to deny it, but how did it get there was the question. A long litigation was the result, but the innocent purchaser prevailed, and the farmer had the note to pay.

About ten years ago one of these insinuating “daredevils” appeared in our county with his hay-fork. He swindled some 30 or 40 farmers to the amount in all of about \$10,000. The farmers clubbed together and hired a lawyer to defend them. The innocent purchaser found out where the swindler lived and sent for him to use him as a witness. When he appeared the farmers used some “mild persuasion,” when he admitted that he had swindled them. They had him arrested, and to-day he is reposing in the Illinois State prison.

This summer a man came to the directors of our school district. He said he was an agent of a school-furnishing house of Chicago and in-

troducing maps. The directors told him they did not wish to purchase anything in his line until they had consulted the people. After some conversation he proposed to call the directors of the district together, but said that he would like to have them give their names, showing their willingness to meet. The meeting was never called, and a few days ago the directors were informed that the firm had shipped them maps to the amount of \$43, as per order. The directors are terribly angry about it, and talk of litigation.

I will relate another trick that is being played on the unsuspecting farmer in different portions of the country. A man drives up to the farmer’s house, in a one-horse wagon with, perhaps, a half-dozen wagon-jacks, or some other worthless implement. He would be much obliged if the farmer would let them lie under his wagon-shed for a few days; his family is sick way up in Michigan, and he has been telegraphed for and has to go home. Of course, under the circumstances, the farmer grants him the privilege. So he stores the implements, gets in his wagon, and starts away. But after going some distance, he turns and comes back, and tells the farmer that he had forgotten to ask his name and postoffice, at the same time presents the farmer with a pencil and blank card. The unsuspecting man writes his name in full. The pencil is indelible. In a few days he is informed that there are a hundred or two wagon-jacks, shipped to him per order, and he cannot get out of it, as his name is genuine.

One more trick is being played extensively in the more rural districts of the West. A finely dressed gentleman presents himself at the mansion of one of the wealthiest farmers in the county, and informs the family that he is a colporteur of a certain church, which is always the same church that his intended victim holds to. His satchel, well filled with bibles, proclaims the truthfulness of his assertion. He informs them that if any one in the family has not a bible, he is authorized to present them one free. After discussing the topics of the church and weather, if it is in the middle of the day he asks for dinner; if in the evening, he asks to stay all night. After being accommodated, he asks his bill, which, generally, he is told is nothing, but the bible man insists that they receive something for the trouble he has caused the family, and states that the church pays his expenses. After explaining to the farmer how it is, the farmer takes his pay, after which the colporteur takes a little book out of his pocket and asks the farmer to sign his name and the amount of charge, stating at the same time that this would be a voucher upon which he can draw his expenses. The sequel to the whole is a note in the bank with the farmer’s name to it, which is genuine, and he has to pay the innocent banker from \$300 to \$500.

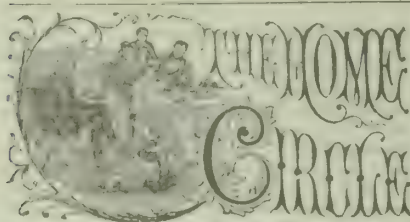
Now, brother farmers, these are but a few swindles that we as a tolerant class are subject to. We allow ourselves to be the victims of every blarneying agent, and bring upon ourselves such epithets as “green as a farmer,” “hay-seed,” and others. Now, I propose that our Legislatures pass an Act making a note of hand void, unless given in the presence of one or more witnesses, whose signature on the margin would be proof of its genuineness; that such witness shall not be anyway responsible for the payment of such note, but merely witness. Do not put your name to anything a stranger presents you.

DUES TO THE NATIONAL GRANGE.—The following shows the amount of National Grange dues paid by each State Grange during the year: Alabama, \$20; California, \$98.80; Connecticut, \$88.32; Georgia, \$43.60; Illinois, \$214.22; Indiana, \$127.49; Iowa, \$45.39; Kansas, \$84.84; Kentucky, \$29.34; Maine, \$651.82; Maryland, \$35.83; Massachusetts, \$264.37; Michigan, \$571.98; Minnesota, \$30.14; Mississippi, \$51.56; Missouri, \$182.60; Nebraska, \$31.89; New Hampshire, \$271.62; New Jersey, \$85.53; New York, \$817.71; North Carolina, \$76.85; Ohio, \$324.14; Oregon, \$106.90; Pennsylvania, \$515.45; South Carolina, \$28.57; Tennessee, \$12; Texas, \$358.15; Vermont, \$84.50; Virginia, \$35.45; West Virginia, \$54.05; Wisconsin, \$133.19; total, \$5476.30.

ROSEVILLE GRANGE will have its officers installed by Worthy Master Overhiser today. Worthy Lecturer Flint will probably be present at this meeting also. We hope there will be a goodly number of Patrons present. We should get a good report from this important post of the P. of H.

GOVERNMENT RECEIPTS AND EXPENDITURES. Gen. Rosecrans, Register of the Treasury, has favored us with a copy of his report to the Secretary for the fiscal year ending June 30, 1888—a volume of 203 octavo pages, mostly occupied with tabular financial statements. The Register’s Office was created to keep account of all receipts and expenditures of the Government, and its duties have grown larger and more complicated until 108 persons are now employed in their fulfillment.

DISAPPEARED.—Chas. F. Merle, president and manager of the California Bonemeal and Fertilizer Co., and agent for N. K. Fairbank & Co., a commission merchant who has lived in this city for 16 years, and was looked upon as a thorough business man, is missing since Dec. 21st.



Don't Marry a Man to Save Him.

A cry comes over from Oregon
For a carload—not of women wan,
But of women of blood and brain and brawn:
"Come, marry these men to save them!"

"There are thousands here in these haunts of sin
Spending their money in game and gin,
Corrupt without and corrupt within;
Come, marry these men to save them!"

"They have been somebody's pride and joy;
Somebody's petted and pampered boy;
Spoiled for the lack of a maiden coy;
Come, marry these men to save them!"

"You must be healthy, pure, and strong,
Able to breast and bear the wrong,
Willing to carry a burden along;
Come, marry these men to save them!"

"You must be leader, but always seem
To be gentle and helpless as love's young dream,
And leaned upon when you seem to lean;
Come, marry these men to save them!"

"You must be cleanly, and kind, and sweet,
Making a path for their godless feet,
Up to the grace of the mercy seat;
Come, marry these men to save them!"

O Woman! you're sold at a fearful price
If you wed your virtue to that of vice,
And trust your soul to a chance of device;
Don't marry a man to save him!

A life that is pure needs a pure one in turn,
A being to honor and not to spurn,
An equal love that shall constant burn;
Don't marry a man to save him!

A woman's life is a precious thing;
Her love is a rose unwithering;
Would you bury it deep in its early spring?
Don't marry a man to save him!

You can pray for his soul from morn till eve,
You can win the angels to bring reprieve
To his sin-bound heart; but you will grieve
If you marry a man to save him!

God gives to woman a right to press
Her claim to a man's best manliness;
A woman gives all, should a man give less?
Don't marry a man to save him!

—SARAH K. DUTTON.

Wives of America.

[Original—By M. W.]

I was sitting one day, not many weeks ago, at *table d'hôte* in one of the many charming little hotels which are everywhere to be found in Paris, listening to an animated discussion between an American and a French gentleman regarding the women of the two countries as wives—that is, the women of the middle classes. Of course the Frenchman upheld his own countrywomen and the French laws. He contended that the wives of France were more heroic in assisting their husbands in the dreary toil for a livelihood than the women of America, who, he said, had no higher ambition than to dress, look pretty, and flirt.

Before proceeding further, I must here explain some of the rules pertaining to marriage among the *bourgeois* class. It may not be generally known, but it is the fact nevertheless, that every girl who marries in France must have her "dot"—that is to say, she must have a certain sum of money to bring her husband, which is either put in his business or is used to provide a home for the mutual benefit of both. When a girl is "in the market" no one cares to ask, "Is she pretty? What is her age?" but "What is her dot?" This refers to both classes, for in any case money must be religiously piled in the scales with the daughter of the house in securing a husband.

But with the *bourgeois*, if the parents or relatives of the girl cannot give the amount, the godparents try to supply the deficiency. If this fails, the poor young woman has no alternative but to forego the matrimonial ties until she can by her own industry save up a sufficient sum worthy of being considered the necessary "dot." It may take years to accumulate it, and when it has been accomplished, the suitor, who has been waiting all this time, marries her in the most matter-of-fact way, and they at once start in business together, becoming partners more, perhaps, in a commercial point of view than in the more finer feelings. True, they go to their vocations together and at night return home side by side, and the work of the day becomes a common interest. What annoys or interests one affects the other. They talk over the business of the day together,

discourse on fortunate or unfortunate speculations while the husband eats his dinner with his "partner." In the evening he sits by the family hearth and reads the morning paper with the partner, and together they look over the household expenses with the neat white-capped maid. You see it is much cheaper to pay the price for a servant—a sort of maid-of-all-work—than for that of a clerk in the business; so for this reason Madame gives up all the pleasures of domestic home life for the purpose of enriching the coffers a trifle more.

To return to the dinner-table argument. My French friend concluded with: "No French girl goes to her husband in an impoverished condition. What becomes of the poor girls of America?"

Arriving at the conclusion that my opponent had gone too far in underrating my countrywomen, I said: "What becomes of them? They get the best husbands and protectors in the land. What do they bring their husbands? A true and happy heart, a yielding, loving nature, and a clinging confidence which makes eternal sunshine in the home circle. Flowers, though only to beautify, should grow beside the kitchen garden; and so with our lives. A respite from all thoughts of work is what man needs. This is what the American looks for in his gentle life-partner. Surely a man in time will weary of having only the companionship of his business associate, for there are sweeter ties than this. There are many hours in a man's life when he would fain fling aside for a brief while the cares and tumult of business and live over the poetry of his youth. Without this, existence would be a desert waste—a fever and a sad biting regret."

I had then in my mind the English poet who said:

"Tis sweet to hear the honest watch-dog's bark
Bay deep-mouthed welcome as we draw near home;

'Tis sweet to know there is an eye will mark
Our coming and look brighter when we come."

Is not this woman's sphere? Is it not one of the holiest missions on earth to spread gladness all around? For whom else does the wife decorate her home with pretty ribbons and sweetly scented blossoms? Whose taste and fancy does she consider when preparing the evening meal? For whom does she change her dress and don a better collar and a bit of lace but for the one whose home she is the center of attraction? How many little hands and faces are daily washed and tangled locks arranged because papa will soon come home? Surely women should strew life's pathway with roses wherever there is a manly heart to cheer or arm to protect. Yet I am very much afraid there are many wives who do not make their homes as attractive as they might for the man who labors and battles with the world all day, yet sighing for the kiss of welcome which never comes.

Is it a marvel, then, that such a man will wander to the club-house, the wine-room and other objectionable places, and over a game of cards or a glass of grog seek the pleasure of forgetfulness? To make home pleasant surely is woman's sphere. Let the husband feel there is no place on earth like home. Let it not be simply a dwelling where he can eat and sleep, but home in the fullest sense of the term, where the very atmosphere breathes of sweet accord and thoughts sublime. To be the queen of his heart and home and seek no other throne, should be the highest aim of the truly perfect woman.

After an extended European tour, where I saw women assisting in taking canal-boats up the Crinan and Caledonian canal, in Scotland, harnessed to wagons in Italy, assisting in Germany to build houses by carrying bricks up steep ladders, eking out a living by begging in the streets of London, and running hotels, butcher-shops and all other lines of business in France, I have a higher opinion—a veneration I should say—for the men of America than I ever had before; men who are willing to take our young girls who have no "dot" to bring with them, and who think only of making home happy for those who are willing to labor for them.

ON THE BIRTH OF A SON.—The editor of the *Napa Register* thus notices an est. con's. arrival at the estate of paternity: We congratulate our neighbor of the *Reporter* on his afternoon edition. Believe us when we tell you that a boy is a handy thing to have about the house. While very young he serves in place of an alarm clock and keeps his male parent running on schedule time, like a restaurant, at all hours of the day and night. Later he performs whatever mischief there is to be done on the premises and does it in much better form than the neighbors' chickens. The dirt necessary for his comfort need not be hauled and paid for at 50 cents a load; he'll find it if he has to wade through mud up to his knees and go across lots on stilts to the other end of town after it. As to clothes, he doesn't mind much whether he has any or not. It is only when

he first falls in love that he will care to observe cleanliness or wear a "boiled shirt." Because of him the "devil" in the office will get a rest, for you'll have a smaller one at home to scold. And then to think of his future, the fond hopes to be realized, the ladder you rear for him to climb as you say to yourself and friends, "I'll make an editor outen o' him." Oh, we've been there. We know how "stuck-up" you feel; hence this tribute and with it again our sincerest congratulations.

Women in Council.

The following circular is being sent all over the country by Miss Frances E. Willard, who is well known on this coast:

Miss Frances E. Willard of Evanston, Ill., president, and Mrs. May Wright Sewell of Indianapolis, Ind., corresponding secretary of the National Council that was organized in Washington, D. C., as the outcome of the great council of women held there last spring, are laying the foundations of a new and mighty work. Its purpose is to secure in every leading city and town of the United States a "Women's Council," made up of the presidents of all societies of women, having a headquarters of its own, with an office secretary, and entering unitedly upon such lines of work as all the women can agree upon. It is believed that such a plan of interaction combined with the organic independence of each society, will do away with the overlapping of plans that now lead to much waste of time and energy.

Also that it will broaden the horizon of every woman who belongs to an organized society of women, and tend to larger mutual toleration between guilds heretofore separate and to a great degree non-sympathetic. As an illustration of the practical working of the plan it may be stated that such a council of women could readily arrange for petitions from all societies of women in any given town or city asking that women should be placed upon the School Board, upon the different boards intrusted with the care of public institutions for the care of the defective, delinquent and dependent classes; asking for the admission of women to local, county, State and national organizations, such as press associations, medical associations, ecclesiastical associations, etc.; asking that the doors of such schools and colleges as are not yet open to women might be thrown wide open for their admission; asking for better protection for the home and heavier penalties for all crimes against women and girls.

Women could use their influence to secure for girls in the public schools better opportunities for physical culture, and the enforcement of the new laws for instruction in hygiene. They could also help to engraft the kindergarten system on the public schools. They could do much for the protection of shop-girls, in furnishing them better conditions of living by securing local ordinances requiring the best sanitary conditions; limiting the number in one room, and in every way ameliorating the present situation, while using their utmost influence to increase the wages of this class of workers.

It will be readily seen that greatly added force will come from any such movement, whether local, State or national, when it is backed up by the united societies of the locality, State or nation, and that with a small expenditure of money and time all these societies, while carrying on separately their own separate work for which they were organized, may yet do an immense work for womanhood at large along the lines on which all can agree to unite in sympathy, influence and effort. To carry out such plans and on so large a scale will require time, but there is every reason to believe from the experience and success of the women who have taken up this work that they will persist in a quiet but intelligent endeavor, having in view the ends herein stated until success shall crown their great but altogether practicable movement.

HABITUAL GOODNESS.—It seems to be a common failing among good men who undertake to improve bad men that they consider their work ended when the bad men give expression to virtuous sentiments. But it is the steady, unwavering, unquestioning obedience to law that is the best proof of a man's fitness for a responsible position; and this attitude is not acquired suddenly and impulsively, but is the result of long and severe training. Erratic display of kindly and honest feelings does not demonstrate beyond peradventure that a man is a good man, but the persistent adherence to a right course is the best evidence of such a condition. An engine that runs 40 miles an hour and keeps on the track all the time is much to be preferred to an engine that runs 60 miles, but is liable to run off the track. Most of the goodness in this world is, indeed, only a matter of habit. Men act largely on instincts; and these instincts, whether honest or dishonest, are the result of the habit of themselves or their ancestors. By far the larger part of the average man's actions are based on habit. A very little effort will start us rightly, and from the performance of little duties we obtain the moral momentum to carry through successfully great and noble plans. Practice makes perfect in the moral and mental as well as in the physical world, and lack of practice results in debilitation and death.—*The Summary.*

Affirm the Good.

As the Mohammedan thrice daily calls to Allah, as the devout Catholic never fails to repeat the prayers of his rosary at stated times, so he that believes in universal, omnipresent Good should never fail in making the affirmation: "All is Good."

It is a proven law that affirming the good and holding to the thought with steadfastness and intensity verily brings the good. The spoken word, the uttered thought, has power to make the principle of good manifest in our lives.

In the real and the true life—the life of the spirit—we have learned there is only good, and the great discovery that has been made in law of spirit is that declaring good makes it manifest, makes it possible that no evil, no sin, sickness or sorrow shall come to him who thus declares it. How is this? The Good is ever present and we have only to command it to receive it. The good is for all—not a select few who can teach or write upon abstruse subjects, but for the simple as well as for the great. Each individual has the ability to prove it.

"All is Good." No more magic sentence was ever uttered! In these words is the beginning and ending of spiritual science, is the sum and substance of all that is written or spoken upon the subject. The fervid utterance of these words brings relief to the suffering, peace to the sorrowing and right-living to the erring. Affirm the good, morning, noon and night, carry the thought at all times in your heart, and lo! as if by magic the good is yours. Pains are forgotten; envy, jealousy and strife are blotted out; and in their place is peace of mind, ease of body, besides ability to accomplish allotted work.

People have long been taught to wait upon the will of God for His blessing and think it is sacrilege to believe that the blessing is to be had by the affirmation, by the word of command. Are we not a thought of God? Are we not one with the Spirit of the universe which is ever present? Then have we not a right to demand that God—the Good that is in us—shall show forth states of happiness and efficiency?

Some come into the knowledge and understanding of the good more speedily by denying the power of evil. They do this by repeating over and over again: "there is no evil." By this is meant that to them there is no power in evil. Evil is only a negative of good and holds the same relation to it that darkness does to light, or cold to heat. The power and effect of evil or error can be erased by holding to the thought, "there is no evil." Persons have been known to attain to great spiritual growth and efficiency by steadfastly giving utterance to the thought, "there is no evil."

Evidently this is only another road to spiritual unfolding and the knowledge that all is good. To most people the negation is not so potent in development of character in resistance to sin and sickness as in the affirmation that "all is good." Before this avowal, the petty annoyances of life disappear; the invalid forgets his pains; the fretful child becomes a constant joy, and the discouragements in daily life vanish as a dream. The good, the real, becomes manifest. Before this affirmation, too, the monster fear flees forever. Fear of climate, fear of malaria, fear of poisoned food, fear of foes, of failures and accidents all dissolve as vapor does before the sun. All is good to the real spiritual self, which being at one with the Spirit of the world can experience no evil. Blessed joy to all who suffer, that believing and affirming the same brings the realization! To them there is no more sin, sickness or sorrow. All is good.—*Alice B. Stockham in Woman's World.*

HAVE YOU A BOY TO SPARE?—"The saloon must have boys, or it must shut up shop. Can't you furnish it one? It is a great factory, and unless it can get about 2,000,000 boys from each generation for raw material, some of these factories must close out and its operatives must be thrown on a cold world, and the public revenue will dwindle. 'Wanted—2,000,000 boys!' is the notice. One family out of every five must contribute a boy to keep up the supply. Will you help? Which of your boys will it be? The minotaur of Crete had to have a trireme full of fair maidens each year; but the minotaur of America demands a city-full of boys each year. Are you a father? Have you given your share to keep up the supply for this great public institution that is helping to pay your taxes and kindly electing public officials for you? Have you contributed a boy? If not, some other family has had to give more than its share. Are you not selfish, voting to keep the saloon open to grind up boys, and then doing nothing to keep up the supply?"

A NEW TOBACCO DISEASE.—A Constantinople journal states that the cultivation of tobacco is in danger of a disease hitherto unknown. The malady has appeared in Greece, in some plantations of the Phiotide. The plants, appearing very healthy during the day, bend suddenly at night to the earth and the next day are dead.

A WALKING DAIRY.—Grass Valley has a walking dairy. A Chinese drives a cow from house to house and milks his customers' orders in plain sight. They get their milk straight and John gets the coin for each order.

Down Into the Dust.

Is it worth while that we jostle a brother
Bearing his load on the rough road of life?
Is it worth while that we jeer at each other
In the blackness of heart? that we war to the
knife?

God pity us all in our pitiful strife.

God pity us all as we jostle each other;
God pardon us all for the triumph we feel
When a fellow goes down 'neath his load on
that heather

Pierced to the heart; words are keener than
steel,

And mightier far for woe or for weal.

Were it not well, in this brief little journey
On over the isthmus, down into the tide,
We give him a fish instead of a serpent,
Ere folding the bands to be and abide
Forever and aye in the dust by his side.

Look at the roses saluting each other,
Look at the herds all at peace on the plain—
Man and man only makes war on his brother,
And laughs in his heart at his peril and pain;
Shamed by the beasts that go down on the
plain.

Is it worth while that we battle to humble
Some poor fellow-soldier down into the dust?
God pity us all! Time oft soon will tumble
All of us together like leaves in a gust,
Humbled indeed down into the dust.

JOAQUIN MILLER.

Betting.

In a sermon on "Pledges and Promises" Rev.
J. Kirkpatrick of Philadelphia made the follow-
ing remarks in regard to the practice of betting:

"There can be no question as to the immor-
ality of the practice, and it is certain that it
affects injuriously the happiness and the pros-
pects of many homes. Many stake their all
upon a contingency about some comparative
trifle without pausing a moment to reflect upon
the serious loss and possible ruin it may entail.
"The recent Presidential election has called
forth this evil spirit to a remarkable extent.
One may be disposed to laugh at the absurdity
of the situation when one neighbor is seen
wheeling another around the square in a push-
cart, or when a minister of the gospel conde-
scends to take orders for a given time for sew-
ing machines in order to meet liabilities incur-
red under the inexorable law of a game of
chance; but it is pitiable to see the more terri-
ble consequences to morality and human hap-
piness when the stakes are heavier and when
success on the one side means disaster on the
other. " * Indeed, in more than one case
the results have been so shocking at this time
that rather than contemplate their inability to
pay, or look upon the needless ruin brought to
wife and family by their folly, persons have
taken their own lives.

"The betting man is a gambler, and he is a
coward at heart. He has neither the courage
nor honesty to acquire money by lawful means,
and flatters himself that he may make it dis-
honestly, and upon the plea of honor he de-
mands the fulfillment of the pledge even at the
risk of another's ruin. No Christian can con-
scientiously give or take a pledge under circum-
stances like these. If the cause we seek to
serve is good we cannot help it by such cor-
rupting influences, and the destiny of one's
country, represented by the party in power,
ought to be so sacred as to place it beyond the
reach of such miserable and mischievous
trifling. In the spirit of faith and prayer we
should look for the fulfillment of God's
promises to our beloved country—that those
who are providentially raised to power may
rule in the fear of God, and that as a united
people we may grow and prosper."

American, Though Naturalized.

A tourist in San Diego county tells in the
Cleveland Leader and Herald the following
anecdote, whose lesson many a native American
may well take to heart:

It was Election day when Alpine, a small set-
tlement up in the mountains, was reached. In
a little schoolhouse an Election Board was dili-
gently serving its country, and the handful of
voters who lived in the precinct were gathered
about the building, apparently disposed to make
a holiday of the event.

During the course of the balloting, which, in
that sparsely settled country, dragged lazily
along, a German approached the table and es-
sayed to cast his vote.

"Where do you live?" asked the clerk. The
man named some place, and casually remarked
that he had walked six miles that morning.
"You don't live in this district; you vote in
Descanso," said the clerk.

"Descanso!" exclaimed the German, "Vere
is dot?" The clerk told him it was 14 miles
from Alpine, and then pointed out the road he
must take to reach it. "Vell, I must get away
purty gwick den if I walk dot far," he said, and
started off in the direction of Descanso.

There was an example of pure patriotism
worth coming to California to see. All that the
people of Alpine knew about the German was
that he had just taken up a sheep ranch back
in the valley.

LITTLE BOY: "Pa, what does phenomenal
mean?" Father: "It is a word used by the
citizens of Illinois, Iowa, Kansas, and Nebras-
ka when they refer to the growth of their re-
spective towns. It doesn't mean much."

YOUNG FOLKS' COLUMN.

The Coral Cavern.

[Written for the RURAL PRESS by DAGMAR MARIAGER.]

"I had a dream which was not all a dream."

My friend Rover and I had been out in the
country hunting. Yet we had not been hunt-
ing, or if we had, then it had been a weapon-
less hunt, and one without harmful intent.
True, we both had our teeth and nails, more or
less concealed weapons; but we were not
savages. We did not want to kill anything
and thereby have our names flying as those of
a pair of bloodthirsty creatures. No, no!
Rover and I had no taste for fame, at least
not when gotten in that way. We had not
been out for a week or two, and we simply
wanted a few hours' tramp in the open
country to stretch our limbs in the freer air,
and enjoy anything that might be enjoyable
by the way.

And we came home tired. I had probably
covered ten miles. Rover had circled and
doubled on his own tracks, as dogs will when
going anywhere. Had he sported a distance-
measuring machine he would probably have re-
corded thirty miles as his forenoon's work.
However, we had returned, and we felt in a
mood to rest. I on my lounge and Rover on his
rug beside me.

I did not think of Rover any more. I slept
well, and I dreamed a most wonderful dream.
I was wandering all alone in an enchanted
forest and I saw a most grotesque spectacle. I
came to the steep face of a hill, its curvatures
smoothly molded. Over it grew a tan colored
rushy growth, much resembling a wind-swept
field of over-ripe grass. This one species of
vegetation covered all the hillside, except two
places, from which something shone clear and
bright 'neath the overhanging brush. These
places were about half-way between the base of
the hill and its summit. They were separated
from each other by a broad ridge. Entranced,
I gazed upon their liquid splendor. Closer ob-
servation showed them to be convex, and each
resting on an almond-shaped pedestal of al-
baster. They were alike, semi-transparent, and
consisted of many wonderfully colored rings,
one within another, mottled and ever-changing,
while the round well like centers were black as
jet, and seemed continually swelling and shrink-
ing with irregular measure.

Awestruck, I stood at the base of the hill,
with my gaze fixed upon these two wonders.
What were they? I vainly asked myself. Who
built them? How was such perfect work, such
perfect polish, accomplished? And for what
purpose were they put there? They seemed
like mammoth jewels of some unknown and
precious kind. Each one was slightly sunken
in its respective territory amid the shaggy
yellow growth; and on the summit of the hill
above each of them stood a scroiled watch-
tower, sugar-loaf shaped, and overgrown with
dwarfed vegetation of the same kind that cov-
ered the hillside.

With the force of my will-power I withdrew
my gaze from the two colossal gems that so
strangely fascinated me, and near by I discov-
ered two dark caverns, side by side. These
were in the sharp terminus of the high ridge
running down from above, and they were divided
by a massive wall. My instinct told me they
were the portals to a habitation within. Their
thresholds and casements were not grass grown,
and the walls within were smooth, while their
formations were awkwardly tilting and unsys-
tematic.

The seemingly fixed base of the hill now sud-
denly rose up until it covered all but the two
sentinels aloft. The jewels were gone; in their
place was a marvelous pink coral cavern of
enormous proportions. Its roof was wonder-
fully frescoed as far back as the eye could
reach. The walls, floors and frescoes were all
of the same rich pink, and polished, excepting
the floor, which was honeycombed. I soon saw
that the coral floor was but a sliding platform.
As I gazed in wonder at the interior, this plat-
form slid toward me, between two walls of al-
baster monuments. The movement, I thought,
contained an invitation to me to mount and en-
ter. As the platform came still nearer me I
was surprised by seeing it coil upward at its
thin rounded edge. I stepped forward to en-
ter, but too late without some muscular exer-
tion. I earnestly desired to enter the cavern,
with a view to exploring far, far away where it
seemed to dip and branch off into the spacious
bowels of the earth. The coiling of the plat-
form only intensified the glory of the entire
scene. This effect in turn enhanced my desire.
I would not be baffled. My eagerness took the
place of amazement, and it grew more intense
with every second. The curling edge was al-
most beyond my reach. I made a dash and
snatched determinedly at it, feeling that I was
athletic enough to mount to it, could I but
catch hold of its retreating rim, though it was
risen to the level of my hat. Again I snatched
at it, but in vain. The thing of beauty evaded
me, though yet within easy reach. It then
waved over me majestically and re-entered the
cavern, which closed from above.

I was dumbfounded, and I opened my eyes
wider that nothing should escape my vision.
Then I saw my closed cave, hill, jewels, towers,
and all walk off on all fours in a spirit of indig-
nation. And I saw still more. Yes, I saw

Rover's body and tail attached to it all, as it
disappeared through the open doorway.

Poor Rover! I would not have insulted him
had I been awake. Nor would I have attempt-
ed to walk down his open throat because he had
the vulgarity to yawn in my face.
Santa Barbara.

The Lost Ring.

"Please tell me a story, auntie," said little
Ethel, one stormy afternoon.

"If this weather continues, my stock of
stories will soon be used up," said Ethel's
pretty young aunt, but she laid her book aside
just the same, and sat down by the little girl
and began: "When I was six years old, my
Uncle George brought me from Boston the
prettiest present you can imagine. It was in a
little white box. Can you guess what it was?"

"A muff," said Ethel, who had a new one.

"No; something very small."

"A little watch."

"Smaller than that."

But Ethel could not guess until auntie said:

"Something to wear on one's finger."

"Oh, I know—a ring."

"Yes, a lovely little ring, set with two
rubies and a pearl," said auntie. "I was so
pleased and so careful of it that they let me
wear it all the time, although it was an expen-
sive ring and did not fit very tightly."

"I had two playmates whom I loved very
dearly, a black and white kitten called Spot,
and a half-grown chicken named Peter."

"When Peter was little his mother used to
peck at him and drive him away from her, un-
til at length I took pity on him and cared for
him myself. He was very grateful, and would
follow me everywhere. I asked Sister Annie
to find a good name for him, and she said
'Peeper' would be a perfect fit, but I thought
'Peter' sounded better, and chose that instead.
He learned to know his name, and would come
whenever I called him. I felt sure he and
Spot understood everything I said, and I used
to talk to them as other girls do to dollies. I
did not like dollies. They couldn't run about
with me like my pets."

"One day after I had been playing hide-and-
seek among the haycocks with Spot and Peter
all the morning, I came in to dinner and found,
when I was washing my hands, that my dear
little ring was gone. How I cried! The
whole family helped me look for it, father and
mother and all, but it was of no use. The ring
was nowhere to be found."

"I felt so badly that I couldn't play at all that
afternoon. Peter seemed to sympathize with
me, I thought, but Spot was as frolicsome as
ever. I sat down on the doorstep in the after-
noon, almost heart-broken, and said: 'O
Peter! won't you and Spot help me find my
ring? You know I would do anything I could
to please you.'"

"Spot only climbed the wooden piazza posts
in reply, but Peter looked carefully about,
turning his head first one side and then the
other, and began to scratch among some loose
straws that were lying scattered about, and
what do you think! There was the ring be-
neath them."

"I ran to mother with it, so happy I could
hardly speak, and then I ran back to Peter and
hugged and kissed him more than he liked, I
am afraid. Afterward I made him a nice dish
of Indian-meal dough, with plenty of corn
sprinkled in it, like plums, as I could think of
nothing he would like better, and he seemed
very much pleased with it. I thought Spot
seemed a little jealous, but I wasn't quite sure."

"Thank you, auntie," said Ethel, and then
she ran off to play at being auntie herself, and
she acted the whole story very nicely, with the
old cat for Spot and the baby's rubber chicken
for Peter.

GOOD HEALTH.

MEDICAL HYPOCHONDRIACS.—The common
people are not the only ones who become hy-
pochondriacs. There are many practitioners
in good standing who give way to the same
phantasy. The *St. Louis Globe-Democrat*
says: So many people are hypochondriacs that
a physician expects to find one-third of his pa-
tients laboring under imaginary ills. It is easy
for people to exaggerate symptoms, and, by
giving themselves into the hands of quacks, be-
come confirmed victims of ill health. What is
not at all unusual is to find physicians who have
become thoroughly hyped. Many of them
with great reputations and very large practice
and capable of diagnosing any case become
cranks concerning their own health. They ex-
aggerate the slightest symptoms into dangerous
cases and believe they have chronic troubles
when they would know that, in a patient,
it would be but a slight indisposition. Most
physicians are not competent to treat them-
selves, and many of them are confirmed hy-
pochondriacs. Medical students begin early to
imagine themselves afflicted with the various
diseases they are studying. I remember I had
a room-mate who became thoroughly hyped
after entering the course. One day he caught
a cold, and that night suddenly informed me
he believed he was going to die, as he was
certain that he was afflicted with a new ma-
lignant fever which we had been studying that
day. I went immediately for one of the pro-
fessors, and he not being in, I had another come.
The second understood the case at once and
gave my friend some simple remedy, and later

the first came, and he, wishing to give the
young man a lesson, had me administer a liberal
dose of ipecac. This made him very sick, but
cured him of the malignant fever.

A MECHANICAL CURE FOR HICCOUGH.—Pro-
cure a glass of water and pour a little of it
down the patient's throat. While he is drink-
ing the water he should press a finger on the
orifice of each ear. By this method you open
the glottis, and in five seconds the thing is
done. Should you by any chance meet with an
obstinate case, you may rest assured that the
throat and ears were not closed at one and the
same time; either the water was swallowed be-
fore the ears were thoroughly stopped, or the
water was not sufficient to fill the throat.
Another precaution is to keep the chin well up.
This cure was obtained by the writer from an
old Indian medical officer who had experimented
for some years to discover a method of relieving
the terrible stage of hiccoughing in yellow
fever, and this cure was the outcome.—*Phar-
maceutical Journal*.

EFFECT OF THE IMAGINATION IN SICKNESS.—
An instance has just occurred in Brooklyn,
New York, to show the strong influence which
the imagination has over a weak and sensitive
mind. Jacob Hertline was bitten by a dog
which he supposed had hydrophobia. He died
of fright and nervousness, a medical examina-
tion proving there were no rabies in his case.

GUM-CHEWERS should take warning from the
fate of a Newton, Conn., girl, aged 16. A piece
of gum slipped down her throat, and, lodging
at the entrance to the stomach, caused a fatal
ulceration.

DOMESTIC ECONOMY

Washing Dishes.

I know a fair maid with laughing eyes,
Where a mingling of mischief and kindness lies.
Her form is supple and gracefully neat,
And she trips about upon restless feet;
She can sing divinely—converse with ease,
With a presence as pure as a summer breeze—
And endowed beyond bound of human wishes
She's bewitchingly sweet when washing dishes.

With a cheerful air and a smiling haste,
She ties a big apron around her waist;
And I notice, as slyly glancing up,
How she deftly handles each shining cup,
Placing them carefully side by side,
Where she views them all with dimpled pride;
Softly humming a lively measure,
Tapping the time with childish pleasure.

Then pursues her task demurely sedate,
Taking in turn each china plate;
And so busily passing to and fro,
Until they are laid just where they should go—
For though she embroiders with taste and skill,
Can faultlessly glide through the gay quadrille—
We admire her more when she grants our wishes
And allows us to watch her washing dishes.

—Good Housekeeping.

APPLE BUTTER.—To 40 gallons of good, sweet
cider, made from sound, ripe apples, use three
bushels of select apples. The cider should be
boiled down to one-third or a little less before
putting in the apples, which should be pared
clean, all specks, bruises, seeds and seed cav-
ities removed. They may be quartered or cut
into eighths if very large. If in a hurry, the
apples can be boiled in a little water before
putting into the cider. Stirring should com-
mence as soon as the fruit gets soft, and be
kept up carefully until done. At all times pre-
vent the flames of fire striking the kettle above
the line of contents. When boiled down to
ten gallons it will be done, and it will be an
article fit for a king. Put in earthen vessels,
and, when cold, dip clean white paper into
good whisky or brandy, and lay it over the
tops. In four months from making, if kept in
a garret (the best place), the jars can be in-
verted on a floor or shelf without running out;
will keep for years, and if made with the right
kind of apples, such as Rambo and Smokehouse,
or Bellflower, will become as smooth as cheese.

APPLE OMELET.—Pare, core and stew six
large, tart apples as for sauce; beat them very
smooth while hot, adding one tablespoon of
butter, six tablespoons of white sugar, nutmeg
to taste, and one teaspoon of rosewater; when
quite cold, add three eggs, beaten separately
very light, putting in the whites last; pour into
a deep pudding dish, previously warmed and
well buttered. Bake in a moderate oven until
it is delicately browned. Eat warm, not hot.

GELATINE PUDDING.—Make a custard with
the yolks of four eggs, one pint of milk and
sugar to taste; soak one-third of a box of
gelatine in a little cold water, then dissolve it
in three-fourths of a cup of hot water, add this
and the whites of four eggs well beaten to the
cold custard. Pour into a mold and serve cold.

BEAN SOUP.—Soak one quart of beans over
night. In the morning add one quart of cold
water, and set where it will keep warm one
hour; add two chopped onions and one pound of
salt pork. Cook until the beans are tender;
strain and season.

COTTAGE PUDDING.—One egg, one table-
spoonful of melted butter, one-half cup of milk,
one-half cup of sugar, one-half of a teaspoonful
of soda, one teaspoonful of cream of tartar,
flour enough to make a cake batter.



A. T. DEWEY.

W. B. EWER.

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SCIENTIFIC PRESS PATENT AGENCY.

DEWEY & CO., PATENT SOLICITORS.

A. T. DEWEY.

W. B. EWER.

G. H. STRONG

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SAN FRANCISCO:

Saturday, January 5, 1889.

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[NEW THIS ISSUE.]

Agricultural Implements—Hawley Bros. Hardware Co. Seeds—D. M. Ferry & Co. Detroit, Mich. Colusa Nursery—L. F. Moulton. Fruit Trees—M. Thomas, Los Angeles, Cal. Plants—Pilkington & Co., Port and, Or. Orange Trees—Bentley & Mills, Jacksonville, Fla. Seeds—J. A. Salzer, La Crosse, Wis. Carbon Bisulphide—J. H. Wheeler. Sorghum—Blymyer Iron Works Co., Cincinnati. Pumps—Cal. Fire Apparatus Mfg. Co. Commission Merchants—W. C. Price & Co. Dividend Notice—German Savings & Loan Society. Wire Fence—Sedgwick Bros., Richmond, Ind. Pomona Nurseries—Wm. Parry, Parry, N. J. Trees—J. R. Springer, Woodland, Cal. Trees—G. Tosetti, San Leandro, Cal. Electric Goods—J. C. Emory & Co., Cincinnati. Olive Trees—J. Cooke, East Berkeley, Cal. Poultry—S. W. Palin, Galt, Cal. Jersey Cattle—Henry Pierce. Each Seed Wanted—S. M. A.

See Advertising Columns.

The Week.

The old year closed triumphantly and the new begins hopefully. Our annual review of California's productive achievements, which we hope to have in readiness for our next issue, will show how great in actual industrial outcome the good year with the triple eight has been. The new year is one of the greatest promise. The sun is the brighter for having his looks combed and his face brushed by the passing moon, and will nobly do his part in inviting unsurpassed growth from the thoroughly moistened earth. Our gain in acreage of all crops, and of feed on all pastures, bide fair to make

wealth and comfort for our enlarged population, which the figure experts put at 1,400,000, with a chance that the census-takers of 1890 will enroll two names for every one recorded a decade ago. It is certainly a wonderful era for California, but no item of real growth and progress at all oversteps the great merit of our commonwealth—an inheritance which makes life worth living, and at the same time prolongs life for its enjoyment. God bless California!

The Solar Eclipse.

The total solar eclipse which occurred on the 1st of January has been looked forward to by astronomers for many months, and elaborate preparations were made by a number of parties and individual observers. Aside from the residents of this State who observed the phenomenon, a number of parties from the East, fully equipped with optical appliances and instruments, came to California and Nevada and selected stations on the line of totality. The results received do not thus far give very many details, but they are of a character to show that the observations made were generally successful and that clear weather prevailed. At this eclipse the main features observed by most of the parties were those connected with the corona, less attention being given to times of contact than has usually been the case, and drawings and photographs of the corona have been made in great numbers. It is probable that never before were so many photographs made of a similar astronomical event. One of the parties in the field alone made 164 negatives. Arrangements were made and carefully carried out whereby different periods of exposure of the plates were given from half a second up to 40 seconds. It is hoped by these means to obtain several good images giving exact representations of this strange phenomenon, as yet so little understood.

Even as seen through the naked eye, the corona is a wonderful sight; as seen through a telescope, it is a very complicated structure. The inner corona or photosphere is usually composed of bright filaments separated by darker bands, and some of these are sometimes seen almost black. The appearances are very irregular, and often it appears as if the inner corona is made up of flashes of light on a darker background. It was formerly doubtful if the corona was not the atmosphere of the sun or moon, but 20 years ago experience proved that the red prominences belonged to the sun, and that, though covered by the moon, they remained attached to the sun. The corona has also since been shown to be a solar appendage.

To one of the parties in the field, that of Cloverdale, several of the representatives of the RURAL PRESS were attached. An opportunity was given of examining and comparing about 40 drawings of the corona made by independent observers, who had not as yet compared notes. There is a striking similarity in all these drawings. With this party there were none who observed much color aside from that of a pale, cold, steely blue, the streamers fading away with lighter tinges from the edge.

It was noticed that the darkness during the period of totality was not so intense as was expected. It was sufficient, however, to have an effect on animals, the chickens retiring to roost and the cattle and horses showing signs of disquiet. In those parts of the country where there were Indians, these people attributed the darkness to some supernatural agency.

The fear that some had expressed that the month of January would prove a bad time to examine an eclipse in California was found to be wrong; scarcely any of the parties reported other than favorable weather. Even close to the coast, where fog might have been expected, there was none to interfere with observations.

The scientific results of this eclipse will not be known in full until the negatives made by the photographers are all developed and compared. It is hoped on this occasion results have been accomplished which will serve as a basis for more accurate observations in the future. This is particularly the case in connection with photography. More negatives were taken of this than in any previous eclipse, and as their time of exposure has been recorded, on another occasion of a similar kind the work can be carried on more accurately by reason of the knowledge of the exact time of exposure.

A number of excursion trains were run from

this city to points on the line of totality, and advantage was taken of this by large numbers of people to visit favorable points for observation. Those along the lines of partial obscuration were also awake to the event, and the hill-tops around the bay of San Francisco were seized upon as vantage-ground by those who were not able to visit the belt of the totality. The phenomenon was quite as impressive as popular descriptions promised, and all observers were awed by its majesty as well as satisfied with human knowledge which could predict with such accuracy an event of such remote occurrence.

Foreign Varieties of the Olive.

We give on our first page this week a collection of olive twigs representing a number of foreign varieties which are most talked about in this State. The figures will be examined with much interest by our olive-growing readers, because they represent the foreign varieties as actually fruited in this State, and are not reproduced from European engravings. Much credit is due to B. M. Lelong, Secretary of the State Board of Horticulture, for the energy and interest he is showing in securing and publishing information on the olive, a fruit which is now exciting such wide interest in this State. Our engravings are reproduced from Mr. Lelong's latest pamphlet, which is now ready for distribution and can be had free by addressing the office of the State Board of Horticulture, 220 Sutter St., S. F.

This pamphlet contains other varieties than those we show this week, which we may present later, also figures representing methods of budding and grafting, operations which are of especial interest now that many will wish to change their varieties to others which they may think more desirable. The descriptions of varieties given by Mr. Lelong are based upon a recent authoritative French publication, and full lists of synonyms are also given. In the notes which we prepare for the general reader, we take only the most striking features, with allusion to the growers of the different sorts in this State.

Probably the greatest interest will pertain to the contrast between the Redding Picholine, now so widely distributed in this State, and the Picholine of the French. It is clear that the variety we are growing is neither the Picholine nor of the Picholine type. What it really is, is a mystery, but it may prove of value, and if not so in itself it is undoubtedly a good stock for working on other sorts. The value of our Picholine for oil will probably be fully demonstrated this winter.

A famous variety is the Lucques, which is now fruiting on the grounds of C. A. Wetmore at Livermore. It is grown in large quantities in France in regions where the growth of olives for the table forms a special industry. It is usually given good, deep soil, and though it does not seem to produce hearty, this is compensated for by its beauty and high quality for pickling.

The Manzanillo is a large fruit, of irregular, globular shape, as shown. The tree is now fruiting at the places of Juan Gallegos, Mission San Jose; Geo. E. Ladd, Atwater; Dr. J. M. Stewart, Santa Cruz, and on the grounds of the California Nursery Company at Niles; also at San Jose and Santa Barbara. This variety is widely distributed, as hundreds of trees have been sent out in small lots by the State University.

The Pendulina is a handsome tree and good bearer, as has been shown by its growth at Livermore, Santa Cruz, San Jose, Niles and Mission San Jose. It is said to be good both for oil and for pickling.

The Pendoulier is the variety which has been mentioned in the RURAL as fruiting on the farm of Albert Montpellier at Vacaville, and as ripening as early as the first of October in that early part of the State. On Mr. Rixford's place in Sonoma valley it ripens in November. At Atwater, Merced county, it ripens about the same time as at Vacaville. It has an excellent foreign record, the fruit being large, as shown, and the tree of a vigorous growth and beautiful weeping habit.

The Verdale in France is a dwarf tree and bears a table olive. It is very popular in Languedoc. It ripens very early. The fruit seems especially desirable for pickling green. It is rather sensitive to cold. The Verdale is fruiting in several parts of this State. At Saratoga

it is bearing on very steep sidehills, so steep that they can hardly be cultivated. The trees bore a full crop this year.

The last variety we show this week is the Columella, which Mr. Lelong considers a most valuable acquisition because of its productiveness and superior quality of fruit; the weight of the fruit brings the branches to the ground. The fruit is of a clear yellow color before maturity and makes a very handsome pickle. It is now growing in Livermore, San Jose, Niles and Saratoga.

The larger part of the olive varieties portrayed by Mr. Lelong were obtained from Mr. Rock's importations of trees, of which mention has been made from time to time in the RURAL.

QUERIES AND REPLIES.

Cow With Jaw-Swelling.

EDITORS PRESS:—Will some kind reader of the RURAL PRESS please state whether he has had any experience where a cow has a large lump or swelling on the under jaw—on the jaw-bone, and what it is? Also the cause, and what is best to do for it? I have a Jersey cow on my ranch so affected, and as she is a pet, am very much worried about it. She does not seem to mind it, nor does it seem to be sore, but it is growing larger. I will be very grateful to any one who will kindly answer my questions in regard to this matter.—READER, San Jacinto.

EDITORS PRESS:—It is a very difficult matter to diagnose the above disease positively without examination, as there are so many diseases, the symptoms of which are swellings on different parts of the body. It is very probable that the disease may be actinomycosis; this disorder is caused by a fungus of the genus actinomyces, which is found in man, ox and pig. It is very probable that this disease is communicable by contagion and infection through any pores or natural orifices of the body. Spontaneous cure as a result of abscess is occasionally seen in the lower animals, but, as a rule, surgical extirpation of the tumor is absolutely necessary. In man, actinomycosis tends to deep abscesses and extensive necrosis of tissue with formation of fistula, and it frequently proves fatal through pyæmia resulting.

There is also another swelling under the jaw, rather common in cattle, especially in some parts of the country, called wens or clyers, this disease especially affecting those parts which have lymphatic glands situated in them. They increase in size slowly, as a rule, but may manifest a first acute stage, which changes to a phase of less activity. The tumor may also undergo a classification and thus remain in statu quo for a long time.

The treatment I find best is the application of acid-sulphuric—with friction to the bases of the tumors by means of a suitably shaped piece of brick, stone, or piece of wood.

I should certainly advise the case to be examined by a thoroughly qualified veterinary surgeon, as if it be a case of actinomycosis it is a serious matter for man as well as beast.—A. E. BUZARD, M. R. C. V. S. L., No. 11 Seventh St., S. F.

Barn Plans.

EDITORS PRESS:—Can you give us now and then a plan for a barn suitable to the ordinary needs of a suburban place, where a cow and calf and two horses are kept, with suitable arrangements for convenient feeding of the same; also with storing-place for hay and feed enough to keep them through the winter, and harness-room, grain-bins and carriage and sleeping room for a man included in the plans, so as to make the whole a neat, substantial, tasty building suitable for a gentleman's place near town. So many new-comers are needing just such plans to work on in building their new California homes that some suggestions in the RURAL upon this subject will fill a long-felt want of many of your subscribers.—L. U. MCCANN.

[This subject is a good one. Will our readers who have built to their satisfaction favor us with photographs, sketches of ground plans, etc.? Now that amateur photographers are almost as numerous as tramps, probably one of them could be easily persuaded to practice on the barn and send us the result.]

Holes in the Bark.

EDITORS PRESS:—I notice a few of my largest apricot trees have a quantity of round holes picked or bored in the bark, but cannot find any insect to work at them. Holes are about one-eighth inch in diameter, and are through the outer bark. Many have gum running out. None of my neighbors know what it is. One thought it was done by wood-pickers. Please answer through the RURAL PRESS what you think is the cause, or ask subscribers to state their views, and oblige.—A. VOLLMER, Los Gatos.

We presume the holes are the work of the species of woodpecker commonly called the sap-sucker, about which there was quite a controversy in the RURAL last winter.

Sowing Buckwheat.

EDITORS PRESS:—Will you please inform me through the RURAL PRESS when is the best time to sow buckwheat?—L. MOORE, Walnut Creek.

[We would like to hear experience on this point, how early can it be profitably sown in any part of the State, and for the special benefit of our querist who will write of it in Contra Costa county?—EDS.]

De Lesseps and His Canal.

De Lesseps and his canal enterprise has for some time been recognized as one of the most picturesque figures in the world. No one thing has more largely occupied the world's attention for the past year than this great engineering effort to connect the two oceans at Panama. In a commercial point of view, it is fully equal in importance to the Suez canal. In an engineering light the work of connecting the Mediterranean with the Red sea bears no comparison to that required on the Isthmus of Panama. The Suez canal is a mere ditch through a sand plain, which was first conceived and completed some 2000 years ago. De Lesseps merely cleaned it out and created more substantial entrepôts at either end. There were no engineering difficulties in the way which might not have been overcome by the merest tyro at such work.

Why even that canal should have cost \$100,000,000 is difficult to explain, especially when nearly all the laborers were furnished by the enforced labor of Egyptian fellahs. Equally difficult is it to explain, especially in view of the much more magnificent engineering enterprises which have been carried to successful results in other parts of the world, why De Lesseps should have won such applause for his Suez work. The first American overland railroad, the canal and reclaiming system of Holland, the Erie canal through New York and other similar enterprises, exhibited much greater engineering skill than was called into recognition on the Isthmus of Suez. The first construction of that canal in the dim light of early history, when the world was young and science and engineering skill scarcely known, was a work of far greater magnitude than its modern renewal.

The Panama canal, neither in its conception nor in the engineering skill in its initiation, has been the work of De Lesseps. The proposition for its construction has been before the world for over 200 years, and its engineering possibility shown by actual surveys. De Lesseps has never been on the isthmus but once, and then only as the head of a junketing party. No special examinations were made, and no calculations as to the possibility, cost, or manner of the work.

De Lesseps has been simply a promoter of the scheme, without taking the trouble to give the work any serious consideration. He seems to have been peculiarly unfortunate in selecting men to let his contracts to superintend the work and to select and purchase machinery. Millions of dollars have been thrown away on machinery which, when placed on the ground at great cost, proved to be utterly worthless. Contracts have been so carelessly let as to give fortunes to the lucky contractors and pile up useless expenses against the enterprise. Stock and bonds have been sold at large discount and interest on the same paid from date, contrary to usual practice in such investments.

There has already been expended more than twice the sum which investors were assured would complete the work, and at least one half more will still be required to finish the same.

Money has been obtained under the most fraudulent assurances and expended in the most profligate manner. A large portion of this money has been drawn from people of small means who can ill afford to lose it. As the work took on a sort of semi-national character, these people, in their present calamity, naturally look to their Government to see that it is completed, so that their investments need not be an entire loss. And right here stands a lion in the way—the Monroe Doctrine—under which no European nation can be allowed to acquire any local national rights on this continent. The French Government would gladly step in and finish the work; their people demand it; but they dare not do so. They remember Maximilian and his fate. It would not do for the Government to take charge of and complete the work without establishing a government protectorate over it. That cannot be permitted by the United States.

De Lesseps' last remaining hope was taken away when Senator Edmunds introduced his

late resolution into the U. S. Senate stating that this Government would look with serious disapproval upon any European government which should undertake either the control or construction of any ship canal across the Isthmus of Darien.

It would seem under existing circumstances that the Government of Colombia should apply to the United States for aid to complete the canal. Either some such plan must be adopted

which some of the treeless plains and valleys of California can be made to yield large supplies of excellent fuel.

Seattle, W. T.

A Glance at the Metropolis of the Puget Sound Country.

Seattle occupies a site which was selected as a favorable point for a city as early as 1852.



RESIDENCE OF MR. CARSON, EUREKA, CAL.

or the canal company must raise the remaining funds required in its civil capacity. Neither the French nor any other European Government will be allowed to step in and take up the work.

Bitter denunciations are heard among the French investors in regard to what they consider the mismanagement of the affairs of the

Elliott bay, on which the city is situated, was visited by Capt. Chas. Wilkes in his famous exploring expedition in 1841, and was named by him in honor of one of the lieutenants of the company. Owing to depredations of Indians the city was slow in growth for many years. In 1860 it was exceeded in population and business by at least three other cities on the sound,



PARTIAL VIEW OF SEATTLE, W. T.

company. The most of those who have discussed the matter feel kindly disposed toward De Lesseps, commiserate the misfortune which has overtaken him, and still have hope that his fruitful brain will find some satisfactory way out of his present dilemma. The canal will most undoubtedly be completed; but in all probability the money already invested will be mostly lost. Whoever puts money into the scheme at this stage of the enterprise must be protected, whatever may befall previous investors.

A QUEER kind of fuel is now used by some of the people of Wyoming Territory. It is nothing more nor less than sunflowers. An acre of sunflowers will, it is asserted, furnish fuel for one stove for a whole year. When dry the stalks are as hard as maple wood and make an excellent fire, and the seed heads, with the seed inside, are said to burn better than the best hard coal. As sunflowers will grow almost anywhere, it is believed that there is a way by

bay. Solid bank buildings, fine brick streets, broad sidewalks and a rushing crowd of people will surprise him. For a distance of four or five blocks along the west side of the principal street there is an activity and a city-like aspect surpassed by few streets in San Francisco.

The retail business is massed in comparatively limited level space, and the effect is to make a very active and attractive center. On the west side of the street, for a distance of about 1000 feet, there is a solid frontage of houses which would be creditable anywhere. These are uniformly three stories high, with deep basements and of the most modern construction. The materials are stone, iron, brick, pressed brick and plate glass. Inside and outside the business blocks of Seattle compare favorably with those of Portland, San Francisco and Chicago.

Redwood Houses.

Nearly all of the wooden houses on this coast are made of California redwood, but it has only been within the past few years that it has been used for interior finish and decoration. Now, however, that painted wood is unfashionable for interiors, the native woods are being utilized, and the redwood largely. The roots and stumps have a curly grain, which is very beautiful when polished. We give an illustration on this page of the handsome residence of Mr. Carson, of the firm of Dolbeer & Carson, in Eureka, Humboldt county, built mainly of redwood.

Its exterior appearance is grand and attractive, as may be gleaned from the illustration. The interior is elegant in its appointments and finish. All the different forms of redwood—straight-grained, curly and variegated—besides foreign hardwoods, are used in the interior finish and decorating. Some idea of its elegance may be formed when it is known that all the lumber was finished and millwork done at Mr. Carson's mill, and yet the cost was \$30,000. The stable in the rear and standing at one side is of the same architecture as the residence. Messrs. Newsome Bros. of San Francisco were the architects, and it may be well called a masterpiece of the builders' art. One of the most attractive features is the use of different woods, hard and soft, natural and stained, in the different suites of apartments, giving a rich, elegant and pleasing variety, and making this palatial residence one of the finest that can be seen anywhere, surrounded as it is by the spacious and well-appointed grounds, and occupying a commanding site.

THE jute mills at Oakland are running more smoothly of late than ever before in their history. In former seasons it has been found necessary to close down very frequently in order to await the arrival of new supplies of raw material from India. In the past ten months supplies have been coming in very freely, and in such a way as to obviate the necessity of stopping the machinery, at frequent intervals, as has been the case during the greater part of the history of this important industry in California. By steady running, the mills

return a better profit to their owners and keep the large number of employees steadily at work. There are now about 300 white persons of various ages at work in the mills and about 90 Chinamen. The new machinery for making the coarser grades of jute material, including matting and hop cloth, are found to work admirably. There is believed to be a good outlook for the industry here, now that it is possible to secure supplies as they are required by the manufacturers.

WE notice some of the newspapers are discussing who will be called to the Cabinet to fill the position of Secretary of the "Department of Agriculture." This is premature; no such department exists. The bill creating such an official is not likely to be taken off the hook during the present short term of Congress, we are sorry to say.

A CREAMERY is to be established at Ellensburg, Washington Territory.

AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

TAMM'S WILD FRUITS.—Gridley Herald, Dec. 27: Mrs. Jennie Jarvis has a number of wild fruit plants for sale, embracing wild red cherry, mountain gooseberry, red and black currants and black raspberry. These plants come from Truckee Canyon and the fruit they bear is of the best quality. They will do well in this neighborhood.

THEY PAY.—Matthew Mullen, four years ago, planted 30 orange trees on a town lot 80x110. He set them out more for ornament than for profit. This week, however, he has discovered that there is some profit in raising oranges. Taxes will become delinquent next Monday. Times have been very quiet this winter and money scarce. Monday, Mr. Mullen thought he would sell the oranges on his trees and thereby avoid drawing on his bank account so heavily for tax-money. He did so. They netted him \$185, about \$8 more than his taxes on a ranch of 160 acres. And now the "young man" says he'll have the biggest orange grove in Gridley township next year.

Contra Costa.

IN PRAISE OF BERMUDA GRASS.—Antioch Ledger, Dec. 22: In the grounds adjoining Mr. Holliday's handsome cottage is a plantation of Bermuda grass, which demonstrates the value of this grass for lawn purposes in this locality. With little care and without any elaborate preparation of the ground, Mr. Holliday has here one of the handsomest bits of lawn that we have ever seen. The grass has a graceful, feathery appearance that renders it very attractive, and the hot sun of summer appears to affect it not at all.

OATS.—Martinez Item, Dec. 27: A bunch of tame oats reached this office yesterday from the ranch of N. R. Harris, near Jersey Landing, who is one of the successful farmers of that reclaimed district. The oats are fully headed out and developed—something by no means usual at this time of the year—and nearly five feet in height.

Fresno.

KING'S RIVER ORANGES.—Fresno Expositor, Dec. 26: Fulton G. Berry and a party of friends took a drive yesterday to the foothills. They visited the orange grove of Wm. Hazelton on King's river above Centerville, found the trees bearing abundantly, and brought back with them some of the finest clusters of oranges and lemons we have ever seen in Fresno. Mr. Berry also brought in a sack of oranges from a tree in his grove, in the same locality. A careful estimate of the oranges on the tree from which the sackful was plucked placed them at over 5000. The Expositor returns thanks to J. H. Lewis of Upper King's River for a box of fine oranges grown on his place. They are like all the oranges from that favored region, bright, clean, thin-skinned and sweet. The orange is bound to be a prominent product of the Upper King's River country.

THE 'POSSUMS.—P. P. Payne has sold his 'possums (lately imported from Missouri) to Jesse Irvine. Two and a-half acres have been inclosed, by a high fence made of wire, on Mr. Irvine's place. Within this inclosure are several small saplings, such as 'possums delight to climb. There are several hollow logs in the lot. During the daytime not a 'possum can be seen in the inclosure. As soon as it becomes nicely dark they come out of their retreat and frolic about the yard. The young have grown amazingly since coming to California. It was predicted by many Southern gentlemen when Mr. Payne first introduced the 'possum here that it wouldn't thrive, but this opinion has been thoroughly exploded. Mr. Irvine is also convinced that Brown Leghorn chicks and 'possums won't thrive on the same ranch!

Lake.

PERCHERON IMMIGRANTS.—Lakeport Avalanche: Capt. W. B. Collier has arrived with 31 choice Percheron horses, some of which were imported and some purchased from M. W. Dunham, while others of the younger stock were foaled on Mr. Collier's farm at Bridgeton, 14 miles west of St. Louis. The stock brought to Lake county is of the two best Percheron strains ever brought to America. Mr. Collier has done a great thing for this portion of the State by bringing this stock here, and we wish him success in his undertaking. The stock came through by rail without sustaining injury and will be quartered at the fair grounds until Mr. Collier can arrange suitable quarters at his ranch above town on the lake shore.

Los Angeles.

ONIONS.—Santa Ana Blade: Mr. Murdock, who has ten acres of peat land near Bolsa, has actually sold from one measured acre this year \$450 worth of onions, and a second crop on the same ground is well advanced. It was his first experience in onion raising, but he says if he had planted his crop one month earlier, to secure the best advantages of the Eastern market, he could have made the price of his entire ranch on this one year's crop. How is this for high, you doubting Easterners?

Mendocino.

HORTICULTURISTS ORGANIZED.—Dispatch Democrat: The adjourned meeting of the Mendocino Horticultural Society was held in Ukiah Saturday, Dec. 22, 1888, Robt. Mc-

Garvey presiding. The society then effected a permanent organization with 16 members, by the adoption of constitution and by-laws, and the election of the following officers: R. McGarvey, Pres.; E. W. King, V. P.; H. Price, Sec'y; L. W. Babcock, J. M. Luce, J. S. Hogehead, Directors. The following were appointed by the president to make out a petition to the Board of Supervisors asking them to appoint a Commission on Fruit Pests: E. W. King, L. W. Babcock and T. J. Fine. Adjourned to meet the last Saturday in January, at 1 o'clock P. M.

Merced.

FINE ORANGE CLUSTER.—Merced, Dec. 25: The Board of Trade here will to-morrow forward to the State Board of Trade at San Francisco a bunch containing 36 large yellow oranges. This fine cluster was raised in the garden of Dr. G. T. Lee, in this town. The tree was transplanted last spring, and produced this season about 500 large oranges of delicious flavor.

Modoc.

PESTERED BY PANTHERS.—Alturas Independent: The sheep-owners who are grazing their flocks on the west side of Goose lake are experiencing considerable trouble from California lions. One night lately one of the vaqueros entered the fold of Mr. Thompson, seized a large ram, carried it off several hundred yards, killed it, and then walked off and left the carcass. Quite a number of sheep have been killed by these animals.

Placer.

TO EXHIBIT IN S. F.—Newcastle News, Dec. 26: A meeting of the Directors of the Board of Trade of Placer County was held at the reading-room in Newcastle on Saturday relative to making some sort of an appropriate exhibit of Placer's products, either in Chicago, in "California on Wheels," in Los Angeles or in San Francisco, and after a full consideration of various propositions, it was unanimously decided to secure an eligible location on either Market or Kearny street, in San Francisco, and there place our exhibit. Vice-President Parker and Director Robert Jones were named a committee to proceed to San Francisco and engage suitable quarters. Those gentlemen are now in that city in fulfillment of their mission. A committee consisting of George D. Kellogg, A. Moger, W. J. Wilson, J. Reith, Jr., H. E. Parker, J. F. Madden and Bell M. Berry was chosen to collect such citrus fruits, etc., as may be deemed necessary for a creditable exhibit. It is proposed to purchase from the growers about 3000 oranges, at the market prices, which will form the bulk of the exhibit. There will also be a display of apples, persimmons, pomegranates, almonds, walnuts, cereals, etc., in fact a general display of the products of the county.

San Benito.

TRES PINOS NOTES.—EDITORS PRESS: The indications for good crops the coming season were never better in this section. The last rain commenced the night of the 12th, several days after our neighbors farther north were favored in like manner, and has come gently; warm rains that the ground has readily absorbed and put it in the right condition for plowing. In the Tres Pinos valley the grain-fields of last year are green with the volunteer crop nicely started, and much of the cultivated lands will not be reseeded. Mr. Zenas Churchill has planted this month eight acres for a nursery within half a mile of Tres Pinos depot, and is expecting to put out a large portion of his ranch into orchard next year, and be able to supply trees to those in the valley who, like himself, have faith that San Benito county lands can grow as good fruit trees as other parts of the State. Three years ago last March, Mr. Churchill put out 300 trees to test the capabilities of his land for growing orchard. He finished planting the 17th of March. It proved to be a dry season, and they did not have a drop of water after planting till late in the fall; were kept alive by cultivating, and have not had the attention experienced orchardists give their fruit trees, for the ranch has been rented for the last three years to a man who is a good farmer, but makes no pretension to growing fruit trees successfully. These trees have made a fine, healthy growth, and fairly demonstrated the fact that it will pay to plant orchards in this valley; and it may yet rival the famous Santa Clara county orchards.—M. A. S.

San Bernardino.

RIVERSIDE ITEMS.—Press, Dec. 22: Since last Saturday Frost & Burgess have sold 20,000 three-year-old orange trees for setting out, and think they see where they can place 40,000 more right off. The amount sold will set out about 300 acres. Griffin & Skelly estimate the crop of oranges now beginning to be harvested in this settlement at 900 carloads, of 300 boxes each. We think this is a liberal estimate, and, while deferring to their superior judgment, would rather put it at 800 carloads. D. H. Burnham has put up a large lot of Smyrna or White Ischia figs this season. He is about the only fig-grower around here who makes a business of curing this ticklish fruit for market. He is very successful, and his figs are delicious.

San Joaquin.

RYE HEADING OUT.—Stockton Independent, Dec. 27: N. H. Locke of Lockeford yesterday exhibited in this city samples of a volunteer crop of rye now growing on Noah Clapp's farm, near Lathrop, which would surprise people who did not know of the wonderful fertility of San Joaquin county lands. The crop now stands

15 inches high on a tract of 200 acres and has commenced heading out. The rye started after the light rain in September last, and has been growing safely ever since.

San Luis Obispo.

TREES IN VARIETY.—Cholame Cor. Tribune: Mr. Harris, a non-resident, who has a timber-culture claim in the Palo Prieta country, is quite enthusiastic about the future of this locality. He is having sown catalpa, locust, and two kinds of cypress seeds. He is also setting out quite a number of Picholine olive trees, which are almost certain to do well, as Tilman Fowler, of the Paloma Pass, has a tree in full bearing which produces olives of the finest quality. Mr. Fowler also has orange and fig trees in bearing, which produce remarkably fine fruit.

PROMISING WHEAT.—Paso Robles Cor. Tribune, Dec. 28: O. Howard, living four miles northwest of town, near Oak Flat, Saturday brought to my office a stool of green wheat standing nearly four feet high, with full-grown heads as long as our hands. The grain had grown as volunteer in Mr. Howard's field since the summer grain was harvested. He also brought some watermelons and nearly ripe tomatoes that he picked off growing vines the morning he brought the vegetables to town.

Santa Clara.

GONE GOPHERS.—Los Gatos Mail, Dec. 28: L. I. Beach informs us that he has killed nearly all the gophers on his ranch of 30 acres (formerly a portion of the Boudish ranch, on the Saratoga road) by using carbon bisulphide on cotton wadding, sticking the cotton in the holes and covering it over with dirt. He says it is essential to find every hole on the tract and fill them up. He used two gallons of carbon bisulphide and about \$1 worth of cotton, the total cost being about \$4.

Shasta.

RASPBERRIES.—Redding Free Press: Tuesday, the 18th of December, we were accorded the rare privilege of tasting several of a magnificent cluster of ripe raspberries. The rich red fruit nestled naturally among the tints of autumn's flame-splashed leaves, and, strange to say, retained the delights of the first flavors of the berry season. The cluster came from the gardens of E. A. Reid.

Solano.

EDITORS PRESS:—The mercury stands at 42° this morning, but no frost. The sun is shining bright, with a prospect of clear weather. On Christmas night we had three inches of rain. The various rain-gauges give from 1½ to 17 inches for the season. In the hills, three miles west of Vacaville, about one-sixth more rain falls than in Vacaville. Our roads (one of the weak beauties of Solano county) are almost impassable on account of mud. The McMann Bridge Co. of S. F. has just finished a 60-foot bridge across Alamo creek, and have a contract for another in Pleasant valley. Several new brick buildings are soon to be erected in Vacaville, the contracts being let and men at work clearing up the ground. We have had very little frost this season, volunteer potatoes are up, and a foot high. Grass is gaining very fast. Everything so far points to a favorable season, and consequently, everybody is in good humor.—G., Vacaville, Dec. 30th.

Stanislaus.

IRRIGATION BONDS.—Turlock Pioneer, Dec. 26: Last Tuesday the directors of the Turlock Irrigation District met, E. B. Clark presiding and a full board present. L. M. Hickman appearing, the matter of the sale of bonds was taken up, and Mr. Hickman stated that he had sold bonds to the amount of \$500,000 at 90 per cent of their face value, and upon the following conditions: \$10,000 cash, \$20,000 on February 1, 1889, \$20,000 on March 1st, \$50,000 on April 1st, and the balance as called for by the directors, upon their giving 20 days notice and in sums not exceeding \$50,000 per month. Upon motion duly made and seconded, it was by said board unanimously decided to accept the bid. C. F. Linder was appointed a committee of one to supervise the work of the Engineering Corps, with instructions to have the permanent survey from the dam immediately commenced.

Trinity.

ABOUT HAY FORK.—Cor. Record Union: I have seen as fine winter apples here as any that come from Oregon. Walter James took a load to Red Bluff a week ago, and sold them readily at three cents a pound. If they had been put up in boxes, instead of being carried loose in the wagon, and had been picked from the trees instead of shaken off, they would have brought at least four cents per pound. This county produces potatoes and alfalfa to perfection, and is fairly good for wheat and other cereals. The foothills are well adapted for the successful raising of fruits—particularly apples and pears, and, I think, many of the more hardy varieties of the grape would do well here. W. W. Shock showed me a few vines of Flume Tokay, on my previous visit, that would be a credit to any locality. This county is coming to the front rapidly as a stock county, and the man is fortunate that gets a title to a good range before it is too late.

Tulare.

PORTERVILLE PRAISED FOR RIVERSIDE.—Press, Dec. 22: Some of our nurserymen are sending orange trees to Porterville, a promising young candidate for citrus honors. Among the Riverside people who have landed interests up there are Ad. S. Alkire, Philip Frankenhimer,

Felix Lightner, Geo. T. Frost, Frank Morrison and a brother of C. S. Burgess. Porterville is about 250 miles northerly from here, on the broad bench below the foothills of the Sierra Nevada, almost under the shadow of Mount Whitney, a peak 15,000 feet high. Thirty five hundred inches of mountain water supplies it; thirty soil, and it is said to be as well adapted to orange culture as any place in this southern section. It lies where it meets the tide of home-seekers both from the north and south.

POPULAR POINTERS.—Cor. Delta, Dec. 27: A larger area of crops is being put into the ground at the present time than ever before. A few first-class windmills have been placed. The stock business holds out well. Horses and cattle are on the increase. Hogs are more scarce. Draft horses are receiving their share of attention, but the breeding of fast horses seems to receive more. The best breeds of cattle and swine have received their share of interest. The fruit business is on the increase; more interest has been awakened within the last year, and all conclude that there is more profit in fruit than in wheat. There was a large amount of the cactus hedge plant set in this neighborhood. Much of it is dead, and what is alive is very scattering. The Seneca-wheat man has also been around, and succeeded in making several contracts in this vicinity. Our industries are becoming more diversified, consequently more independent. The year has not been as prosperous as some, but our people have not felt the anxiety that they did heretofore, when their labor was expended on one kind of product and that proved a failure. The outlook in every respect is bright.

BEARS, GRAIN AND FRUIT.—Three Rivers Cor. Delta: Farmers and stockmen are very busy hunting the bear and plowing and sowing grain. Grain is up already and looks well. It is earlier than usual this season and we expect a bountiful crop. Bears are fat now, and the oil is relished much on hotcakes. Frank and E. nest Britton killed two bears a few days ago. Wes Warren killed one bear, and it is reported that John Swanson and Walter Serby killed five a short time ago, and that Din Busby has killed six since he arrived from Kansas. Lu Davis and Abe Wilkinson killed three and W. F. Dean and D. N. Cioffler have killed three or four bears lately. Jack Bahlwell and M. L. Burton killed one, and it is said that M. L. came near having his shirt torn off, for there was only the shirt between him and the bear. Sam Hilted is hauling apples to Visalia. Apples are plentiful this season. Some of the Japanese persimmon trees are well loaded with persimmons, which have a good flavor.

Yolo.

EDITORS PRESS:—We are having just the best old-fashioned winter you ever saw, up here in the Sacramento valley—rain, a plenty, and an even and mild temperature that is just delightful. The fields are green, and the wild oats and foxtail tall enough to furnish good pasture, and if we have no more frosts, the season of feeding stock will soon end. We have had but two slight frosts as yet, and the only thing that bothers the grain rancher is how to get in his "winter-sown" grain between showers. Tree planting bids fair to exceed any previous year and is limited only by the supply, the varieties most in demand being exhausted. The people of Woodland are seriously considering the cannery problem once more and I think this time it will be a success. With many well wishes for the PRESS, a Merry Christmas and Happy New Year.—J. R. SPRINGER, Woodland, Dec. 24, 1888.

COUNTY RAISIN CROP.—Mail, Dec. 29: Various estimates of the raisin crop of Yolo county for 1888 have been made, ranging all the way from 50,000 to 100,000 boxes. A short time ago the Fruit-Grower published a statement that Yolo and Solano counties combined would produce for the year 1888 something over 85,000 boxes. From reliable statements made by the producers, we are enabled to give the true amount of the output in boxes for the season past—Yolo county alone has raised 129,650 boxes of raisins.

NEVADA.

CATTLE ON THE MEADOWS.—Reno Gazette and Stockman, Dec. 27: The following is a correct list of the cattle on the meadows feeding, and to whom they belong: C. Derby has 500, George Humphrey 350, J. Stang 220, Matt Healy 200, Ayers & Poor 375, Potry, Heilbron & Co. 400, Horn & Chapman 325, Joseph Frey 520, C. Alexander 200, E. P. Sessions 170, Major Wall 220, George Mapes 1400, Louis Dean 900, Ward Bros. 400, Gravson, Owen & Co. 650, Hayes, Carrick & Co. 950, John Sparks 500, George Peckham 50, G. C. Hunt 231, E. Crain 200, W. H. Callaghan 150, and other small lots estimated at 150, making a grand total of over 9000.

STOCK SHIPMENTS.—Last Monday D. N. Wheeler shipped nine cars of beef cattle to Coley, Heilbron & Co., S. F. John Slaven shipped to Grayson, Owen & Co., Oakland, five cars of the Sparks & Tinnin cattle which have been fed on Truckee meadows. Among this lot are several thoroughbreds, half and three-quarter bred Herefords, which are sent to the shambles as a sort of test to see how they will weigh. Two carloads of mutton sheep were also shipped to the S. F. market by D. C. Campbell. Besides the above, nine cars of beef cattle, which arrived from the East Monday morning, were re-shipped Monday night.

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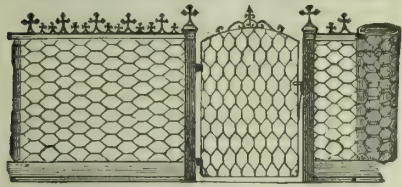
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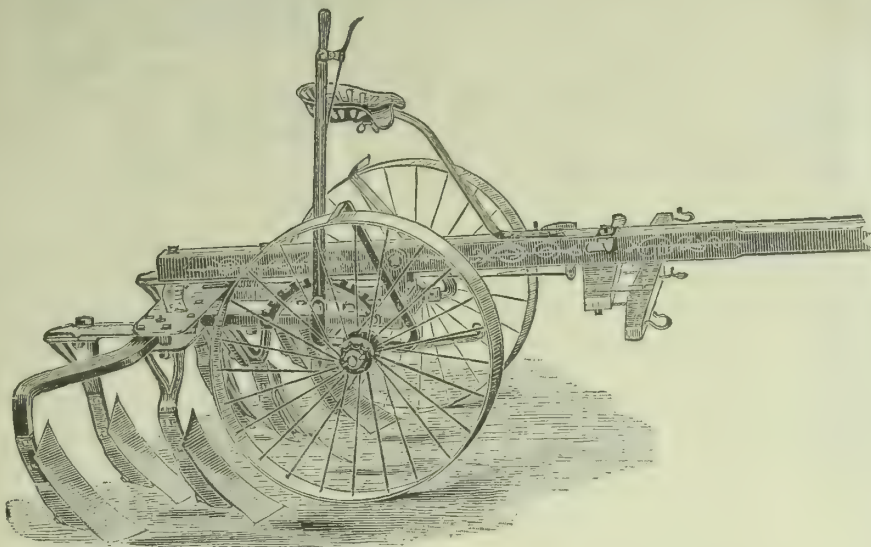
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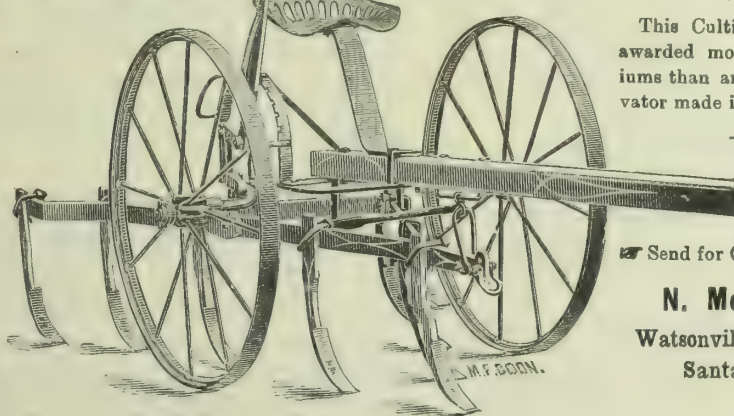
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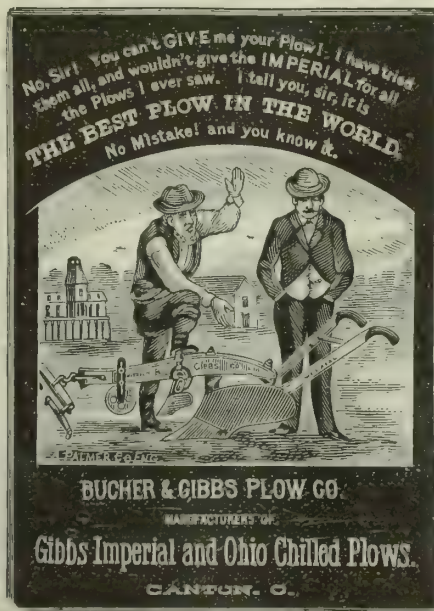
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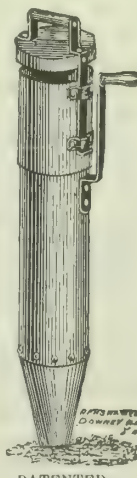
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THE FIELD.

Important Rain and Crop Statistics.

[Written for the RURAL PRESS by J. R. F.]

In the RURAL PRESS of Dec. 22d there was published a rain table by seasons for Sacramento, running back to the year 1849, which is not only an interesting, but an instructive, study to the farmer as well as to the scientist. The table taken in connection with the records of passing events kept since 1809, by Jesuit missionaries, confirms the belief that there are weather cycles so far as regards certain periods of light rainfall. Aside from this, taking the wheat acreage and crop outturn for a decade past, and comparing them with the rainfall by months, and it is confirmatory of a generally accepted theory—that the spring rains make the crop.

Going back to the earliest records, and it is discovered that the first reported drouth was in 1809-10, when the missions and presidios suffered severely on account of the shortness of pasture and crops, causing much difficulty in procuring water and food for stock. Eleven years afterward there was a drouth of much more severity, and the two years' provender, which past experience had taught the missionaries to store up against an emergency, was largely depleted by feeding to the live-stock. Owing to the scarcity of maize and beans, a special dispensation was granted by the Senam, a father-president, allowing the use of meats, eggs, etc., on forbidden days. The severest drouth ever experienced commenced eight years later, or in 1828, and extended over a period of two years.

It was felt the keenest south of Juan Baptista. Wells and springs dried out, necessitating families living at Monterey to bring water from the Carmelo river, a distance of three miles. The loss in horses and neat cattle was placed at the time at 40,000 head. It is noted as a fact that at Purissima many bands of horses were driven over the cliff into the ocean for two-fold purposes—to end their sufferings quickly and to save the provender for the cattle and sheep. This was followed by a drouth in 1839-40, another in 1850-51, another in 1856-57, and two very severe, one in 1863-64 and the other in 1870-71. During the last two drouths there was heavy loss in live-stock, particularly in the southern part of the State. The writer in 1864 saw cattle starving in Los Angeles county, while in San Gabriel valley, in the same county, he saw cows standing by a cactus fence eating, or trying to eat, the prickly cactus, and bellowing with pain as the thorns pierced their jaws. Since 1871 there has not been any severe drouth, and not likely to be, with the improved system of irrigation and orchard and vineyard planting.

By referring to the rainfall table, given in last week's issue, it will be seen that the seasons' rainfalls have varied very considerably, as the following compilation by seasons for the 12 months ending with August of each year, shows:

Year.	Inches.	Year.	Inches.
1850	33.0	1876	13.67
1851	4.71	1877	8.47
1852	17.98	1878	21.05
1853	36.36	1879	14.20
1854	30.66	1880	22.89
1855	18.66	1881	17.69
1856	13.77	1882	35.68
1857	10.44	1883	9.32
1858	14.09	1884	36.13
1859	16.04	1885	17.27
1860	22.70	1886	26.74
1861	16.54	1887	26.13
1862	35.55	1888	16.28
1863	11.58	1889	18.30
1864	7.86	1890	24.78
1865	22.00	1891	16.28
1866	17.92	1892	32.27
1867	35.55	1893	19.97
1868	32.76	1894	11.56
1869	16.64		

The smallest rainfall within the past 39 seasons was 4.71 inches for the season of 1850-51, and the heaviest was 36.36 inches for 1852-53. The next heaviest was in 1861-62, when the rainfall was 35.55 inches. In the early part of 1853 and also in that of 1862, the Sacramento and San Joaquin valleys, except on the high lands, were inundated. The loss in live-stock by drowning, and houses and other improvements swept away, was very heavy each year, going into the millions of dollars; while, since 1849, the State was visited by two severe drouths, there were two heavy floods. Since 1876-77 the rainfall by seasons has been more uniform—the highest being 26.74 in 1879-80, and the smallest 11.56 in 1887-88.

From September, 1849, to August, 1888, the rainfall by months in inches, the total by months for the 39 seasons and the aggregate quantity average since 1849 are as follows:

SEASONS.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June	July	Aug.
1849-50.	2.05	1.50	2.22	12.50	4.50	.50	10.00	4.25	.25			
1850-51.					.65	.35	1.88	1.14	.69			
1851-52.		.18	2.14	7.07	.58	.12	6.40	.19	.30			
1852-53.		6.00	13.41	3.00	2.60	7.60	3.50	1.45				
1853-54.		1.50	1.54	3.25	8.50	3.25	1.50	.21	.31			
1854-55.		.65	1.15	2.67	3.46	4.20	4.32	1.15	.01			
1855-56.		.75	2.00	4.91	.67	1.40	2.13	1.84	1.03			
1856-57.		.19	.65	2.29	1.37	.49	.67		.35			
1857-58.		.65	2.45	2.63	2.44	2.46	2.87	1.21	.20	.0		
1858-59.		.02	3.01	.14	4.32	.36	3.99	1.63	.98	1.03	.03	
1859-60.		.00	6.48	1.83	2.37	.93	5.11	2.87	2.49	.01	.63	
1860-61.		.91	.18	4.28	2.06	2.92	3.32	.47	.59	.13		
1861-62.		2.17	2.32	15.03	4.26	2.80	.82	1.89	.01			
1862-63.		.39		2.32	1.73	2.75	2.36	1.69	.35			
1863-64.		.63	1.49	1.81	1.07	1.83	1.08	.74	.08			
1864-65.		.67	6.71	7.86	4.77	.71	.48	.37	.46			.05
1865-66.	.08	.48	2.42	.36	7.69	2.01	.47	2.25	.10	.01		
1866-67.			2.42	9.31	3.44	7.10	1.01	1.80				
1867-68.			3.89	12.85	6.03	3.14	4.34	2.30	.27			
1868-69.			.77	2.61	4.71	3.63	2.94	1.24	.64			
1869-70.		2.12	.85	1.96	1.37	3.23	1.64	2.12	.27			
1870-71.		.02	.58	.97	2.07	1.91	.69	1.45	.75			
1871-72.		.21	1.22	10.99	4.04	4.74	1.93	.61	.28	.02		
1872-73.		.22	1.03	5.38	1.23	4.36	.55	.51			.01	
1873-74.		.31	1.21	10.00	5.20	1.85	3.05	.89	.37			
1874-75.		2.25	3.8	.44	8.79	.53	.8		1.10			
1875-76.		.44	6.29	5.52	4.79	3.68	4.16	1.09	.19	.21		
1876-77.		3.32	.52	2.77	1.40	.46	.18	.64	.20			
1877-78.		.63	1.12	1.32	9.47	8.22	3.22	1.12	.16			
1878-79.	.29	.38	.41	.47	3.76	3.24	4.87	2.37	1.31	.13		
1879-80.		.73	1.10	3.58	1.51	1.76	2.12	1.28	.81	.50		
1880-81.				11.80	5.98	4.98	1.21	1.66		.50		
1881-82.	.30	.48	1.72	3.27	1.89	2.40	3.78	1.99	.35	.10		
1882-83.	.57	2.63	3.22	1.16	2.21	1.34	3.54	.73	2.90	1.45		
1883-84.	.90	.97	.61	.44	3.13	4.46	1.14	4.32	.06			
1884-85.	.60	2.01		10.45	2.16	.49	.8	.68	.11			
1885-86.	.08	.02	11.34	5.76	7.95	.29	2.68	4.08	.07			
1886-87.	.68	.21	2.21	1.12	6.8	9.4	2.53					
1887-88.	.02		.45	2.09	4.81	.57	3.04	.10	.40	.08		
Total.	7.15	25.90	68.63	176.39	148.24	109.48	110.16	76.87	23.15	5.93	.67	.08
Average.	.19	.66	1.76	4.52	3.80	2.81	2.82	1.97	.59	.15	.02	

During the 39 years the heaviest rainfalls in single months were as follows: January, 1867, 15.03 inches; April, 1880, 14.28 inches; December, 1853, 13.41; December, 1849, 12.50; December, 1867, 12.85; December, 1880, 11.80; December, 1872, 10.99; December, 1873, and March, 1849, 10 inches each.

It is to be regretted that we have not at hand data of the acreage seeded to wheat previous to the season of 1877-78, so as to extend the comparison of the rainfall, acreage and crop outturn by seasons as far back as possible. With this data could be determined all theories as to which rains, winter or spring, bring out the largest crop. The following are the rainfalls, wheat acreage and outturn since 1877:

Season.	Rainfall, Inches.	Acreage.	Outturn, Centsals.
1877-78.	25.45	1,800,000	16,000,000
1878-79.	17.27	1,850,000	18,500,000
1879-80.	26.74	2,100,000	35,000,000
1880-81.	26.13	2,400,000	22,700,000
1881-82.	16.28	2,900,000	22,000,000
1882-83.	18.30	2,800,000	21,000,000
1883-84.	24.78	3,400,000	30,400,000
1884-85.	16.58	2,500,000	17,800,000
1885-86.	32.27	3,400,000	24,000,000
1886-87.	19.97	3,300,000	18,400,000
1887-88.	11.56	3,100,000	19,600,000

The largest yield of wheat was in 1880, when the rainfall was only 26.74 inches for the season. The following year the outturn fell off about one-third, with an increased acreage seeded and only a slight falling off in the rainfall. In order to show the rainfall influences to better advantage, the following table is compiled:

Year.	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Total.
1878.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1879.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1880.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1881.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1882.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1883.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1884.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1885.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1886.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1887.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47
1888.	1.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	6.47

It will be seen by the above that the season of the largest average yield was when the heaviest rainfall was in the spring months. The smallest average yield was in the year when the rainfall for the season was light in the spring months. This, to a very great extent, is due to the spring rains, particularly those in April, cooling the air and causing the dread hot north wind which at times sweeps

over the Sacramento and San Joaquin valleys in the month of June to defer its visit until after the crop is harvested.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING DEC. 18, 1888.

- 394,902.—HORSE-BRUSHING MACHINE—C. Alexander, S. F.
- 394,950.—FRUIT-PICKER—F. & G. W. Ansley, Medical Lake, W. T.
- 394,636.—GOLD-SAVING APPARATUS—O. H. Bagley, Knappa, Ogn.
- 394,553.—WINDOW-BLIND—F. A. Bernard, San Bernardino, Cal.
- 394,641.—VINEYARD HOE—E. Cartwright, Lincoln, Cal.
- 394,677.—STATION INDICATOR—A. E. Cruceel, S. F.
- 394,769.—ROLLER BEARING—R. W. Hent, S. F.
- 394,575.—CIGAR-HOLDER—D. B. James, S. F.
- 394,654.—CONCENTRATOR—J. A. Jones, Tuscarora, Nev.
- 394,720.—LAMP-FILLER—M. W. Paxson, Virginia, Nev.
- 394,662.—BALING-PRESS—Jacob Price, San Leandro, Cal.
- 394,664.—CAN TESTER—W. H. Smyth, Berkeley, Cal.
- 394,741.—STATION INDICATOR—W. A. Turner, S. F.
- 394,799.—STATION INDICATOR—W. A. Turner, S. F.
- 16,098.—TRADEMARK—Aleutian Islands Fishing & Mining Co., S. F.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co. in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

WOUNDS FROM BARBED WIRE.—J. W. Dean, writing on this subject in the *Prairie Farmer*, says: "Ordinary liniments and salves are generally too severe, even when the latter is plentifully mixed with lard. A preparation consisting of one part turpentine and two parts lard will soothe the wound and keep away flies. Deep cuts can be healed thus without leaving a scar. But if the animal is not in good condition, blood-poisoning may ensue and death follow. Pine-tar applied to the part affected will also keep away flies, but it has a tendency to harden the bare flesh and render it more painful. A salve made of bitter-sweet and a little pine tar mixed with it will heal the wound and keep away flies. Ordinary cuts on barbed-wire fence, when the animal is in good health, will often heal rapidly without any application whatever, provided the flies are kept away. I will give a simple remedy, which will not only keep away insects, but will drive out maggots from wounds where they are found, and heal them rapidly. Take the inside bark of the elder and boil in lard until a strong salve is made; add a little tar. Apply plentifully and as frequently as necessary, and unless the wound is extremely severe it will soon heal."

RELIEVING BLOATED CATTLE.—The *Arizona* says that A. J. Port of Tempe has a method of relieving cattle suffering from alfalfa bloat, which is infallible. He uses a piece of inch hose, forcing it down the throat of the afflicted animal into the pouch. The gases are thus allowed to escape and the animal is at once relieved. It is preferable to "sticking," as no wound is left upon the animal.

THE Alameda pottery works, recently erected, have been closed down in order that new machinery may be put in to increase the capacity of the works and the variety of their manufacture.

Our Seed Offering—1889.

Great Inducements for New Subscribers.

To encourage gardening and further extend the circulation of the PACIFIC RURAL PRESS, we will offer, while this notice remains in our columns, to furnish to all old or new subscribers the following seeds on the favorable terms named below:

VEGETABLE SEEDS.		93 Antirrhinum Majus,	
83 Varieties.		fls mixed.	
In Papers, postpaid.		94 Caccalia Cucinera (Tas-	
BEET.		sel flower).	
1 Early Bloem Turnip.	10	95 Ca. panula Speculum,	
2 Early Extra Bassano.	10	(Venus' Looking Glass).	
3 White Sugar.	10	96 Candytuft, white fragt.	
4 Yellow Sugar.	10	97 Centaurea Cymus (Bach-	
5 Early Long Dark Blo'd	10	elor's Button).	
CABBAGE.		98 Clarkia, fine mixed.	
6 Early York.	5	99 Convolvulus (Morning	
7 Early Dutch.	10	Glory) mixed.	
8 Early Wakefield.	10	100 Foxglove, mixed.	
9 Early French Orchart.	10	101 Globe, mixed.	
10 Large Late Drumhead	10	102 Globe Amaranthus.	
11 Red Dutch (pickling).	10	103 Gypsophila Elegans.	
CELERY.		104 Ice Plant.	
13 White Solid.	10	105 Larkspur, finest mixed.	
CAULIFLOWER.		106 Linum Grandifol (Flax).	
14 Early Paris.	10	107 Love-in-a-mist.	
CARROT.		108 Marigold, d. French.	
15 Extra Early Forcing.	10	109 Marigold, African, dbl.	
16 Long Orange.	10	110 Mizounte, Sweet.	
17 Early Horn.	5	111 Nasturtium.	
18 White Belgian.	5	112 Noliata.	
19 Half Long Danvers.	10	113 Portulaca, mixed.	
CHART-MEEK.		114 Poppy, Double, mixed.	
20 Early Cluster.	10	115 Rocket, Sweet.	
21 Early Frame.	10	116 Scabiosa, Dwf, mixed.	
22 Long Green.	10	117 Sensitive Plant.	
23 Eng. Ghe-kin, Pickles.	10	118 Sweet Pea, White.	
LETTUCE.		119 Sweet Pea, Crimson.	
24 Early Curled Silesia.	10	120 Everlasting.	
25 Ice Drumhead.	10	121 Sweet Pea, mixed.	
26 Simp. on Early Curled	10	122 Sweet William, mixed.	
27 Prize Head.	10	123 Sunflower, Cal. Dble.	
28 Hanson.	10	124 Adlumia Cirrhosa (Mountain Fringe).	
30 Boston Market.	10	125 Al. he (Hollyhock) fine mixed.	
MELON.		126 A. he, China, mixed.	
31 Large Yel. Canteloupe.	10	127 Australian Vine.	
32 Extra Fine Nutmeg.	10	128 Balsam (Lady Slipper).	
33 Casaba (new).	10	129 fine mixed.	
34 Montreal Nutmeg.	10	130 Balsam, Fine Paris, dbl.	
35 Mountain Queen Wm. Jon.	10	131 Balsam, Splendid, dbl.	
36 Mt. Sweet Wat melon.	10	132 Balsam, Dwarf, double.	
37 Red Dutch (pickling).	10	133 Ballou Vine.	
38 Black Spanish do.	10	134 Brocolia Grandiflora.	
39 White Imp. or Lodi do.	10	135 Canna (Indian Shot).	
39a Ge. rg's Rattlesnake do.	10	136 Canna, fine mixed var.	
ONION.		137 Celosia Cristata Varie's	
41 Early Red.	10	138 Celosia Cristata Pur-	
42 Red W. one d. do.	10	purea.	
43 Yellow Danes s.	10	139 Clematis Flammula.	
44 W. Portugal or Sil. Skin	10	140 Dianthus, double, max.	
PARSNIP.		Dianthus Chinensis	
45 White Duf. h.	5	141 Indian Pink (China s.)	
RADISH.		142 Dianthus Chinensis	
47 Mammoth California.	10	D. ble White.	
48 Oliv. Purple Radish.	10	143 Celosia Cristata, fine	
49 Early Scarlet Turnip.	10	mix-d (Coxcomb).	
50 Blk Spanish or Wint's	10	144 Cichorium, fine, com.	
60a Long Scarlet.	10	145 Datura, fine mixed.	
SQUASH.		146 Evening Primrose.	
51 Early Scalloped Bush.	10	147 Four O'Clock, mixed.	
52 Early Summer's Neck.	10	148 Forget-me-not.	
53 California Field.	10	149 Geranium Zonale.	
54 Maclehead.	10	150 Geranium, fancy color-	
55 Boston Marrow Wint's	10	151 Godetia (The Bride).	
56 New Hubbard Wint's.	10	Gondetia (Hercules) lib.	
TOMATO.		152 Ipomoea (Cypress Vine).	
57 The Conqueror.	10	153 Ipomoea, fine mixed.	
58 Early Red Smooth.	10	154 Lobelia, Crystal Palace	
60 Trophy.	10	155 Lobelia, Blue.	
61 Canada Victor (earliest)	10	156 M. P. B. nt.	
62 Favorite.	10	157 Nicotiana Gracilis.	
TURNIP.		158 Parsy, fine mixed.	
63 Cow Heart.	10	159 Petunia, mixed.	
64 Yel. Rotunda's Sw'dth.	10	160 Phlox Drummondii.	
65 Early White Flat Dutch.	5	161 Peperum, a. a. u. m.	
66 Long White French.	10	(Golden Feather).	
67 Imp. Lat. Strap Leaf.	5	162 Salpiglossis mixed.	
68 Round Leaf.	10	163 Stock (Ten Week).	
69 Large Flat.	10	164 Wallflower, fine mixed.	
PEAS.		165 Wallflower, purple.	
70 Extra Early.	10	166 Zinnia, mixed.	
71 Champion of England.	10	167 Zinnia, Scarlet, dbl.	
72 Yorkshire Hero.	10	168 B. he Perennis (Daisy)	
73 Rural New Yorker.	10	Single.	
PEA.		169 Campanula Medium	
82 Black German Wax.	10	(Canterbury Belle).	
83 Refugee.	10	170 Canna, Bire.	
84 Red Valentine.	10	171 Thunbergia, mixed.	
84 China Red Eye.	10	172 Aquilegia Alpina (Col-	
MISCELLANEOUS.		umbine).	
74 Kohlrabi.	10	173 He. iotropium, fine mixd	
75 Purple Kale.	10	174 Heliotrop, c. dark, mixd	
76 Curled Parsley.	10	175 Verbena, m. choice, mixd	
77 Sage.	10	176 Verbena, Blue.	
78 Thyme.	10	177 Balmam Camella, f.ow'd	
79 Tobacco.	10	178 Carnation, fine mixed.	
80 Blue Gum.	10	179 Digitalis.	
81 Marjoram Cypress.	10	180 Dorelost Hyac (Hean)	
FLOWER SEEDS.		181 Gaillardia Grandiflora	
107 Varieties.		182 H. H.	
85 Acroclitum.	5	183 N. nonipha.	
86 Alonosa, Grandiflora.	5	184 P. rillia Nankhensia.	
87 Alyssum, Sweet.	10	185 Saponaria Multiflora.	
88 Amaranthus Abyssin's	10	186 Scabiosa Atropurpurea	
89 Agratum Las cauxli.	10	187 Scabiosa-Runner's (Clum-	
90 Anemone Cithrosa.	10	ber).	
91 Ambrosia Ullulata.	10	188 Scabiosa, fine st.	
92 Amaranthus Cautatus	10	189 Scabiosa, fine st.	
(Love-lie-bleeding).	5	190 Myrsinhyllum Aspara-	
		gagoides (Smilax).	

Oroville Fair Awards.

The premiums for exhibits at the Citrus Fair at Oroville, Dec. 17th to 22d, 1888, were awarded as follows:

ORANGES.—Best individual exhibit—35 exhibitors—Joe Gardella, \$25; L. N. Eyer, \$20; Mrs. James C. Gray, \$17.50; W. M. Pence, \$15; Ella Wilcox, \$12.50; Mrs. B. Bussey, \$10; J. Seconi, \$7.50; Brier & Welch, \$5; J. B. Rider, \$3; Mrs. Z. M. Sexton, \$2. Best 12 budded—8 exhibitors—Oroville Citrus Ass'n, \$5; G. W. Sovereign, \$3; Mrs. White, \$2. Best 12 seedling—32 exhibitors—Mrs. S. J. Bussey, \$3; Brier & Welch, \$2; J. B. Rider, \$1. Best cluster—Joe Seconi, \$5; G. W. Sovereign, \$3; J. J. Smith, \$2; 12 largest—18 exhibitors—Wm. Dunforth, \$5; Mrs. S. Gummow, \$3; Mrs. Jas. C. Gray, \$2.50. Best budded—3 exhibitors—Ella Wilcox, \$10; Joe Seconi, \$5; Mrs. Jas. C. Gray, \$2.50. Largest exhibit of oranges by one individual grower—3 exhibitors—Joe Gardella, \$50; Mrs. N. Calkins, \$25. Largest single orange—Mrs. E. Breslau, \$1.

LEMONS.—1 exhibitor—John S. Hutchins, \$10. Most tastefully arranged exhibit of citrus fruit by 1 individual—7 exhibitors—Ella Wilcox, \$10; Joe Seconi, \$7.50; Mrs. Jas. C. Gray, \$5.

OLIVES.—4 exhibitors—Anna Ragan, \$5; Mrs. Z. M. Sexton, \$3; Joe Gardella, \$2.

OLIVE OIL.—3 exhibitors—Mrs. Sexton, \$5; Annie Ragan, \$2.50; Joe Gardella, \$1.

OLIVE OIL PRESS.—Mrs. Sexton, \$5.

GENERAL EXHIBIT.—Largest and most varied exhibit by one person—M. V. Rowe, \$50; W. W. Merrithew, Mesilla Valley, \$30; J. Entzman, South Table Mountain, \$20.

FLORAL.—2 exhibitors—Mrs. M. A. Varney, \$10; (Special \$10 to Mrs. Varney.) Thermalito Co., \$5. **TOBACCO.**—5 exhibitors—C. DeBock, \$5; J. Entzman, \$3; Joe Freydt, \$2.

Largest display of minerals—A. Heckart, \$10; M. V. Rowe, \$5.

POTATOES.—15 exhibitors—J. H. Hoad, \$5; E. C. Bowers, \$3; Henry Covert, \$2.

MELONS.—3 exhibitors—A. Heckart, \$2; M. V. Rowe, \$1.

COTTON.—7 exhibitors—J. J. Sanders, \$2; Mrs. M. A. Varney, \$1.

RAISINS.—16 exhibitors—C. H. Leggett & Son, \$10; C. L. Durban, \$5; Henry Preston, \$2.50.

PRUNES.—7 exhibitors—Jesse Wood, \$5; J. S. Hutchins, \$3; B. Russell, \$2.

FIGS.—18 exhibitors—White Adriatic, C. H. Leggett & Son, \$5; R. Parker, \$3; Mrs. A. S. Hendricks, \$2.

BLEACHED FRUITS.—6 exhibitors—S. L. Skil'in, \$10; Jesse Wood, \$5; M. V. Rowe, \$2.50.

SUN-DRIED FRUITS.—24 exhibitors—M. V. Rowe, \$5; B. Russell, \$3; Joe Entzman, \$2.

ALMONDS.—15 exhibitors—R. Parker, \$5; I. L. & R. Mansfield, \$3.

WALNUTS.—12 exhibitors—W. W. Merrithew, \$5; W. M. Pence, \$3.

CHESTNUTS.—3 exhibitors—Ole Lund, \$3; Joe Daniels, \$3.

QUINCES.—8 exhibitors—F. Simonson, \$2; L. N. Eyer, \$1.

GRAPES.—5 exhibitors—I. L. & R. Mansfield, \$5; Geo. Spitzler, \$2.

APPLES.—44 exhibitors—P. H. Perry, \$15; W. M. Pence, \$10; J. H. Hoad, \$7.50; M. V. Rowe, \$5; E. P. Zink, \$3.

PEARS.—17 exhibitors—M. V. Rowe, \$5; I. N. Eyer, \$3; G. B. Rogers, \$2.

POMEGRANATES.—7 exhibitors—R. Parker, \$3; W. W. Merrithew, \$2.

PERSIMMONS.—12 exhibitors—W. M. Pence, \$5; Mrs. H. C. B. H. \$3; M. V. Rowe, \$2.

PRESERVES AND CANNED FRUITS.—13 exhibitors—Mrs. Dr. Bussey, \$15; M. V. Rowe, \$10; Mrs. A. S. Hendricks, \$7.50.

MOST TASTEFULLY ARRANGED EXHIBIT.—Mrs. S. S. Boynton and Mrs. H. C. B. H., \$40; Argonaut Parlor, N. S. G. W., \$20; Golden Fleece Parlor, N. D. G. W., special prize, \$20.

Largest number of budded orange trees planted in orchard by individual exhibitor during the year 1888—Daly & Sargent, \$20; R. C. Chambers, \$10.

Special premium offered by E. W. Fogg and D. K. Perkins for largest and best exhibit of oranges in excess of 10,000, by individual producer—Joe Gardella, \$100; Mrs. N. Calkins, \$100. Special prize of \$25 to Palermo Co. for display of citrus and deciduous fruits, plants and flowers. Special prize of \$25 to Thermalito Co. for display of ornamental shade, citrus and tropical trees.

PUMPKINS.—John R. Hafferty, \$3; J. E. Allen, \$2; J. N. Howard, \$1.

ALFALFA HAY.—W. M. Pence, \$2.50.

POPCORN.—A. Parish, \$2; A. Heckart, \$1.

HOPS.—Frank Cress, \$2; David Whipple, \$1.

BEANS.—C. L. Yetter, \$2; H. Wright, \$1.

STRAWBERRIES.—Robert Frisbie, \$2.50.

SUGAR CANE.—Mon Ming, \$2; R. C. Grubbs, \$1.

BETTS.—G. R. Hill, \$2.

SUGAR BEETS.—Geo. Peters, \$2.

PEANUTS.—J. S. Hutchins, \$2; I. L. & R. Mansfield, \$1.

GREEN TOMATOES.—B. Russell, \$2; J. Gardella, \$1.

EGG PLANT.—H. Covert, \$2.

OILS AND EXTRACTS FROM CITRUS FRUITS.—Norton & Eckman, \$5.

SEEDLING DATE TREES.—Mrs. W. Elliott, \$1.

SEEDLING ORANGE TREES.—Christman & Hil-ton, \$2.50.

HONEY.—F. Peters, \$1.

CALIFORNIA WOODS.—A. Heckart, \$5.

VEGETABLES.—W. A. Coates, \$5.

LICORICE.—Wm. Dunstone, \$2.

GOLD QUARTZ.—McMillan Bros., \$3; E. W. Fogg, \$5; M. H. Morgan, \$5.

THE UTAH POULTRY ASSOCIATION will hold its second annual show in Ogden Feb. 11th to 13th, numerous premiums being offered for finely bred, fancy and game fowl. Last year's exhibition was a great success. W. W. Brown, the secretary, invites the co-operation of fowl breeders in adjoining States and Territories.

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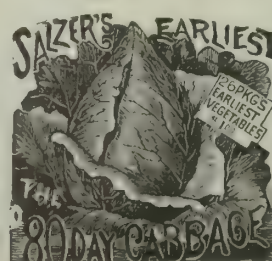
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I do hereby caution Nurserymen all over the United States, that have been in the habit of stealing my Walnut and Chestnut cuts, and appropriating them to kinds that they do not represent, that I have had all the cuts of my General Descriptive Catalogue and those of my Essay on Grafting the Walnut duly "copyrighted," and that hereafter I will prosecute any one guilty of such contemptible piracy.

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Seeds, Etc., Continued on Page 18.

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JOHN A. SALZER, La Crosse, Wis.

ENTOMOLOGICAL.

The Scale-Destroyer.

On page 556 of our last issue we had an interesting account of the recent arrival of scale-destroyers, sent by Mr. Koebele. We are now indebted to Mr. D. W. Coquillett of Los Angeles for an account of his observations on scale-destroyers, which he prepared for the Los Angeles Times as follows:

We recently had the pleasure, in company with Mr. A. Scott Chapman, of visiting some of the principal orange groves in the San Gabriel valley. * * * Rumors were afloat that the scales were dying in great numbers from some unknown cause, and it was mainly to satisfy ourselves of the nature of these rumors that the present visit was made. We found that the scales were indeed dying in large numbers, but the cause thereof was far from being unknown; a careful examination of the red scales revealed the presence of the tell-tale holes of their anatomy out of which the minute parasites had made their escape to the outside world. The scales which had thus met their death at the hands, or rather the mouths, of these little parasites were mostly females, and, what seemed very singular, were always located on the upper side of the leaves. As if it were not enough for us to have discovered these indications of parasitic attacks, it was our good fortune to meet Madam Parasite herself, a fusely, petite atom of animated nature, scarcely discernible with the naked eye, busily engaged in searching for new victims in which to consign her future progeny.

Evidences of the presence of this little, but powerful, friend of the orange-growers were found in three different orange groves, situated several miles apart, showing that already it is quite widely spread over this valley; and, although its legitimate victims—to which it is heartily welcome—may for a time carry everything with a high hand, still it is very evident that this parasite, which is carrying out one of the fundamental laws of nature, will eventually reduce their numbers to such a degree that they will no longer be able to prevent our orange groves from producing their accustomed quota of fruits.

In several places we found that the white scales of all sizes and ages had perished in large numbers, and Mr. Chapman, who has closely watched the progress of this mortality, tells me that it reached its greatest height in the month of August, when fully three-fourths of the scales succumbed to the inevitable. It would appear that this mortality was due to the enfeebled condition of the trees attacked. The fact that the greatest mortality occurred during the time when the trees were in their stage of partial dormancy, when the flow of sap is very limited, gives additional weight to this hypothesis.

While on the subject of scale diseases and parasites, I may state that several years ago Messrs. J. W. Wolfskill and Alexander Crawford found a pear orchard in this city very badly infested with San Jose scales, so badly infested that during the entire growing season the trees had scarcely made any growth; a few years later they were much surprised at the changed appearance of these trees, which had neither been sprayed nor fumigated, and upon carefully examining the scales they found that a very large proportion of them had been perforated by parasites. At the present time these trees are remarkably clean and healthy, while scarcely a living scale is to be found upon them.

The advent of these scale-destroying parasites among us is very opportune, and the fact that our National Department of Agriculture, through Prof. Riley and his assistants, is now engaged in introducing other scale-destroyers from foreign lands, gives us great hopes that in a few years, at the farthest, the reign of the ubiquitous scale bug will have drawn to a close, and our orchards and orange groves, the pride and groundwork of our delectable State, will again flourish in all their glory, as of yore. —D. W. Coquillett.

Another Account of Scale-Destroyers.

The imported Australian parasites for the extermination of the white scale are destined to work great benefit to the orchards of the State. A few days ago some of the imported scale-destroyers, among which are some resembling the ladybug, were placed under a tree in the scale-infested Wolfskill orchard in Los Angeles, and a small tent was constructed with a canvas roof protecting the entire tree. The sides are of mosquito netting of close texture. This protects the insects, confines their operations and enables those interested in the experiments to observe the habits of their pests. The ladybugs were found to be exceedingly voracious, and destroyed the scale so rapidly as to endanger the process of the less active Australian parasites. Accordingly, the ladybugs were taken to another tree and similarly inclosed. The two stations are, therefore, in operation within a few yards of each other. Already myriads of black flies can be seen within the netting, and they have begun their deadly work on their white enemies. Of course, the actual results can only be guessed at this time, as it requires fully three months for the flies to develop from the egg to the winged insect. Mr. Wolfskill is very confident that the natural enemy of the destructive orange pest has been discovered. It is now only a question of the effect of the climate upon

their existence and habits. They are very prolific, and if they can be successfully grown here, the country can be readily supplied with them, and the orchards will yet be saved. —Anaheim Gazette.

Convict Labor.

MESSRS. EDITORS:—In your report of resolutions passed by the State Grange was one referring to the employment of convict labor, which I think shows a little misapprehension of the position of the laboring classes on convict labor. As a farmer, an ex-Granger and a Knight of Labor, I think I know something of the principles of the Grange and also the position of the workers in their relations to labor in general, and I believe I am right in saying that both bodies are steadily working to the same end, and the principle that underlies both organizations is that to the producer belongs the thing produced. In other words, to the laborer belong the fruits of his toil. Selfishness may creep in sometimes and warp people's better judgment.

The position taken by the working classes generally in regard to convict labor is that their labor should not be hired out to contractors, who will put inferior articles on the market and undersell honest labor. I think, however, the Grange will not be able to point out any instance where fault has been found with convicts being employed in making jute bage or quarrying granite, as these industries are carried on in this State.

The principle is a sound one, that convicts should contribute to their own support; and not only that, but, if possible, they should be made to contribute toward the expenses that are caused by their crimes. All countries make their criminals do something useful; some, like England, putting them on the construction of roads and other public works. There are always works to be carried on in any community that can be done by convicts without interfering with honest labor, and there is where it will be found to be wisest to employ them. The convict question is a knotty one and one that will be hard to settle satisfactorily. Prevention is better than cure, and if the principles of the Patrons of Husbandry and of the Knights of Labor could be carried out, crime would be lessened. J. B.

Moore Station.

Moore Station, on the Northern California railroad, has a population of 700 and has been a distributing point for many years. It has become noted as the terminus of the great lumber flume from the Sierras. During the last two years its mild and equable climate has attracted attention of home-seekers. Mrs. Mary A. Varney, in January, 1888, commenced laying out and planting a flower garden. At the earnest request of the managers of the citrus fair at Oroville, she exhibited specimens of flowers and plants grown in her garden in the open air. Her exhibit attracted much attention and covered about 60 feet of space and consisted of very choice varieties of chrysanthemums, Chinese hibiscus, hedge hibiscus, abutilon, flowering maple, ipomoea bona nox or moon flower, ivy-leaved geraniums, seedling orange trees and mammoth vines of all descriptions; also geraniums, begonias, and roses and some very rare plants, as the umbrella plant, south sea onions, cotton, cuphea, Dutchman's pipe, caladium; also orange, cherry, peach, plum, lemon, apricot and Russian mulberry trees and many other choice varieties.

Marysville and Vicinity.

During the week of the Citrus Fair a Rural representative visited Yuba City and Marysville. There is a steady and growing demand for fruit land in this section, and expert horticulturists are very pronounced in their opinion in according this belt advantages for growing the orange. The yards surrounding most of the dwelling-houses have from 4 to 12 orange trees, and are now loaded with fine fruit. One party picked and sold \$110 worth of oranges from five trees this season. Messrs. Abbott & Montague have laid out a tract of land containing 3000 acres in 10 and 20 acre lots, six miles below Marysville at Reed's station, and known as the Colmena Colony.

A good portion of this tract is bottom land, and this vicinity furnished the peaches and grapes that took the first premium at the district fair of this year.

The counties of Yuba and Sutter for a quarter of a century have been prominent as the center of our great fruit production. During this year home-seekers and capitalists have sought investments in real estate, and it seems that this section will be a leading rendezvous for increasing immigration during the year 1889.

FISH-LADDER IN THE MOKELUMNE.—Senator Langford, president of the Mokelumne Ditch and Irrigation Co., has informed the District Attorney of Amador county that the fish-ladder, for the non-construction of which suits had been brought against both Mr. Langford and the company, has been completed at the Westmoreland dam on the Mokelumne river near Lancha Plana. It is said to be one of the best fish-ladders in the State. This will probably put a stop to all further proceedings in the matter when existing judgments and orders of courts are satisfied.

Who Can Afford to Keep Ground Squirrels?

The following is an extract from a treatise on the California Ground Squirrel, published by the manufacturer of Wheeler's Carbon Bismuthide. A copy of the complete book accompanies each package of this exterminator as sold in the market:

Under this head comes properly the treatment of the amount of damage which can be done by these rodents. As to their storing capacity, I have, myself, taken over half a bushel of corn, acorns and other food, stored by squirrels, from a single burrow; this was in mid-winter, and the material lay in a storage chamber close to a warm nest; a nest roughly composed of dry grass.

Referring to my file of the PACIFIC RURAL PRESS, I find that Mr. Lorenzo of Capay, Yolo Co., once took from the pouch of a single squirrel 1520 grains of wheat, weighing 1½ ounces. In July, 1877, Capt. Allender of Pajaro took 1270 grains of plump wheat from the pouch of one squirrel, and that half a mile from the nearest grainfield. Patrick Sexton of Atlanta, Contra Costa Co., once took 778 grains from the pouch of one squirrel, weighing ¾ ounce. Calculating on this last quantity, which is the smallest cited, it would require 1051 grains to make one ounce. Now, Mr. Sexton estimated that located in the harvest-field, a squirrel would fill his pouch every five minutes (which period is shorter than I should place it). This makes him gather eight pounds per day of 12 hours. Carrying this further, it would be seen that 100 squirrels would, in three weeks, steal nearly six tons, worth at any time several hundred dollars. This is an extravagant estimate, but it may serve to impress upon the owners of infested fields the incalculable damage they suffer.

Prominent farmers of California have variously estimated the annual tax imposed by ground squirrels. For instance, at a meeting of the Santa Clara Farmers' Club, in 1871, it was estimated that ground squirrels and gophers (principally the former) destroyed one-fifth of the crops annually. One gentleman here stated that he had known 81 squirrels killed in one burrow (some dry retreat, I should surmise, where numbers had congregated to escape the floods). Again, at a Squirrel Convention, held in Contra Costa Co. in 1873, it was estimated that the annual loss by squirrels, in this county, was not less than \$250,000, and Alameda as much. One farmer—Mr. Dougherty—it was stated, lost 5000 cents of grain, worth \$10,000. The loss to the State was placed in the millions, to say nothing of the damage done to young vineyards and orchards.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3.00 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Darwin's Theory.

Darwin's theory of the "survival of the fittest" is simply that the weakly die, while the robust and hardy thrive and live. How true this is of seed growth, and how necessary to sow only that which is suited by nature to live and develop. D. M. Ferry & Co., the great Seed Growers and Seed Dealers of Detroit, Michigan, supply only the best and purest raising their own seeds by the most improved methods and with the greatest care, bringing to their business the invaluable aid of more than 30 years' experience. Their Seed Annual for 1889 is a real help to the gardener, and should be in the hands of all who desire to purchase pure and true seeds. Send your name to the firm's address at Detroit, Michigan, and they will forward you a copy.

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Sorghum.

Now that Sorghum is once more attracting the attention of farmers throughout the country, and has this time apparently come to stay, it is well to know that the Sorghum Hand Book, a valuable treatise on the cultivation and manufacture of Sorghum, may be had free of charge on application to the Blymyer Iron Works Co., Cincinnati, Ohio.

SENATOR HEARST has bought the 400-acre ranch of Eli T. Sheppard, near Sonoma, including a winery, distillery and 80,000 gallons of wine and brandy. The deed does not state the real consideration, but it is thought the price paid was \$80,000.

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J. S. ELLIS' dairy near Bakersfield was completely destroyed by fire Christmas night. Loss, \$5000; partially insured.

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 - 3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt.....60
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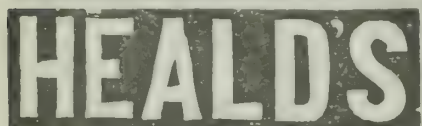
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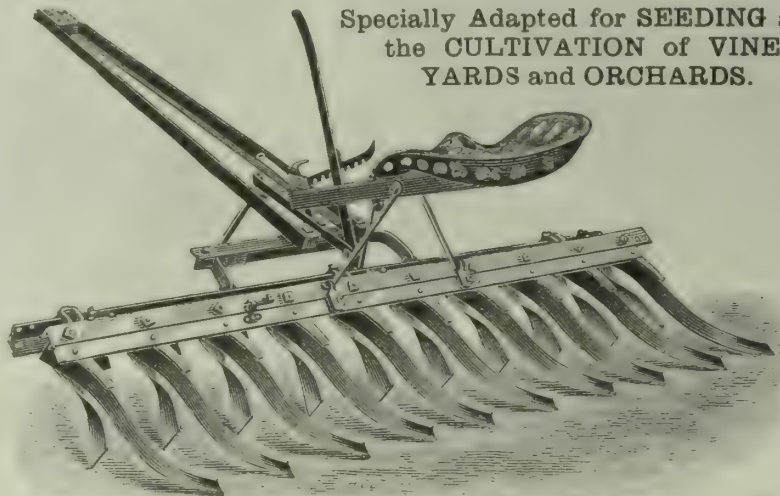
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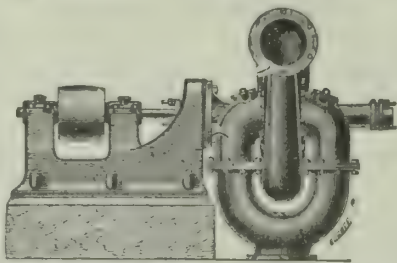
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Beet Sugar in Oregon.

The "beet-sugar industry" was pretty thoroughly discussed at Woodburn by Marion County Pomona Grange. Our people must find some new industry to take the place of excessive fruit-raising and grain-growing. "Farmer No. 1" has a most able letter upon this subject, which we clip from an exchange:

Many of your business-men have slow accounts on poor, hard-working men, who would gladly work it out on your roadways; and such labor would come back to you with compound interest, in the shape of increased trade that now stops in all the little towns that surround you. There is no excellence without effort. There is often pleasure and profit in seeing what we can do. The object of money is not to be hoarded. You have now among you men that have grown immensely rich off the industry of the surrounding country—men that count their interest money by the thousand. They are not willing to-day to help bear the burden of government in common with the poor farmers off whom they have made their riches. I know whereof I speak. When an individual will send his money out of the country to avoid his proper share of the public taxes, is he honest? Has he any patriotism? And when he loans, he does it under the name of some friend that is in Europe, New York, or perhaps that has been dead 40 years, to avoid the same burden. Can such a man be trusted? If so, how far? If an incendiary were to burn his smokehouse or dwelling, he would call upon the authorities to run the culprit down at any cost, because it is taken from the treasury of the very people he is helping to rob. It is almost a shame that such men are classed as citizens. Americans ought to be God-honoring, freedom-loving and strictly law-abiding citizens. Look at the last assessment. Oh, shame! The Shylocks knew the Willamette bridge and other improvements were to be paid for. I am not growling, but only speaking in defense of justice. I am an old taxpayer and have helped to build all the public buildings of this State and county. I have ridden past the foundation of the great structure, going in to pay my small share that was needed in its construction, when I was cold from being poorly clad, truly needing some of the tax-money to buy more comfortable clothes, and this only voiced the condition of thousands. I remember once riding to town with a friend who was going in to pay his taxes, and, just as we passed the Statehouse, he looked up at the imposing, half-finished structure and remarked that his poverty of dress was not in keeping with the immense pile of masonry that stood before us. The average farmer always pays his taxes cheerfully, and never winces unless he feels that the burden is not resting equally, or that the public funds are being recklessly applied.

But as no city or county ever became very prosperous from its citizens butt-n-holing each other and talking of the most probable candidate for the U. S. Senate or to fill the various other offices, let us turn to another part of the subject, and that is manufacturing.

The light of genius, industry and patriotism that lit up the French Empire during the days of the Great Napoleon and had also made them masters of the whole world, was fast smoldering in the ruins of their former greatness, when Germany, through a series of victorious contests, was enabled to lay a burden of several hundred millions of dollars to indemnify themselves for losses sustained consequent upon war. This heavy debt drove the French people into the various manufacturing industries, and, for many years following, almost every fashionable article found upon our own, and upon the markets of the world, bore the name of a French artisan. The opening up of these new industries enabled her people to liquidate the great debt in so short a time that it was an astonishment to the whole civilized world, proving beyond controversy that no State, nation or people can long maintain their national vigor and commercial standing among the nations of the world unless they become manufacturers to the extent of the natural resources by which they are environed.

Then, after reviewing a little short history of what industry, genius and home enterprise have, will and can do for a people, let us unite in asking the coming Legislature to offer a bounty of \$10,000, payable to the first man or company for the production of the first 150 pounds of beet sugar raised and manufactured anywhere in this State. We will not cavil about its location. Such an enterprise will not mislocate itself. Then, as Salem has the money and fine natural surroundings, let her come to the front and take the prize. The general advantage to

the State will be the same, locate it where they may. It probably would not exceed one-quarter mill tax to cover the outlay, and I am sure that is nothing when compared to the great good that would accrue to the people from such an outlay.

This is not a good corn country, and the question suggests itself to every farmer, what kind of a crop can be raised upon our fallow lands in order to get some return for the work? By introducing the beet-sugar industry, it would enable the farmers to plant some of their fields lying idle through the whole season, thereby getting pay for the work that must necessarily be done to prepare the land for wheat. Not only so, but it would help to diversify our products.

In order to set the sugar industry squarely on its pegs and enable it to succeed and pay from the beginning, it possibly would be wise to appropriate a few hundred dollars, to be used as premiums on the best five, ten, twenty-five, fifty, etc., acre lots during the first and second years. As the factory would be of no use without plenty of raw material to work, this course would insure a fair and speedy test. If the industry would prove as profitable as it has in France and Germany, many other factories would spring up all along the coast, which would give a new impetus to the agricultural interests of this country. I could mention many other advantages that would grow out of such an enterprise. As this article was penned only as a passing thought, I leave the subject for the public's candid consideration.

FARMER NO. 1.

The London Exhibit Convention to Re-assemble.

The following note has been sent to all members of the London Exposition Committee, etc. As the matter in consideration is very important, we trust that due notice will be taken and a full meeting be held:

DEAR SIR:—The Executive Committee of the London Exhibit for California, at its first regular meeting, held on the afternoon of Dec. 18th, after the close of the convention of which you were a member, by unanimous action called a meeting of the general convention to be held in the City of Sacramento, Jan. 22, 1889.

You are hereby notified that such meeting has been called, and will be held, and that matters to come before it are of the highest importance. Your presence and interested attention are solicited.—WM. H. MILLS, San Francisco, Chairman; CHAS. B. TURRILL, San Diego, Secretary.

A Card from Mr. Lubin.

EDITORS PRESS:—The house of John W. Draper & Son, of Covent Garden, London, England, has in the past, through me, given the fruit-growers much valuable information, and even now devote much of their valuable time in assisting the bringing about of the proposed exhibition of the products of California in London.

It behooves every fruit-grower in the State to remember this, and when agencies are to be established in London for the sale of our products, it would be rank ingratitude on our part to overlook the claims of this liberal and old-established house. They are now furnishing the Executive Committee of the London exhibition with valuable and necessary information.—DAVID LUBIN, Chairman Plan Committee on London Exhibit, Sacramento, Dec. 22, 1888.

Jersey Beef.

As additional testimony to the excellence of Jersey beef, referring to the mention on page 555 of last week's RURAL, we give the following letter written by Henry Lux, butcher of San Jose, to Henry Pierce, the well known breeder:

In reference to the Jersey steers from Yerba Buena ranch, I have to say that they weighed, for their size, more than any cattle I have ever killed, and I never cut up an animal that was in all respects better meat. I thought them stall-fed, until you told me they had not been, having gotten their entire living off the hills back of San Jose. Taking into account how they were raised, I am sure no breed of cattle could have equaled the quality of meat, three year-old steers weighing upward of 700 pounds and two close to 600 pounds.

NICARAGUA CANAL IN MINIATURE.—A model of the Nicaragua canal, by which it is proposed to connect the Atlantic and the Pacific, has lately been exhibited in New York. It occupied a space 20 feet long, 6 feet wide and 3 feet high, and presented a topographical picture which was much admired. The model ship was towed across the real water of the model canal, the locks were worked, and the two oceans heaved all day long. We note this with special interest, in view of the bird's-eye map of the canal mentioned last week as presented by the Grangers' Bank of this city.

A UNIQUE CALENDAR for 1889, with a quaint little colored picture for each month, illustrating the costume of some nationality, comes to us from Hoosick Falls, N. Y., with the compliments of the Walter A. Wood Company, whose mowing and reaping machines are famous the world over.

THE STOCK YARD.

Alfalfa-Growing.

EDITORS PRESS:—I saw in the RURAL recently a letter from some gentleman from Sacramento who wishes that more farmers would give their experience on raising alfalfa. I would like to give my experience on alfalfa, for I always have good hay.

First, I always sow early in spring—about the time of the last frost—as it is very tender when young.

After sowing, I harrow in same as for grain. For this reason it covers well and gives it a good chance to root before being exposed to the sun or frost. Put on plenty of seed—you need not be afraid of getting too thick a stand. You cannot reap unless you sow; that's the drawback to most of farmers. The first year you will be able to cut two crops of fine hay.

After the first season, I take a sharp harrow when the alfalfa begins to sprout in spring, and give it a thorough harrowing; this loosens up the soil and tears out all the foul seed. It does not injure the alfalfa root. You will find that it will pay you for all your trouble.

If on irrigated land, you want to irrigate freely when first sown, so as to keep the ground moist till it gets through.

I always cut my hay just before it blossoms, for this reason: You will find the stems much finer, and the strength retained in the stalk instead of in the blossom; besides, it will stand up much better to mow. What you will lose in cutting early, you will gain in cutting it much cleaner. Of course it will not yield so much to the acre, but you will find it will keep more stock to the acre, for they will eat every spear of it.

I consider alfalfa hay the best in existence for young stock, as it always keeps the bowels regular. It is more like natural grass. I feed no other hay, and when my neighbors' horses are all sick, my stock come in at night as they do in spring of year with their heels in the air—you don't know which end is going to get in first. Give plenty alfalfa and they will thrive, but do not do as some men do, fill up the barn and let the stock look through the cracks, and then curse the alfalfa hay.

I have found from long experience that grass is not fit for mares which you want to breed, for as long as they are feeding on it, you will find they are very hard to get with foal. Cows are the same way. Put them in a dry pasture a few weeks before you breed them, and you will find your mares will get with foal much quicker.

As to the best mode of curing alfalfa hay, I find it is to not let it lie too long after being mowed. Rake it into windrows and let it dry as much as possible in the windrow before being put in the cock, then haul it in immediately, for if too dry, the leaves drop off. Be sure to have it thoroughly cured before putting in the barn, for if the least moldy or damp, it will surely give your horses the heaves or a bad cough. This I know from experience of green farm hands. Salt it well when it is put in the barn—that will stop it from molding if too damp when hauling.

As for getting foul seed in your land, it is almost impossible to avoid, especially on a river-bottom, for your next neighbor above you may neglect to take the proper care, and the wild seed will wash down your land. I have known it to wash for miles. FARMER.

Calaveras Co.

Shorthorn Association Proposed.

EDITORS PRESS:—Will you kindly give place in your valuable paper to a suggestion I wish to make to all parties in California that feel an interest in breeding and improving Shorthorn cattle in the State. For one, I firmly believe that breed of cattle does not receive the attention they are entitled to. For beef, it is generally conceded they "take the cake." Their milk, I believe, in quality, will compare with the Jersey, and in quantity with the Holstein. I mean, with some little painstaking, to bring this about. I am not prepared to say that they are able to live in snowdrifts and on sagebrush as well as the little black Gallo-way, but as the country gets more peopled, and they all will have at least a few head of cattle, and as the more intelligent farmers advocate housing and feeding their stock, this quality of roughing it will be less appreciated.

Would it not be well for all parties that are interested in Shorthorns to organize an association, and meet, say two or three times a year and consult about the best way to advance the best interest for the breeders? I know of two or three that are of that opinion. Why could not some one suggest a meeting of the breeders at some place easily reached by all?

Sites, Dec. 10th.

P. PETERSON.

[It would be an excellent idea to have such an association. There was one 12 years ago, which expired for lack of interest, but probably more general interest would be taken now. It is well worth trying. What do breeders think about it?—EDS. PRESS.]

THE State of Nevada begins the new year with \$639,989.95 in its treasury in coin, and \$814,000 in bonds in the school fund.

Kern County Notes.

EDITORS PRESS:—Kern is waking out of sleep and is rubbing her eyes, which behold with astonishment the things which the days are bringing forth.

At the headquarters of the recently instituted Board of Trade are displayed the wonders of our productive county. Upon the streets are many new faces of the substantial business cast on the lookout for the main chance. Work upon the new system of canals and reservoirs to develop the lower lands of Messrs. Carr & Haggin and Miller & Lux estates is being pushed with the energy and thoroughness which characterize all their enterprises. As to the fact that the lands of these two vast estates are to be subdivided, all doubt is dispelled. After repeated rumors pro and con, Mr. Carr now makes the statement in print that the lands of that company will be placed on sale within 30 days. I make the statement of these facts to you because it is well known that many who are now in this State seeking homes consult your columns as being a reliable source of information.

What we need now is a class of thrifty people who are able and willing to subdue the soil of this genial valley which has been blessed in point of natural resources lavishly. Having seen much of this State, I have yet to find a location that combines all the good points that this does. For raisins we have a soil and climate as good as any location yet tested. The freedom from early fall rains and exemption from fogs makes this the banner county in point of requisite conditions. It has been proven beyond cavil that for the following-named fruits we are also in the front rank, viz.: Apriots, peaches, pears, raisins, grapes, either in green or dried product. Our proximity to the Mojave rainless district, combined with our ample supply of water for irrigation, furnishes conditions of superior excellence which have thus far escaped the notice of horticulturists generally. I predict that when a lapse of time shall have passed sufficient for our development, this will be the largest and most important point of production and shipment of fruit in the State.

The initial move has been made. As announced by the PRESS, the land sale came off, and many a resident of Kern was aroused at what seemed fabulous prices, and are inclined to question as to the bona-fide character of actual sales. To some who were wise in their day and generation, it is no matter of surprise, when we see the conservative railway company putting in thousands of dollars as an outlay for facilities to accommodate the trade which they see must come to them at this point. The conclusion is, that the time is not far distant when the dream of the wildest enthusiast is to be realized. Merit will win in the end, no matter what obstacles intervene. W.

Bakersfield, Cal.

Poisoned Wheat for Squirrels.

This is the very best time of the year to kill off these pests. A little expense in this month will save much time and trouble later on. * * * We have never found anything give so much satisfaction in the long run as the prepared poisoned wheat. If this is used in reasonable quantities, either on the very edge or just inside the squirrel hole, the squirrels will eat it greedily; there is little risk of killing off birds and practically no risk at all of injuring livestock, as the grain soon becomes so scattered that what any one animal bigger than a squirrel could get hold of would be little more than a medicinal dose. The material is cheap; it can be distributed by one man, and does the work as completely as anything we know of. There are several brands on the market, some of which are perfectly useless. At the Southern farm we have generally used Wakelee's, and it has done very good work.—San Leandro Reporter.

MR. GEO. A. WILEY, manager of the Cook Stock Farm, has just returned from the East, where he purchased and shipped one Cruikshank Shorthorn bull, one Polled-Angus bull of the "Urica" family, one imported Devon bull, eight brood mares of trotting strain, and one weanling colt by Red Wilkes, dam by Mambrino Patchen. A more extended description of this shipment of thoroughbred stock will appear in our columns.

NURSERIES AT LODI.—Jas. A. Anderson, a nurseryman of a dozen years' experience in the great valley of California, whose advertisement appears elsewhere, has issued a 14 page catalogue of the trees and plants which he is cultivating in his "Riverside Nursery" at Lodi, San Joaquin county, with hints as to transplanting and pruning.

CAPTAIN DALTON, chief patrolman of the Fish Commission, recently arrested and had convicted of illegal fishing 14 Italians, who were fined \$100 apiece. As one-half of the fine goes to Captain Dalton, it was a very good day's work. The parties were fishing on Russian river, in Mendocino county.

SHORTHORNS FROM KENTUCKY.—Cattle-breeders will be interested in the large importation of Durhams, advertised by Messrs. Goff & Prewett in another column, and now on exhibition in this city.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

HORSES AND CATTLE.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polaris, Aberdeen Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

B. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAXE & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

GEO BEMENT & SON, Maple Grove Farm, Oakland P. O., breeders of Yorkshire Cattle & Essex Swine.

F. H. BURKE, 401 Montgomery St., S. F.: Registered Holsteins; winners of more first prizes, sweepstakes and special premiums this year than any herd on the Coast. Pure Berkshire Pigs. Catalogues.

H. P. MOHR, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

H. S. SARGENT, Stockton, importer and breeder of registered Jersey Cattle. Correspondence solicited.

P. PETERSEN, Sites, Colusa Co., importer & breeder of registered Shorthorn Cattle. Young bulls for sale.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale!

DENMAN & MCNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. O. F. Swan, manager.

J. B. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton,) Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

COTATE RANCH BREEDING FARM, Pages Station, S. F., N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

POULTRY.

W. G. ELLIS, 954 Broadway, Oakland, Cal., importer and breeder of thoroughbred Black Leghorns.

A. C. RUSCHHAUPT (successor to Jas. T. Brown), P. O. Box 43, Station B, Los Angeles, Cal., yard on State St., Brooklyn Heights, importer and breeder of all leading thoroughbred Fowls, and Eggs, at reasonable prices. Circular free.

W. C. DAMON, Napa, \$2 each for choice Lt. Brahmas, Wyandottes, P. Rocks, White and Brown Leghorns. Best Seed for sale.

D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langhans and Wyandottes.

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J. J. ALBEM, Lawrence, Cal., breeder and importer.

SHEEP AND GOATS.

E. H. ORANE, Petaluma, Cal., breeder and importer. South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Eam for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine. High graded rams for sale.

A. W. WOOLSEY & SON, Fulton, Cal., importers & breeders Spanish Merino Sheep; ewes & rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

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TYLER BEACH, San Jose, Cal., breeder of Thoroughbred Berkshire and Essex Hogs.

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PETER SAXE & SON, Lick House, S. F.



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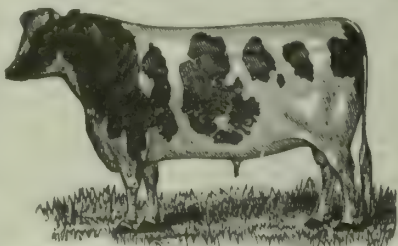
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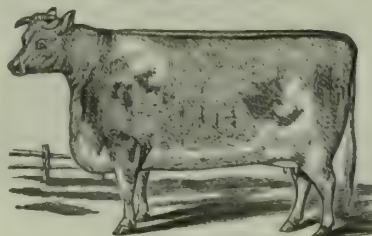
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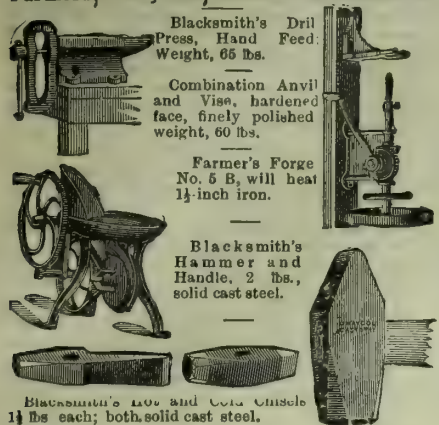
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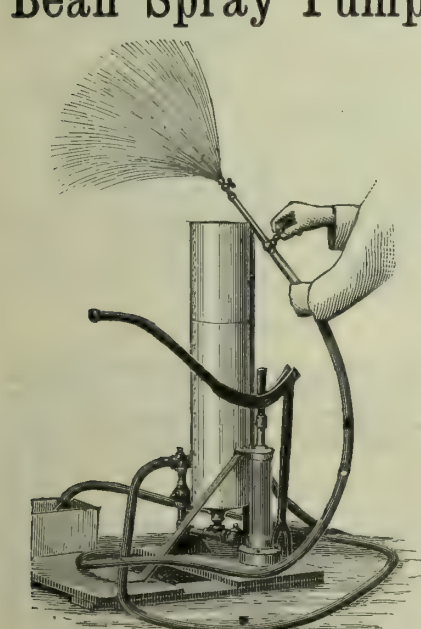
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All Kinds of Green and Dried Fruits. CONSIGNMENTS SOLICITED. 324 Davis St., S. F.

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AGRICULTURAL WORKS,

Crockett, Contra Costa Co., Cal.

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IRON AND BRASS CASTINGS.

Machinery of all kinds furnished at shortest notice.

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Layers, 30 bx	1 60 @ 1 70
Loose Muscates, common, 30 bx	1 35 @ 1 40
choice, 30 bx	1 55 @ 1 70
Unstemmed " in sack, 30 lb.	44 @ 5
Stemmed " " " "	5 @ 5 1/2
Seedless " " " "	4 @ 5
" 20-lb bx	1 00 @ 1 10
" Sultanas, unbleached, in bxs 30 lb.	5 @ 6 1/2
" " bleached	— @ —

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations while very poor grades sell less than the lower quotations.

BEANS AND PEAS.	
Bayo, cti.	2 30 @ 2 75
Butter.	2 50 @ 3 01
Red.	2 00 @ 2 15
Pluk.	2 25 @ 2 50
Large White	— @ —
Small White	1 90 @ 2 15
Lima.	3 25 @ 3 50
Old Peas, Nkeye	1 50 @ 1 80
do green	1 50 @ 1 75
do Nien	1 25 @ 1 45
BROOM CORN.	
South'n 30 ton.	60 00 @ 80 00
Northern.	60 00 @ 80 00
CHICORY.	
California.	5 @ 6
German.	6 1/2 @ 7

DAIRY PRODUCE, ETC.

BUTTER.	
Cal. Com. to fair, lb 20 @	22 1/2
do good to choice	25 @
do Fancy brands	27 1/2 @
do pickled.	15 @ 20
Eastern in tubs.	20 @ 25
do in rolls.	25 @ 30
CHEESE.	
California, lb.	10 @ 10
Eastern style.	12 1/2 @ 14
EGGS.	
Cal. ranch, doz.	32 1/2 @ 35
do store.	25 @ 30
Eastern.	20 @ 27 1/2

FEED.

Wheat, per ton.	10 00 @ 14 50
Wheat and Oats	10 00 @ 14 00
Wild Oats.	11 00 @ 13 00
Clover.	11 00 @ 13 00
Tame Oats.	10 00 @ 13 50
Barley.	8 00 @ 11 50
Barley and Oats	10 00 @ 12 00
Alfalfa.	8 00 @ 10 00
Straw bales.	55 @ 65

FLOUR.

Extra, City Mills	4 75 @ 4 85
do Co'try Mills	4 50 @ 4 75
Superfine.	3 50 @ 4 00

GRAIN, ETC.

Barley, feed, cti.	72 1/2 @ 81 1/2
do Browing.	90 @ 95
do fair to choice.	97 1/2 @ 1 05
Chevalier oats	1 30 @ 1 40
do com to good	1 10 @ 1 20
Buckwheat.	2 75 @ 3 25
Corn, White.	1 07 1/2 @ 1 17 1/2
Yellow.	1 07 1/2 @ 1 15
Oats, milling.	1 20 @ —
Choice feed.	1 17 1/2 @ 1 18 1/2
do good.	1 15 @ —
do fair.	1 10 @ —
do Gray.	1 05 @ —
Rye.	1 75 @ 1 85
Wheat, milling.	5 14 @ 1 53 1/2
Gilt edged.	1 50 @ —
do Choice.	1 45 @ 1 47 1/2
do fair to good	1 43 1/2 @ 1 45
Shipping, choice	1 41 1/2 @ 1 42 1/2
do good.	1 37 1/2 @ 1 40
do fair.	1 37 1/2 @ 1 40

HIDES.

Dry.	13 @ 14
Wet salted.	5 @ 6

HOPS.

Oregon.	12 1/2 @ 17 1/2
California.	12 1/2 @ 17 1/2

ONIONS.

Red.	— @ —
Silver.	30 @ 60

NUTS, ETC.

Walnuts, Cal. lb.	7 @ 9
do Chile.	10 @ —
Almonds, hd shl.	5 @ 7

California Products at Chicago.

CHICAGO, Jan. 2.—Of California fruits there are some Easter Beurre pears left and sell in a small way at \$3.25 to \$3.50 per box.

Trade in California dried fruits, which ruled so active during the fall, became suddenly quiet late in the year, with the quietness attributed to stock-taking and other causes calculated to make the produce markets quiet around the holidays. Stocks are heavy and prices are very reasonable for all lines, and holders have no doubt but that the period of dullness lately experienced will soon pass. As yet a steady feeling prevails, with quotations as follows:

Apricots—Evaporated, bxs, 15c; bleached, bxs, 14c; do, sun-dried, sks, 9@10c. Peaches—New, bleached, unpeeled, 8 1/4 @ 10c; do, peeled, bxs, 14 @ 15c; do, sun-dried, sks, unpeeled, 6 1/4 @ 7c; do, new, evaporated, unpeeled, 10 @ 11c. Nectarines—White, bxs, 9 @ 12c; do, red, bxs, 8 @ 11c; do red to white, sks, 7 @ 10c. Plums, new, pitted, 9 @ 10c; new, do, unpitted, 4 @ 7c; Prunes, according to size, in sks, 5 @ 9c; Silver, 10 @ 13c.

Raisins—Loose Muscates, old, 30 lb box, \$1 @ 1.10; do, new, \$1.30 @ 1.50; London layers, new, \$2.25 @ \$2.40.

Beans are just about steady. The market has been ruling quiet for some time, but as the holiday season is now passed an increase in business is looked for. Current prices are as follows: California pea beans, \$1.95 @ 2. Lima beans, California, 30 lb, 4 1/4c.

WHEN completed, the dam across the American river at Folsom will contain over 20,000 cubic yards of masonry of the heaviest kind to be found on the coast. The water will fall over it from a height of 56 feet. That volume of power which the State proposes to utilize in the prison manufactures and for lighting by electricity and other purposes will be about 600-horse power. The company which is superintending the enterprise, however, will have at command at least 5000 horse power. It is intended by the projectors of the scheme to transmit a large volume of this power, by means of electricity, to Sacramento, there to be utilized in driving the machinery of factories and mills and also for electric lighting. Besides furnishing the great volume of power for Sacramento's industries, the water company will irrigate about 50,000 acres of land.

PACIFIC COAST WEATHER FOR THE WEEK.														
(Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.)														
DATE.	Portland.		Eureka.		Red Bluff.		Sacramento.		S. Francisco.		Fresno.		Keeler.	
	Rain.	Temp.	Rain.	Temp.	Rain.	Temp.	Rain.	Temp.	Rain.	Temp.	Rain.	Temp.	Rain.	Temp.
Wednesday	.00	35 E Cy.	.70	52 SE Cy.	.82	50 S Ry.	.88	52 E Ry.	1.09	56 SW Cy.	.46	54 SE Cy.	.10	44 N Cy.
Thursday	.00	40 SE Cy.	.03	52 E Cl.	.22	50 N Cl.	.70	52 N Cl.	.11	53 NW Fr.	.00	54 NW Cl.	.00	46 S Fr.
Friday	.00	42 NE Cl.	.00	52 NE Fr.	.00	50 E Cl.	.00	50 SW Cl.	.00	53 NW Fr.	.00	52 SW Cl.	.00	44 NW Cl.
Saturday	.00	36 NE Cl.	.04	56 NW Cy.	.00	50 NW Cy.	.02	48 N Fr.	.24	52 NE Cy.	.00	52 NE Cy.	.00	40 NW Cl.
Sunday	.00	40 E Fr.	.00	54 NE Fr.	.00	54 N Fr.	.00	52 NE Fr.	.00	55 N Fr.	.00	52 W Cl.	.00	40 SE Cl.
Monday	.00	36 E Cl.	.00	48 E Cy.	.00	50 NW Fr.	.00	50 E Cy.	.00	52 NE Cy.	.00	50 NW Fr.	.00	42 N Cl.
Tuesday	.T	36 SE Ry.	.00	54 NW Cy.	.00	48 NW Cl.	.00	48 N Cl.	.00	51 E Fr.	.00	40 S Fr.	.00	38 NW Cl.
Total	.T		.77		1.04		1.60		1.44		.46		.10	

EXPLANATION.—Cl, for clear; Cy, cloudy; Fr, fair; Fy, foggy; Om, calm; — indicates too small to measure. Temperature, wind and weather at 12:30 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.

THE PACIFIC RURAL PRESS.

It is a Farm and Home Journal of the highest class, pure in tone and well informed on all matters of industrial interest. It is handsomely printed and illustrated. It is a 20-page weekly, and is furnished, postage paid, for \$3 per year in advance. Single copies, 10 cents, prepaid.

All branches of Farming, including the keeping and breeding of Horses, Cattle, Sheep, Swine, Bees, Poultry, etc.; Garden, Fruit, Vine, Grain, and Hop Culture; Reliable Market Reports, with other important departments devoted to the Grange, Home Circle, News, etc.

It is the Leading Agricultural Home Newspaper and standard authority on all branches of California Agriculture.

It has the fullest and most accurate REPORTS OF HORTICULTURAL MEETINGS, and is the best record of the EXPERIENCE OF INDIVIDUAL FARMERS AND FRUIT-GROWERS in all parts of the State.

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DEWEY & CO., Publishers, No. 220 Market Street, San Francisco.

THE coal we receive from Baltimore under the name of Cumberland is largely used by ironmongers, instead of coke, though they use both. From 1870 to 1873, our receipts of Cumberland coal were comparatively small, varying from 2200 to 9800 tons per annum. Since 1874 we have been receiving larger supplies of that description. The imports from 1874 to 1877 were 11,400 to 16,172 tons per annum, or 54,483 tons, an average of 13,621 tons per annum. In 1878 the imports were only 9900 tons, and in 1879 only one cargo of 1800 tons came to hand. From 1880 to 1883 the imports were 138 769 tons, or 17,386 tons per annum. The total for 1887 was 26,675 tons, the largest quantity ever imported from Baltimore.

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Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or of some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

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A few tons Apricot and Peach Seed. Persons having such for sale address immediately, S. M. A., Box 2361, San Francisco, Cal.


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For the half-year ending December 31, 1888, a dividend has been declared at the rate of five and one-tenth (5 1/10) per cent per annum on Term Deposits, and four and one-fourth (4 1/4) per cent per annum on Ordinary Deposits. Payable on and after Wednesday, January 2, 1889. GEO. TOURNEY, Secretary.

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INCORPORATED 1884.

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White Adriatic Fig, Ten Tested Varieties of Table Figs, Olives, Pomegranates, and also a Fine Collection of Palms, Roses and Oleanders.

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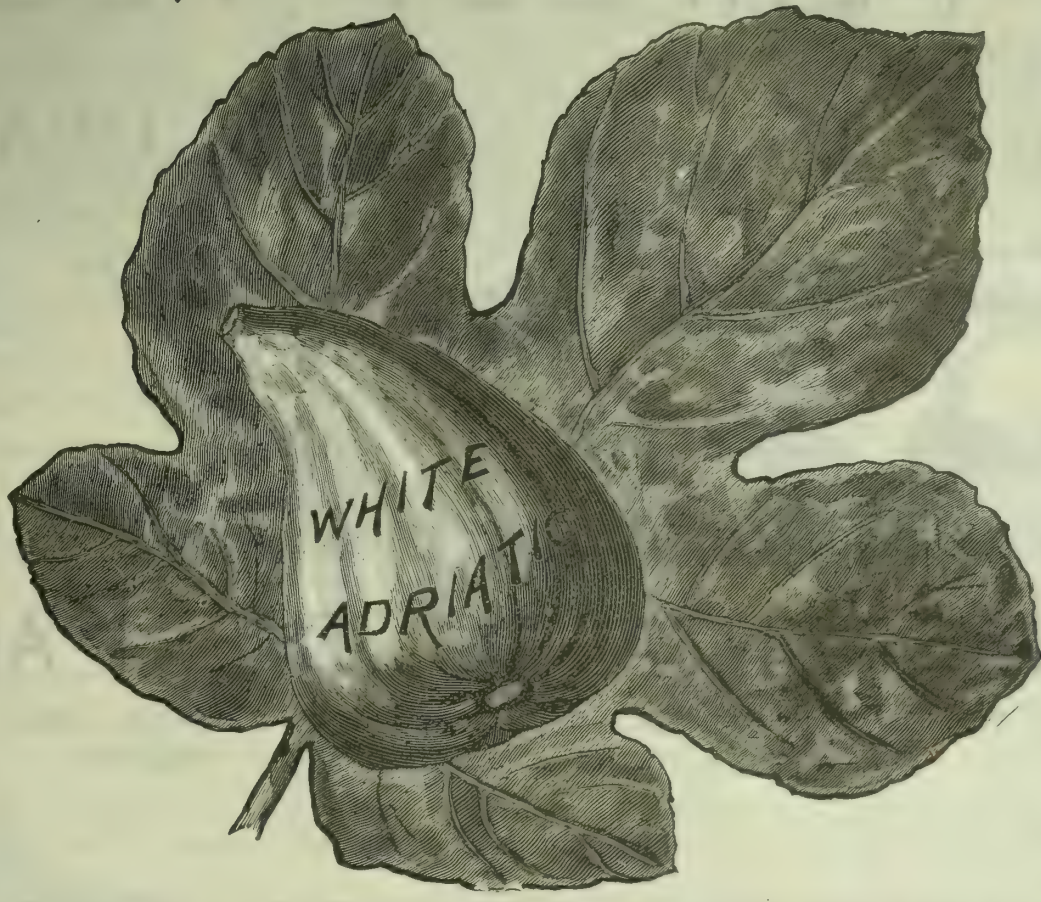
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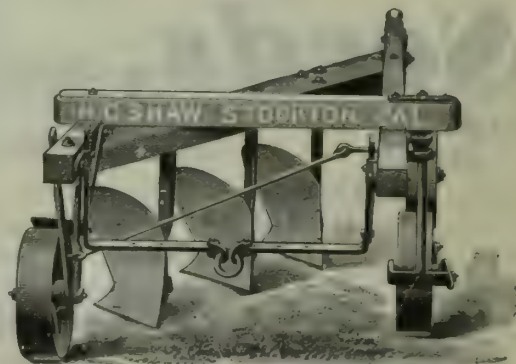


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Vol. XXXVII.—No. 2.

SAN FRANCISCO, SATURDAY, JANUARY 12, 1889.

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The Cleveland Bay.

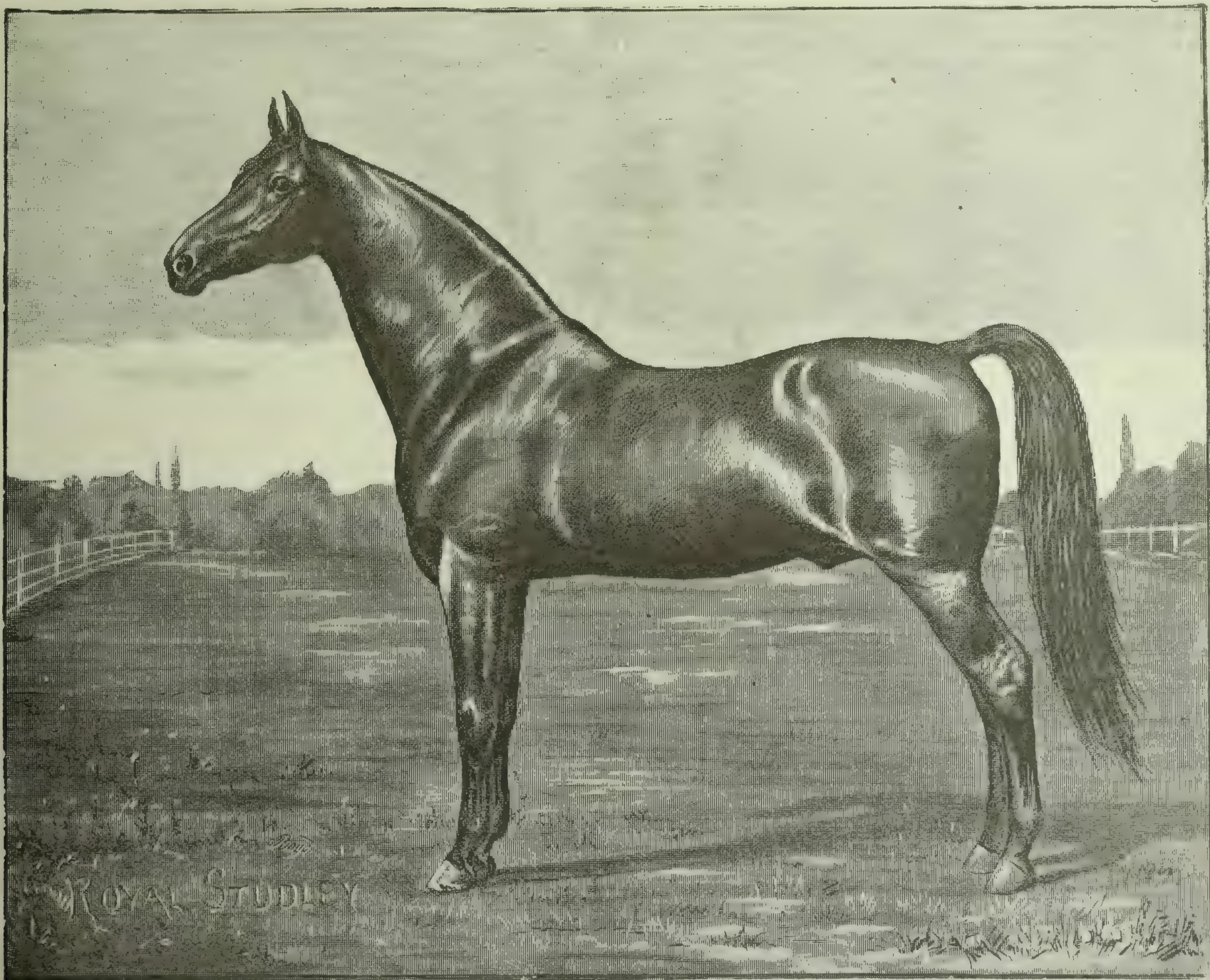
The Cleveland Bay is gaining popularity rapidly in California, and bids fair to occupy as important a place in the public mind on this Western Slope as it has already commanded east of the Rocky mountains. Some most ex-

United States by Stericker Bros. of Illinois in July, 1885. He is recorded as No. 68 in Vol. 1 of the American Cleveland Bay Stud Book. His sire was Young Candidate, winner of the first premium at the Great Yorkshire in 1875, and sold when 11 years old for \$2000 to go to Australia. He was counted the finest Cleve-

California and in 1886 took the first premium at the Contra Costa Fair. In 1887 Royal Studley was successful in taking first premiums in the "all work" class at Sonoma County Fair and at the Sonoma, Marin and Napa and Solano District, and the second premium at the Golden Gate Fair the same year. This record at the

all well exhibited in Royal Studley's form and carriage.

The Cook Stock Farm, of which a description is given by a contributor on another page of this issue, has quite a group of Cleveland Bays, as well as other breeds of horses and cattle. A colleague of Royal Studley is another famous



IMPORTED CLEVELAND BAY STALLION ROYAL STUDLEY 68, OWNED BY SETH COOK OF DANVILLE, CAL.

cellent representatives of the breed have been imported and are now being bred with care and intelligence and with full belief in the value and general acceptability of the breed by those who own them.

We have the pleasure of adorning our first page this week with the portrait of Royal Studley, a splendid imported stallion which heads the Cleveland Bays on the celebrated breeding farm of Seth Cook near Danville, Contra Costa county, California. Royal Studley was foaled in the spring of 1883, and was brought to the

land Bay of his day. Royal Studley's dam was by Whalebone, also a winner of Great Yorkshire and Royal honors. Royal Studley's earlier ancestry was also honorable, and he shows his descent in every feature and action. He is a fine, rich bay in color, has superior movement and wonderful style.

Royal Studley has had a full career as a prize-winner in this country. He began with the year of his arrival by taking the first premium in his class at the Illinois State Fair in 1885. After this victory he was brought to

Golden Gate Fair he beat in 1888, for he won the sweepstakes, open to all. He also stood first in the special class at the State Fair of 1888.

Royal Studley is a splendid specimen of the Cleveland Bay, which is confidently put forth as the best breed for carriage and general-purpose horses. We have previously given general notes on the characteristics of the breed. Their rich bay color, good hight, sloping shoulders, short back, powerful loins and long quarters, well-carried head and general aspect, betokening activity and strength, are

Cleveland Bay, Napoleon, whose portrait we give on page 37 of this issue. Napoleon was foaled in 1885 and imported in 1887. He has an excellent pedigree. He is a beautiful bay with black legs and deep girth. He took the first premium in London in 1887, besides a silver medal, showing against horses of all ages, the competition being open to all England. He also won other victories abroad, and in this country took the second premium at the Illinois State Fair in 1887, and the first at the great horse-show in Chicago the same year.

FLORICULTURE.

Spring Flowering Bulbs.

[Read at the last meeting of the State Floral Society by F. A. MILLER, San Francisco.]

To do full justice to this most interesting subject requires more time than I can give it now. I cheerfully give you my experience, hoping that others may improve on my remarks, and add what I may omit. I will confine myself to the more ordinary treatment of bulbs, by which any one may succeed, and shall not touch the artificial methods of manipulation used by practical florists for cut flower purposes in and out of season.

Hyacinths.

Beginning with the ever-popular hyacinth, three methods of treatment are practiced; they can be grown in water, for which purpose glasses of particular shape are made. Only very strong and sound bulbs should be selected for this method. The glass is filled with water up to the neck, so that the bulbs placed on top of the neck will just touch the water. After setting the bulb, place the glass in a dark, cool room for about three weeks. In doing so, roots are developed and top growth is retarded. Once a week the water should be changed without removing the bulb from the glass. In course of three weeks, more or less, the glass will be well filled with the roots, when it should be brought to the light near the window. The ordinary warmth of the room will stimulate top growth and eventually bring out a good spike of fragrant flowers. The process is an interesting one and generally quite satisfactory. I prefer the single varieties of hyacinths for this purpose. They are less top-heavy than the double flowers and keep the position of the plant better.

Another method is the cultivation in pots. Select good sound bulbs, one for a five-inch pot or three for a six-inch pot. The soil in which they are to be planted should consist of two-thirds good loam, mixed with one-third of sand and well-rotted manure. See that the pots are clean; fill them with the prepared soil, rather loose, to within one inch of the top; then place the bulb in position and press it firmly into the soil, so that the top of the bulb comes within one inch of the rim of the pot. Then fill in more soil, so as to cover the top of the bulb about a half-inch; press down the soil gently all around; water well with the rose of a watering pot and set the pot away in a dark, cool place in the house, or if outdoors, cover with a box; or, what is still better, plunge the pots in the ground and cover to the depth of three or four inches with moss or sand. All this is done for the purpose of developing roots and to retard top growth. After three or four weeks, when the pots are well filled with roots, bring them to the light and warmth of an ordinary room. The roots having been developed first, the bulbs have a proper support to develop their flowers to perfection.

The third method consists in planting the bulbs in the open ground, where they are expected to flower. This can be done at any time from November until January, or even later, if the bulbs are still in sound condition, and have not sprouted too much. Well-prepared soil, deeply cultivated, such as we would have for most other garden plants, will do very well for hyacinths. The bulbs should be planted about six to eight inches apart, three to four inches below the surface and set firmly. Nothing will prevent them from developing good flowers except insect pests, which may be kept away by an occasional application of wood ashes or other well-known remedies.

Crocuses and Snowdrops

Are great favorites with the Eastern and European people on account of their early blooming, when flowers of any kind are few and far between. I am told very often, and by practical gardeners, too, that they will not thrive in California. I cannot quite agree with this proposition. While I am not prepared to advocate a very extensive cultivation of these bulbs, because in our mild climate we can have other and perhaps more showy flowers, quite as early, I still hold that they should not be entirely neglected. A bed of crocus, with its bright and varied colors, is very attractive, and a clump of snowdrops, with their graceful little bells, very charming. The crocus bulbs should be planted about three to four inches apart and three inches deep; snowdrop about the same. Now the reason why many people do not succeed with them is because they plant them too late. The bulbs finish their growth in Europe very early, and are fully matured in May. They cannot be kept very well more than five or six months in a dormant condition. This makes the proper planting season in October, or as early as they can be procured from the importers. They soon lose their vitality after that time, and although the bulbs may look sound, they cannot be trusted after this month, and yet our good people will purchase them from the dealers as late as April, when the germ of the bulb is entirely gone. As I said before, if you wish to succeed with the crocus and snowdrop, plant them early in October. Do not disturb them after their flowering season, as they will produce their flowers for a number of years. About

Tulips

We hear the same story, and true enough their success so far is quite limited under open-ground cultivation. However, I have seen

some very good tulip flowers produced in Oakland and other places in the open ground. The tulip is another one of the bulbs which should be planted early, as it does not keep its vitality very well. In richness of coloring they are superior to hyacinths. For pot culture they are to be treated about the same as hyacinths, but they should be potted in October. For outdoor cultivation they can also be treated like hyacinths, and should be planted in October, four inches deep, and about five inches apart. They remain in the ground from three to four years, and are very apt to produce a better result the second season. Failures in growing tulips successfully may be attributed chiefly to late and shallow planting. They should be planted in groups or masses, and are then, on account of their brilliant coloring, very effective. Some good, sound tulips, especially of the late show tulips, can still be had at this time (Dec. 14th), and those who wish to plant had better not delay any longer, and be particular in the selection of sound bulbs which do not yet show any vegetation.

Narcissuses

Are doing so well with us here under ordinary treatment that it seems unnecessary to say anything about their cultivation. But as many of the better varieties are very little known, it may be well to speak of them, and encourage the cultivation of superior kinds. The family of narcissus is divided into various sections as follows:

(1) The Tazetta Section, or bunch-flowering narcissus, among which we find the common Chinese narcissus, the Paper White, Staten General, Grand Monarque and Prince of Orange, nearly all of which are cultivated here, and do well with everybody.

(2) The Jonquil Section, producing small yellow flowers, single and double, are well worth cultivating, as their exquisite fragrance and their productiveness of flowers are very much in their favor. If left in the ground undisturbed, they yield better after once becoming thoroughly established.

(3) The Daffodil Section is not so well known yet, and as lordly gems of their type, they should be in every garden. Such varieties as Incomparabilis and Balbe Codinzu (or Hoop Petticoat Narcissus) are very floriferous and most effective. They surpass in beauty of form and agreeable perfume all other flowering spring bulbs.

(4) The Trumpet Section is also quite scarce hereabout as yet. Their forms are most elegant, and are well adapted for ladies' wear. The bi-color variety, of a pure white perianth and rich yellow trumpet, is simply magnificent. The Scoticus (or Garland Lily) is also very fine; Trumpet Major of a rich yellow; the Nobilis and others are all very good.

(5) The Double Flowering Section is not so highly esteemed, and I myself much prefer the single-flowering Narcissus. Still some such as the Koman, the Van Lion, the Incomparable (regularly known as Butter and Eggs) and the Double White, which is as fragrant as a Cape Jasmine, are admired by many.

(6) The Poeticus Section should not be omitted. The variety called Dandy, white, with a lemon-yellow cup, and the Poeticus, which is white with an orange-red cup, are both very attractive and deserve to be cultivated.

Most of the Narcissus may be grown in water, but the Tazetta Section, or bunch-flowering Narcissus, are best adapted to this method. All Narcissus should remain undisturbed in the ground, and with a good annual top dressing they will hold their own for three or four years. I would advise, however, to dig them up after the third flowering season, replenish the soil with plenty of old rotten manure, and replant again early in the fall—as soon as the rainy season has fairly set in. The best time to take them up is in June, when the leaves begin to decay. The strongest bulb should be selected and kept as other bulbs, in a dry, cool place until fall.

Ranunculus and Anemones

Are worthy of better treatment than they generally receive. The flowers of both are beautiful in form as well as in diversity of color. They do not require any particular treatment. They also make good pot plants. A light loam well enriched with old manure suits them best. The bulbs are of a very dry nature, and have a lifeless appearance. I have found that on this coast they frequently lie in the ground a long time before they begin to vegetate. I cannot account for this. The bulbs keep well in a dry state, and they may be planted in autumn, or during winter, or in early spring. I would advise the following treatment for California: In February, a month earlier or later will not matter much; lay the bulbs between two layers of moss, which may be kept outside or in a cellar in a box. Moisten the moss well, and see that it is kept damp. The bulbs will readily begin to make roots and start to grow; then plant them in pots or in the garden, where they are expected to flower, and the result will be surprising. They will go ahead rapidly; will flower in spring and continue to bloom for a long time. They don't want to be disturbed, and will do well for a number of years, but the ground should be enriched every winter with a heavy top dressing. They should be watered freely in dry weather. They will amply repay the little care and trouble bestowed upon them.

The Lily.

Volumes might be written on the treatment of lilies, and yet we would ask for more in-

formation. They are not spring flowers exactly, but a great deal depends on the management of the bulbs at this particular time, when they are offered for sale, and therefore it is proper to speak of them now. The natural habitats of lilies are widely distributed, and this fact alone makes it difficult to cultivate them all successfully in any one locality. This is readily illustrated right here in California, the home of not less than eight distinct species. *Lilium Washingtonianum*, for instance, is found in the Sierra Nevada mountains, where it flourishes so well. It is a beautiful white lily, and very fragrant, but in vain has it so often been tried about here, and never succeeded. We may eventually succeed, but I doubt it. The atmospheric and probably other conditions under which they thrive there are not at their disposition here. But we do succeed well with *Lilium Rubraem*, a very beautiful lily, opening pure white and soon changing to a satiny pink. It is found in Mendocino and Lake counties. I find no difficulty in flowering it here. Out of over 100 varieties of lilies in cultivation in Europe, surely we ought to succeed here with 12 to 15 of them. The following kinds have been and are now grown with success here: *Lilium Candidum* (so-called St. Joseph lily), *L. Longiflorum Album*, *L. Harrisii*, *L. Auratum*, *L. Lancifolium Rubrum*, *L. Lancifolium Album* and *L. Thunbergianum*. In a few instances others may have grown to perfection, but not to my knowledge. I have flowered *Lilium Tenuifolium*, and got a beautiful and almost graceful flower of a brilliant red; Mr. Sievers, I believe, also had good success with it. But others ought to do fairly well here; our California *Lilium Humboldtii* I have been very successful with. *Lilium Hansonii* may do well enough here, and *Kramerii* might also do well. It is really worth while to give these and others a fair trial. However, there are several difficulties to be overcome. Lily roots should not be kept out of the ground a day longer than is absolutely necessary, and when once planted they should not be disturbed except for very urgent reasons.

Unfortunately, dealers in these bulbs are sometimes over-anxious to receive them early. They insist upon the importer delivering them early, and in order to satisfy the unreasonable demand of the dealer, the grower goes to work and takes the bulbs up before they are fully matured, and consequently are not in a condition to flower well, if at all. After these bulbs have been taken up before maturity, four to six weeks or more are consumed in their transit to destination, and, to say the least, they are in a deplorable condition. I give you a parallel case in my own experience. I supply California lily bulbs to Eastern and European houses. They all want them early; yes, I have been requested to have them in New York in September. Now our California lily bulbs are not in a matured condition before the middle to the end of October, and the best result during my 25 years in that business was obtained from bulbs dug up in November. Our lily bulbs which arrive from Japan in December will give a better result than those which have arrived in September or October. In our climate we are enabled to plant lilies out in mid-winter, and if we can procure well-matured sound bulbs in January, and plant without delay, we are very apt to succeed in flowering them.

The bulbs require a deep, rich sandy loam well drained; they should be planted at least four inches below the surface, and the soil should be pressed around them firmly during the operation, holding the scales firmly together, and not allowing any particle to lodge between the scales. This also shuts out water draining down from the surface, which is very important; the scales of these bulbs are in fact their life-preservers. Some cultivators not only do this, but give additional protection to the bulbs by laying a piece of tissue paper over the top to keep the soil from falling between the scales. In cultivation of lilies in pots, I would advise the use of pots large enough to complete their growth without shifting into larger ones.

The Lily of the Valley is the most admired spring flower of all, loved by everybody, and yet few are successful with it. Most people consider it an unyielding pet; still it will yield to the manipulation of the practical florist to such an extent that, in New York City, its flowers may be obtained for about eight months in the year. The Lily of the Valley is a native of Continental Europe, and its bulbs or roots come to us in two forms, one of which is in the shape of a number of flowering as well as leaf pipes grown together in one almost inseparable mass, a good clump containing from 5 to 8 flowering pipes. The other form is the single flowering pipe, with a few roots attached to it. These single pipes are imported annually by the million, and furnish the flowers offered for sale by the florists. They are preferred to clumps on account of their cheapness and light weight, and importation of clumps is fast becoming a thing of the past. The pipes are not adapted to permanent cultivation, and to establish them in the garden is totally impracticable, at least as far as our experience or knowledge goes, up to the present time. It is barely possible that a number of pipes shaded together in a protected and partially shaded place, may in the course of a few years establish themselves, but I could not advise the attempt. For successful cultivation out of doors, nothing will do but a clump, I believe; that we can establish the Lily of the Valley permanently in the garden is practically proven by the fact that Mr. Delaher of Oakland has succeeded in making them a complete success for years. There is no reason why others

should not do likewise. They should be planted in partial shade under trees, protected from dry summer winds, covered with leaf-mold to the depth of at least an inch, and should be watered during the dry summer season at least twice or three times a week. Under this treatment, clumps of the Lily of the Valley can be made a complete success, I think. The proper time for outdoor flowering would be about April in this climate. The flowers which we see in the florists' windows during the winter months are produced by forcing the pipes into bloom in a temperature of 80 to 90 degrees, which operation is impractical for most amateurs.

ENTOMOLOGICAL.

A New Foe of the Peach.

[The following was read at the Fruit-Growers' Convention at Chico by W. G. Klee, State Inspector of Fruit Pests.]

During the last year an insect belonging to the clear-winged moths (*Egerias*), and new to science, has attracted attention. I refer to the California peach root-borer. My attention was first called to this pest by Mr. J. Britton of Santa Clara, who in May last sent me specimens of the insect in various stages, but in such condition that the exact species could not be identified. Enough, however, could be seen from which to conclude that it was a near ally of the pernicious Eastern peach root-borer, *Sannania (Egeria) exitiosa*. In Mr. Britton's company I visited shortly afterward the infested region, which lies about 2½ miles southwest of San Jose, and I obtained some few specimens of larvæ and chrysalids. Not satisfied with my result, I again visited the place in company with Mr. Albert Koebel, Prof. Riley's agent, and Mr. H. Brinard of the Santa Clara Valley. Together we spent the greater part of the day on the place of Mr. Leigh, southwest of San Jose, and obtained a number of specimens of both larvæ and chrysalids. These were readily found by removing the soil from around the base of the trees and laying bare the bark for several inches. Gummy exudations indicated the presence of the borer, and with a knife it was easily extracted. This borer works directly under the bark, feeding on the cambium layer. Its tunnels, which are more or less vertical, vary from 4 to 8 inches in depth and from 2 to 4 inches in width. The larva has a great appetite, yet on account of its habit of working downward, the tree is not as quickly girdled as when the Eastern peach-borer is at work. Frequently three or four borers were found at work, and still the trees apparently were not suffering very severely. A tree badly attacked by the borer commences to look yellow, generally about the time the fruit commences to enlarge, and often after a hot spell of weather it begins to wilt; however, if only a portion of the bark is girdled, it may show no signs. To ascertain the presence of the borer, the soil must be removed, as it works invariably underground.

With the exceptions of two cherry trees, we found only peach root affected, but anything on this root is plainly liable to attack. It seems, however, that there is greatest danger of infection on lands of a heavy nature. In fact, in going over several acres of this character, we obtained mostly all of our specimens, while hardly any were found on sandy soil adjoining. In this respect our observations agreed with the experience of Mr. Leigh, who confidently asserted that these insects had been observed by him for ten years.

Whether the plum root is attacked or not, we have not been able to prove conclusively, as we saw but very few on plum-root trees in the immediate neighborhood; but there is strong probability that both plum and apricot are resistant. The matter requires thorough investigation and I intend to try the experiment of colonizing the borer on plum roots. The specimen I have collected shows the insects in their various stages. The grub or larva is pinkish when alive; the chrysalis is brown, and the cocoons spun of the castings and borings of the wood.

This species requires evidently a year for its full development, and as the moth appears in May and June, the egg must be laid at the time. These are laid just below the surface, and the reason that so few worms are found on sandy soil is probably because in ovipositing the female has to push the abdomen into the ground; when it finds that the soil falls in, its instinct leads it to avoid such places. Planting in sandy soil, or replacing the natural soil with a basin of fine sand, will probably prove a very good preventive of infection. The sand should be placed at least to the depth of four inches. A method recommended in the East for the peach-borer found there, is the wrapping of a stout piece of paper around the trunk to the depth of six inches, leaving two inches above the ground, this to be held in place by a collar of mortar. Gas lime, which has been recommended for this purpose, is too dangerous; while it might do no harm during the summer, it would invariably result in damage to the tree if thoroughly wetted, and the solution was percolating down the trunk. Indeed, I have already learned of damage from its use. In my recommendation of using gas lime for woolly aphid on the apple trees, I have invariably warned against putting it against the trunk. In this case, the material to be successfully used, must be placed against the

trunk. Air-slacked lime, however, may be used without any injury, but should be put on in the spring after the heavy rains are over, in the early part of April.

Whence Did this Insect Come?

It being a settled fact that this insect is new to science, having been named by Prof. Riley *Sannania pacifica*, we must look for its original food plants in this State. I have spent a little time looking over the creeks adjoining the infested district, and have failed to find any wild trees infested; but I shall continue the investigation further next spring, as it is of considerable importance to know the wild tree the borer inhabits. My conclusion is that it probably lives on one of our wild cherries (perhaps *Prunus demissa*), but owing, perhaps, to the fact that the soil generally is sandy along water-courses, and the trees of a kind are few and far between, the food for the borer has been so restricted that very little increase took place until orchard-planting commenced in the vicinity.

There is no question that the insect may be spread on nursery stock, the eggs being laid in the bark, and trees coming from suspected quarters should be thoroughly scrutinized and at least thoroughly disinfected by dipping in caustic solutions. So far I have only found the insect in the locality mentioned, 2½ miles southwest of San Jose; but being a native insect, we may look for it in all the orchards along water-courses in the coast valleys.

The mature insects of the California species are distinguished from the Eastern species by the absence of cross bands of the abdomen, which is of a black steel blue.

THE FIELD.

Wheat Facts and Figures.

NUMBER 4.

While the production of wheat has made rapid strides, the consumption also shows a remarkable increase. The latter not only comes from increasing population, but also from a larger individual requirement due to its cheapness, and also to its being served on the table in more different ways. In this country it is more difficult to arrive at the individual consumption than it is in the thickly populated countries of Europe where the system of compiling statistics is reduced to a science and its accuracy seldom proven wrong. With this as a starting-point to arrive at the average individual consumption, the writer will take England, France and Italy.

In England, the consumption of wheat averaged for the period 1876-77 to 1887-88—July 1st to July 1st of each fiscal year—338.4-10 pounds per head of the population. This figure naturally showed wide fluctuations, according to the crop in the United Kingdom; thus, in 1879-80, with a light crop and high prices, the consumption fell to 298.08 pounds per head, while in 1882-3 and 1883-4, seasons of large crops, it amounted to 393.72 pounds. To illustrate this to better advantage the following figures are given:

Year.	Population.	Consumption in Pounds.	Per Head
1885-6.....	36,580,000	12,112,840,000	331.2
1886-7.....	36,709,000	11,641,860,000	317.16
1887-8.....	37,091,000	12,660,444,000	342.00

In estimating on the probable wants of the United Kingdom there are three important factors that must be kept in view, viz., the home crop, the root crop and the meat supply, for the English are conceded to be great meat-eaters; but where correct information or statistics on these are not obtainable, it is hardly safe to estimate the consumption of wheat at 342 pounds to the head, but rather place it at about 340 pounds, or even less.

In France the consumption of wheat is much larger than in England, for the Frenchman is a proverbial bread-eater. On an average, it exceeds 432 pounds per head, and has reached as high as 446.4 pounds in 1885-6, 457.2 pounds in 1886-7, and 460.8 in 1887-8. The last three fiscal years show a steady increase in the consumption per head, independent of a greater requirement, owing to a growth in population.

The statistics of Italy are at fault regarding the consumption of wheat in that country, but, as near as it can be figured out, it is only about 290 pounds to the head, although some place it for the season of 1887-8 at 308 pounds, but then they did not deduct the requirements for seed, adding the latter in with the consumption. It is very generally conceded that the consumption of wheat in Italy is increasing, but not to the same extent as it is in England and France. This is probably due to the Italians being larger consumers of vegetables than either the French or English, and therefore their wants are not only more easily supplied, but also cheaper, which is quite a consideration.

Taking the countries England, France and Italy, and it is quite safe to base on their average consumption per head the average consumption of the civilized nations of the world, for France is the largest consumer per capita, Italy the smallest, and England a medium. Taking the average consumption per head, we have: England, 338.4-10 pounds; France, 433 pounds; Italy, 290—a total of 1061.4-10 pounds, or an average of 353.24-30 pounds per head. Take Italy, Germany and Russia, rye is largely grown and is used extensively as an article of

food, while in France, Spain and England its importance as an article of food is almost entirely ignored. In the United States, maize or corn takes the place of rye and reduces the general average consumption of wheat. But even with corn largely used as an article of food, yet the average consumption of wheat is placed at 355 pounds per head. There are some statisticians who place it at a higher average, but then the above is the generally accepted figure of the trade.

As the price of wheat has an important bearing on its consumption, it may not be amiss to give the following tables of prices per bushel of 60 pounds each compiled from official sources in this country, England and France (that of the United States is the export value at the port of New York):

Year.	U. S.	England.	France.
1870.....	\$1.28	\$1.42	\$1.39
1871.....	1.31	1.72	1.81
1872.....	1.47	1.73	1.66
1873.....	1.31	1.78	1.75
1874.....	1.42	1.69	1.65
1875.....	1.12	1.37	1.32
1876.....	1.24	1.40	1.40
1877.....	1.16	1.73	1.69
1878.....	1.33	1.41	1.67
1879.....	1.06	1.33	1.49
1880.....	1.24	1.35	1.66
1881.....	1.11	1.38	1.62
1882.....	1.15	1.37	1.44
1883.....	1.12	1.26	1.30
1884.....	1.06	1.08	1.21
1885.....	.86	1.00	1.14
1886.....	.87	.94	1.15
1887.....	.89	.99	....

It will be seen by the above that there has been a steady decline in values in France and the United States since 1880, and in England since 1881. In order to show this on a broader and plainer plane, the following prices per bushel since 1881 are given:

Year.	England.	France.	Germany.	Austria.	U. S.
1881.....	\$1.38	\$1.52	\$1.42	\$1.24	\$1.19
1882.....	1.37	1.46	1.32	1.01	.88
1883.....	1.26	1.50	1.21	1.06	.91
1884.....	1.08	1.21	1.05	.96	.64
1885.....	1.00	1.14	1.04	.82	.77
1886.....	.94	1.15	.98	.84	.68
1887.....	.99	....	1.07	....	.68

The price in the United States is the average received by the farmer, being on the same basis as are those of the other countries.

The above shows a decline from 1881 to 1886 of 42 per cent in the United States, 32 per cent in Austria, 31 in Germany, 24 in France, and nearly 32 in Great Britain. It is to be regretted that reliable data is not obtainable from Russia and India so as to extend the comparative prices, but sufficient is known to the trade to warrant the assertion that the decline in prices suffered by American farmers has been sharper and deeper than that of any other wheat-growing country. Indian farmers have been protected by the decline in silver, as to a certain extent have the Russian farmers. Farmers in France and Germany receive the highest prices, because neither country has a surplus and also both protect their farmers by custom duties. To the large surplus of wheat grown in this country is due the low prices here. Austria also has a surplus, while England has to import, but has no custom duties on wheat. Comparing the prices of protected Germany with free-trade England and the general average for the seven years does not show any decided difference, but between that of France and England it is quite marked.

In connection with the above and bearing directly on silver as an important factor in the world's wheat markets, and also throwing more light on "the why" England opposes remonetizing silver, the following is reproduced from a paper read by L. C. Probyn, at a late meeting in London of the British Association: Wheat is the article of Indian export which has been most generally referred to as having been stimulated by the fall in the gold price of silver. We have noticed the remarkable development which has taken place in this trade, checked only by occasional inferior harvests, and by the exhaustion of stores from which previous increases had been met. Other causes, however, have certainly contributed in a very important degree to this result. First of all, there is the immense railway development in India which has resulted in wheat districts, with considerable existing stocks in reserve, being opened up and connected with the ports of shipment. In October, 1878, the port of Kurachee was connected by railway direct with Lahore, the capital of the Punjab, a province with double the area under wheat of Great Britain; and in the same year the Rapor district of the Central Province was opened up by railway communication with Nagpore and Bombay. The Rajpootana and Malwa line was opened in January, 1881, and the Oudh and Rohilkund connection completed in June, 1883. In all, there are about three times as many miles of railway open in India now as there were in 1872. The result of this railway extension has been to level wheat prices all over India, and to lower them at the ports of shipment. Latterly, too, there have been on the whole good seasons. Then there is the reduction of sea freight, estimated by Mr. Comber for the last four or five years compared with 1873, at 8s. 3d. a quarter. Then there was the Indian export duty, coming to something over one rupee a quarter, which was taken off in the same year. But even with all these advantages, with the present price ruling in England, trade would not have been possible had not the fall in the gold price of silver taken place. It is contended by the gentleman to whose opinions I have referred that these low wheat prices are only the result of the appreciation of gold, and that the expansion of Indian wheat exports would have oc-

curred had there been no change in the relative value of silver. As, however, was pointed out by Mr. Balfour when examining a witness before the Gold and Silver Commission, a source of supply, though comparatively insignificant, may sometimes rule prices; and I venture to think that the fall of wheat prices in Europe is in part the result of the direct competition of Indian wheat. This competition was, indeed, rendered possible by the favorable circumstances which have been detailed; but it received a fresh stimulus from the fall in the gold value of silver, to whatever cause this fall was due—a stimulus resulting in increased competition and a further fall in the gold price of wheat. It is sometimes asserted that because the price of wheat has fallen more than silver, therefore the former is independent of the latter. This seems as illogical as to say that because one person unaided could not have done a certain task, therefore he could have had no part in doing it with the assistance of another.

THE DAIRY.

Cheese and Butter from the Same Milk.

The latest approved method of making butter and skim cheese in Oneida county, New York, is described by B. D. Gilbert, in the *American Cultivator*, as follows:

I propose to give a description of an establishment whose cheese has averaged the ruling price at Utica through the season, while the butter has sold at 19 to 25 cents. The Bagg Brothers of Holland Patent, Oneida county, N. Y., occupy an unpretentious building as a factory, but it contains all the needed appliances for the manufacture of butter and cheese. There are four vats of about 4500 pounds capacity each, heated by steam; gang presses, a large, square, revolving churn, a tank through which cold spring water flows, and in which the deep coolers of cream are set; and a large refrigerator storeroom where the butter is placed after packing, until the shipment is ready for market. In talking with these gentlemen they made the following statement concerning their method of making a skimmed cheese that stands in the front rank of this class of goods.

A Skimmed Cheese.

From May 1st to October 10th, the milk is delivered twice a day, and the same kind of cheese is made during all that time. We run four vats, holding 4500 pounds each. The night's milk is distributed in all the vats as evenly as possible, and cold water is run around them so that the temperature of the milk is reduced by morning to 60° to 65°. This milk is skimmed in the morning before any more milk is received. Morning's milk is delivered from 6 to 8:30 A. M., and is added directly to the skimmed milk in the vats. Thus only the cream that rises on half the milk during 12 hours of the night is taken out of the whole mess. We heat the milk up to 84° to set, then add rennet enough to have the curd ready to cut in about 40 minutes. We cut with perpendicular knife, both lengthwise and crosswise, and then with horizontal knife lengthwise, without any interval between the cuttings. We used to wait a short time between, but cannot see that it makes any difference in the quality of the cheese, and as it takes less time to go right on with the work, we generally do so. Then we let it stand until the whey becomes clear, from 5 to 15 minutes, and then begin to heat up the vat with steam. This takes about an hour and a quarter to a half before it reaches the desired limit of 96°, but if the vat is only half full we should heat about 2° more, as that amount of milk will not hold the heat so well. Then we stir the curd gently with our hands for about ten minutes. Then put in a rake and stir gently with that. The curd then lies in the whey until the proper amount of acidity is developed, which varies from half an hour to an hour, according to the weather and the condition of the milk. The acidity is determined by the hot-iron test, so that threads will string out about an inch in hot weather, but not so much in cooler weather. The whey is then drawn off and curds allowed to stand about 20 minutes, not to exceed that if there is acidity enough shown. The curd is cut half in two and folded back, and when the whey is nearly off we cut a channel down the middle, so that the whey will drain off entirely. Then the curd is again cut lengthwise on each side and folded back, making the strips narrower and the channel wider, and soon after it is turned completely over in order to aerate the under side. Then it is cut in strips, thrown into the curd sink, and from there put through the mill, one of the kind that tears but does not cut the curd. We do not salt until after grinding. We use 2½ pounds of salt to 1000 pounds of milk during warm weather. The salt is mixed with the curd by hand. The curd is then put to press, the pressure being applied gradually until it is as strong as we can get in the gang press. If the cheeses go to press at 1 or 2 o'clock they stay there until 7 or 8 o'clock the next morning. In hot weather we wash the cheese with a solution of potash, two pounds to four gallons of water. This gives a smoother face to the cheese, and they are not apt to mold. In summer-time we try

to keep the temperature of curing-room about 75°, while in spring and fall we heat it up to 80°. The cheese is shipped in about 20 days—the average, although a somewhat longer time for curing is allowed in the spring and fall.

The principal points of distinction between this process and that of making full cream cheese are as follows: We put the buttermilk back into the vats just before the rennet is added, not sooner, because it would sour the other milk and make it work too fast. We salt about one-quarter pound less, and do not heat as high, within about 2°. We also mix about a tablespoonful of saltpeter with the salt for a whole vat of milk. We think this prevents the cheese from going off in flavor, and has a tendency to make them "butter down" in the fingers and show the stock that is in them.

In the spring and fall a little more cream is taken from the milk, and we salt lighter and scald lighter than during the summer.

Butter-Making.

As I have already said, the butter of these creameries sells well, but not up to the mark of many fancy dairies. The cows are of mixed stock, such as may be found in any farmer's dairy, but there are two advantages which the butter would not have if made at home. Firstly, only the lightest and best part of the cream in the milk is used—that which rises in the first 12 hours. Secondly, the butter is made by an expert, in large quantities, and can therefore be relied on for uniformity in color and quality. The method is as follows:

After skimming, the cream is set in deep coolers, holding from 18 to 24 quarts. These are set in water, which in summer is kept at a temperature of 60°, and in cold weather is heated up to 75°, by means of steam introduced into the tank. This sours the cream in 24 hours, when it is put into a large square Blanchard revolving churn run by steam-power. In the summer the make ranges from 180 to 200 pounds per day. It is churned until the butter comes in granular form, then the churn is stopped. If not gathered enough, a portion of the buttermilk is drawn off, and the churn is made to revolve a few times more. When the buttermilk is all drawn off, enough cold water is thrown in to rinse the butter thoroughly. This is drawn off and a second rinsing is given to it with a larger amount of water. When the buttermilk has been thoroughly rinsed out, the butter is taken from the churn, weighed, placed on the worker, salted one ounce to the pound, and worked four or five times over, until the salt is well incorporated with it. It is then put into tubs, and in warm weather placed in a refrigerator until the next morning, when it is taken out and again worked over a few times, in order to make it even in color and in saltiness. Then it is packed in tubs holding about 56 pounds, and set away in the refrigerator until the next market day. The tubs are made of white ash and soaked in water about 24 hours before packing.

The heat of the water goes down during the night, so that the cream is churned at about 64°.

The coloring is put into the cream in the morning when it is first set in the coolers. The "standard" butter color is used. Of course in June less color is needed than in the early or late months. The "standard" color takes much less to produce the result than it would be necessary to use of annatto.

In hot weather it is preferable to have the temperature of cream as low as 56° for churning, but the butter will not come quite as quickly.

This is an outline of the methods in vogue in one of the most successful creameries in this part of the country. It is well to have some knowledge of the process by which a skimmed cheese is made that even the judgment of an expert finds it hard to detect.

LOOK OUT FOR YOUR CANARY BIRDS.—The *Sonora Independent* says: Mrs. Bernard Myers and Mrs. Geo. Mapes both had their singing canaries killed by butcher-birds a few days ago. We understand that Mrs. Myers put "rough-on-rats" on the body of the canary (the head alone being gone) and left it on the cage. The butcher-bird came back, ate it, and died. The way Mrs. Mapes' bird was killed, as witnessed from Dr. Eichelroth's back garden, was this: The butcher-bird swooped down on the cage (which was hanging on the piazza upstairs), screaming and fluttering its wings. The terrified canary stuck its head through the wires, trying to escape, and was instantly decapitated. It is said that the butcher only eats the heads, but the reason for this is that he cannot pull the body through the bars.

GRASSES IN SPONGES.—A very pretty foliage decoration for rooms or conservatories can be made of a white sponge. Fill the sponge full of rice, canary, hemp, grass or other seeds. Then place it in a shallow fancy-glass dish. The prettier the dish is, of course, the prettier the decoration will be. Pour water in the dish; the sponge will absorb this. Keep enough water to always have the sponge moist. In a short time the seeds will sprout and make the sponge look very pretty. The dish can then be placed on a table, or the sponge can be suspended without the dish in some position where it is exposed to the sunlight. It must be well watered, so that the sponge is always moist, and it will then exhibit a mass of delicate green foliage.—*N. Y. Mail & Express*.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Tulare Grange.

MESSRS. EDITORS:—I am very anxious that Tulare Grange shall be kept before the people, and that the name it has obtained through the instrumentality of the State Grange and its own honest, earnest earnings, shall be sustained and animated by a living spirit of growth and greatness.

We have commenced a new year with a new set of officers who were installed yesterday by Past Master A. J. Woods. At the close of the ceremony, the retiring Master, Capt. A. P. Merritt, who is now our Gate-keeper, was presented by the Grange with a watch and chain as a visible expression of its feelings and appreciation of his faithful services as Master of the Grange, from the dark days of its reurrection to its present recognized position, and as a recognition also of his earnest labors as a true Patron of Husbandry, and in which he has been so nobly supported by his faithful partner, who has obtained a high position in the hearts of her brothers and sisters of Tulare Grange. Bro. Woodman from Michigan was present, who told us he had never made a speech in his life. But if this effort was his maiden speech, I am sorry that it was not delivered 20 years ago, so that we now might have had a first-class orator in our midst. He pleased us with his flattering remarks, and hope that we will merit all he said of us. We also received Bro. Shoemaker of Pennsylvania by demit, who told us of the political power the Grangers had in his State, as Bro. Woodman did of the Grangers in Michigan.

We can hardly listen to the tales told of political power wielded by Granges east of the Rockies and sit easily in our seats. With so much at stake the Grange should be felt to some purpose at Sacramento. With an undeveloped country capable of sustaining in happy homes 30,000,000 of people, half of the present population of the United States, and having in it only a paltry million and a half of people, the whole country and its representatives should not rest night nor day till the means of its being so shall be inaugurated, which are a perfect system of irrigation, more and cheaper facilities for transportation, the breaking up of large ownership of land, a united Grange multiplied by 100, and other things which I cannot now think of.

As an entering wedge in this direction, Tulare Grange will at its next meeting discuss the adoption of resolutions prepared by an appointed committee, which I have already written you about.

They are that part of the surplus at Washington which so perplexes politicians be used in the development of this country, first, by storage of water in the Sierras; secondly, by a natural and just distribution of the water by canals and ditches, and thirdly, by the construction of a canal draining Tulare lake and connecting it with deep water on the San Joaquin river to render the transportation of produce easier and cheaper.

In this it is possible there may be something Quixotic—something more than can be accomplished with laws and constitutional requirements, standing Apollon-like right square in the way. All this, however, Tulare Grange is going to inquire into, and learn what the possibilities are, and press the question upon the Granges at large and from them to the sovereign people.

We will require to know whether those funds at Washington can be reached by the people for the general good as easily as they can by bankers for their private good; if there is a Hell-gate standing in the way, whether the action of the people through its representatives could not blow it up. The politically wise in the Grange shake their heads and say it cannot be done, and if it could our representation at Washington is so small that the States east of the Rockies would get away with us every time in the general scramble for the released surplus which would ensue.

Have our civilization and sense of justice advanced no further than this? Have we not risen above the petty greed exhibited by children scrambling for pennies thrown out from a window for fun? Sometimes it seems so. Yet I believe better of the great American people. They are long-suffering and indulgent, but when these things cease to be virtues, there will be a rattling among the dry bones; for in spite of inconsistencies and blunders, the heart of the people is in the right place.

You may look for a report of the discussion in prospect, and I hope other Grangers and other writers will perceive its importance and make it a matter of general discussion and co-operation. The subject of co-operation in farming interests is hanging on the hook in our Grange and will no doubt materialize itself in due time, which will be when dry years have not drained our purses and when we understand the matter better. It is really encouraging to note the increase of interest in co-operative subjects in Granges and Grange papers, and especially in insurance.

The average citizen hates taxes, whether local, State or national, and yet more money is paid in insurance than in all other taxes combined. If fire insurance could be arranged on

a fraternal basis, as life insurance is by the A. O. U. W., and payment only made when actual fires take place, we would pay less cash and have more justice. Or, if in a city, the municipal authorities insured all assessed property other than realty, there need be no other tax levied for the support of the city. Of course these are all open questions, very crudely presented, but I am convinced that they contain matter worthy of thought and action.

If the Grange is to be a success in this State, it must be by concentrated action on a given line which will have an evident bearing on personal interest. It will never be a success if confined to social gatherings, ritualistic observances and the wasted forces of inconsequential eloquence, though all these things are good in their place. All of which is fully recognized by Tulare Grange and J. W. MACKIE.

Tulare, Jan. 6, 1889.

Eden and Temescal Grange Meeting.

Joint Installation, Etc

HAYWARDS, Dec. 22, 1888.

Sister Nellie G. Babcock, Secretary—Eden Grange instructs me to send invitations to Temescal Grange to join them in installing officers on the second Saturday of January, at 10 A. M. sharp. Also if your Grange accept the invitation if you could make it convenient to be with us as early as 10 A. M., to send us such notice, as it is their desire to make preparation to install the officers in the morning in order to have more time for social intercourse and literary entertainment after dinner. (Our committee, Sisters Mary Anway, R. Dennis, H. Gading, ask assistance on the literary program from your Grange.) Hoping to extend the old-time greeting to each member of Temescal Grange, we are fraternally yours, JOSIE SHARAF, Sec'y Eden Grange.

By vote of Temescal Grange on Saturday evening last, the above invitation was heartily and unanimously accepted, and the members expect to make a full turnout, and, as usual, have a most enjoyable time. Worthy Master Overhiser and Past Master Coulter (with their Matrons, of course) have been specially invited through Worthy Master Blackwood, and can be counted upon for some good Grange talk. Past Masters Flint, Webster, and representatives and earnest Patrons from different parts of the field will certainly be present. So it will be good for all Patrons who can attend to be there, and we would bespeak a large Grange gathering. The Grange meets at 10 A. M. for installation. After Harvest Feast, speaking by veteran Patrons and others will be accompanied by literary and musical exercises by the younger folks.

At the last meeting of Temescal Grange Bro. Spencer, a good representative of young American Grangers, was present from Potter Valley, Mendocino county. He represents his Grange as holding good to the faith. With the improvement of that section of the State, they are hopeful of an increase of members and success.

His visit brought vividly to mind our old and esteemed brother, A. O. Carpenter, formerly of Ukiah Grange. He fought side by side with John Brown in Kansas, is a good soldier in the battle for human rights, and a man of true Grange grit. Also comes fresh to mind his sainted mother, Mrs. I. C. H. Nichols, who, as the first lady editor in Vermont, if not in the United States, made a strong fight for the inalienable rights of her sex by her able writings.

The Constitution of Kansas we believe is admitted to give the most fair and full protection to women in their property, political and educational rights, of any State. Mrs. Nichols was the leading champion and representative of the women of Kansas in their endeavors to secure the good and just privileges finally conceded to them in that Constitution, and it was largely, if we may not say mainly, through Mrs. Nichols' long and faithful labors, keen foresight, unimpeachable intentions and worthy character that the particular features were embodied in the Kansas Constitution which are to-day so satisfactory and beneficial to woman and her cause.

Bro. Wm. Kilbourne, who is the Past Master and the long-time faithful Secretary of Potter Valley Grange, was well known to us as a miner at La Porte, Plumas county, over 25 years ago. We admire his zeal in the cause, and rejoice in the maintenance of the Grange, located in one of our healthiest and prospectively (to say the least) prosperous counties.

Sister Chatterton, residing with Sister Babcock, who recently returned from a long visit to her native home, in Maine, was present, and gave some interesting remarks, saying that the Patrons in Maine are wide-awake, zealous and cautious in the work. They enjoy the social features of the Order there, have a good opinion of California, and were anxious to know how it is that our isolated Granges succeed in keeping up so much life and interest as they infer we enjoy through reports that they have received of our transactions.

The question of the Australian system of voting was mentioned in Temescal Grange as one of importance to be discussed early, in connection with the present session of the Legislature. We hope this subject will be well considered by all Granges in the State, and every effort possible made to secure legislation at this present session for such election laws as will prevent election frauds and abuses which all tax-payers so sensibly feel and all good citizens abhor.

The next meeting of Temescal Grange occurs on Saturday afternoon at 2 o'clock, Jan. 19th, to which all sojourning Patrons are invited.

The Value of a Farmer.

MESSRS. EDITORS:—The Salinas Index lately published a list of the Government offices that will probably be vacated at the next change of national administration. Among them were places suitable for mechanics at pay ranging from \$3.50 to \$7 a day, clerkships at \$1500 to \$2000 or upward per annum, and for the Indian reservations a few "farmers" at \$720 to \$900 per annum.

What a long-suffering animal this "farmer" is! Why is he to be regarded century after century as the drudge of the community, with double the hours of work and half the pay?

Hear how it was in Sir Thomas More's time (by the by, I wonder the bluff King Hal left that man's head so long on his shoulders)!

"I would gladly hear any man compare the justice that is among the Utopians with that of all other nations, among whom, may I perish if I see anything that looks either like justice or equity; for what justice is there in this, that a nobleman, a goldsmith, a banker, or any other man, that either does nothing at all, or at best is employed in things that are of no use to the public, should live in great luxury and splendor upon what is so ill-acquired, and a mean man, a carter, a smith or a plowman, that works harder even than the beasts themselves, and is employed in labors so necessary that no commonwealth could hold out a year without them, can only earn so poor a livelihood, and must lead so miserable a life that the condition of the beasts is much better than theirs?" etc. "Is not that government both unjust and ungrateful that is so prodigal of its favors to those that are called gentlemen, etc., and on the other hand takes no care of those of a meaner sort, such as plowmen, colliers and smiths, without whom it could not subsist?"

This, three centuries ago, under an imperious monarch, is what history has taught us to expect. But on what principle, in a government of the people, by the people and for the people, is a clerk paid twice as much as a farmer? It takes more brains to make an average farmer than an average clerk; it takes more grit, more mechanical skill and more general business capacity. Having had 6½ years' experience as a clerk prior to almost a quarter century's farming, and leaving my clerkship with the written regrets of the chairman of the London bankers, I know what I'm talking about. Not being an office-seeker, I have no personal interest in the matter, but I think it high time farmers sought and obtained due consideration at the hands of society and government, and no longer permitted themselves to be regarded and paid as the drudgers of their fellows. Perhaps some brother farmer can explain, in your columns, the justice of paying a "farmer" one half of the salary paid to a clerk. It seems to me that if only out of respect to our first and best President, farmer Washington, a higher esteem is due our agriculturists.

EDWARD BERWICK.

Carmel Valley, Jan. 6, 1889.

Resolutions of Respect.

The Patrons of Tulare Grange desire to express their sincere sorrow in common with other Granges in the loss which the Order has sustained in the death of our very much esteemed brother, Hon. A. L. Chandler, but feel the poverty of language in adequately expressing their feelings in the following resolutions:

Resolved, That Tulare Grange recognized in Bro. A. L. Chandler a moral Granger, citizen, and counselor in every walk of life, being always ready to defend the weak, to maintain the rights of the wronged, and serve at all times the cause of justice and charity.

Resolved, That we sympathize most sincerely with his afflicted wife and family in the loss which they must feel more keenly than us all.

Resolved, That his example will be constantly before us in emulating his generous and resolute conduct; that we will keep fresh the memory of the honest intelligence of his kindly countenance while with us here, in attendance at the State Grange.

Resolved, That these resolutions be entered on the minutes of the Grange; that a copy be forwarded to Sister Chandler, and to the *Patron* and *RURAL PRESS* for publication.

Adopted by Tulare Grange, No. 198, Jan. 5, 1889.

DURING the year ending Sept. 30, 1888, there were 197 new Granges organized in the United States, as follows: New York 27; Pennsylvania, 26; Massachusetts, 25; Oregon, 16; Connecticut, 15; Rhode Island, 13; New Hampshire, 11; Alabama, 10; Colorado, 9; North Carolina, 8; Maine and Michigan, 7 each; Nebraska, 6; Illinois, 4; South Carolina, 3; Maryland and Ohio, 2 each; Arkansas, Dakota, Delaware, Indiana, Missouri and Wisconsin, 1 each.

THE National Grange still insists and claims that the head of the Agricultural Department at Washington should be a member of the President's Cabinet.

NEWCASTLE GRANGE will install its officers on the 19th inst. All Patrons are invited to be present. A class of four will be instructed in the Fourth Degree.

Grange Elections.

FLORIN.—Wm. Johnston, M.; M. A. Casey, O.; Lillie Jones, L.; John Reese, S.; Jesse Casey, A. S.; Ella Dresser, C.; L. H. Fassett, Sec.; C. Towle, T.; D. Reese, G. K.; Mary Donovan, P.; Lillie Casey, F.; Mamie Brown, Ceres; Carrie Neehie, L. A. S.

FRANKLIN.—Wm. Johnston, M.; J. B. Bradford, O.; Mrs. J. W. Moore, L.; W. A. Johnston, S.; Mrs. I. F. Freeman, C.; Lake Freeman, A. S.; I. F. Freeman, T.; C. P. Freeman, Sec.; P. R. Beckley, G. K.; Mrs. S. G. Bradford, P.; Mrs. C. P. Freeman, F.; W. M. Johnston, Ceres; Belle Johnston, L. A. S.; M. W. Johnston, Organist.

NEWCASTLE.—J. L. Robertson, M.; A. P. Hall, O.; S. A. Wood, L.; R. M. Nixon, S.; F. B. Fitch, A. S.; Sister H. A. Blanchard, C.; Wm. Barter, T.; Sister A. P. Hall, Sec.; J. B. Evans, G. K.; Sister A. S. Robertson, Ceres; Sister Lena Jorey, P.; Sister Kate King, F.; Sister Belle Boggs, L. A. S.; A. P. Hall, Trustee.

SACRAMENTO COUNTY POMONA.—Morris Toomy, M.; H. W. Johnson, O.; Sister A. M. Jackman, L.; C. E. Mack, S.; D. Reese, A. S.; Geo. Wilson, C.; A. M. Plummer, T.; Sister D. D. Hull, Sec.; Geo. W. Hack, G. K.; Sister Belle Johnston, P.; Sister Etta Plummer, F.; Sister Morris Toomy, Ceres; Sister Hill, L. A. S.

TULARE.—J. M. Moore, M.; J. W. Mackie, O.; J. N. Balch, S.; Jessie Talbot, A. S.; L. B. Hawkins, L.; Sister M. Premo, C.; Bro. M. Premo, T.; D. O. Harrelson, Sec.; A. P. Merritt, G. K.; Sister M. A. Truscott, Ceres; Elizabeth Maples, P.; Berthaingham, F.; Edith Maples, L. A. S.

WALNUT CREEK.—C. Sharp, M.; J. Foster, O.; N. Jones, L.; J. W. Jones, S.; T. Jenkins, A. S.; J. Larkey, T.; Miss M. Baker, Sec.; C. S. Whitcomb, C.; J. Baker, G. K.; Miss E. Weedles, P.; Miss L. Sharp, F.; Miss E. Kusch, Ceres; Mrs. T. Jenkins, L. A. S.

WATSONVILLE.—Mrs. E. Z. Roache, M.; Mrs. N. A. Uren, O.; A. Cox, S.; N. A. Uren, A. S.; D. Tuttle, C.; G. W. Kidder, T.; Mrs. S. J. Kidder, Sec.; Mrs. M. E. Tuttle, G. K.; Mrs. P. Cox, P.; Mrs. M. Tuttle, F.; Mrs. A. Cox, Ceres; Mrs. P. Haver, L. A. S.; Miss Josie Roache, Organist; N. A. Uren, Trustee.

Installations.

Eden and Temescal.....	January 12
Elkton.....	January 12
Magnolia.....	January 12
Newcastle.....	January 19
North Butte.....	January 12
Sacramento and Sacramento Pomona.....	January 12
San Joaquin County Pomona.....	February 28
Watsonville.....	February 16

NOTE.—The Secretaries of Granges are requested to forward reports of all election and other matters of interest relating to their Granges and the Order.

Sacramento County Pomona Grange.

MESSRS. EDITORS:—The Pomona Grange meeting of the 29th ult. had rather a slim attendance, owing to the condition of the roads. It was called to order about 2 P. M. The election of officers was a prominent matter for the day, and occupied nearly all the time, so that many retired before Grange closed. But little other business was reached. Bro. McConnell, however, announced the meeting of the Fire Insurance Committee; also made some very appropriate remarks explanatory of the condition of the *Patron*, and in regard to the disposition of it.

We intended to bring the matter of election reform before the Grange, but time did not admit of anything further. There is likely to be agitation in that direction during the coming session of our Legislature, as well as toward reform and improvement in every department of business, science, art and manufacture.

G. W.

San Jose Grange.

MESSRS. EDITORS:—Nature has put on her spring clothes to-day, and our venerable friend, "Old Sol," is unbending himself. If it wasn't for the almanac one would hardly realize that it is the midwinter month. We are impressed with the thought that our first meeting in the new year opened under favorable auspices and bright omens, for it was installation day and every officer-elect had interest enough to be present and be installed. Bro. Wingate officiated, assisted by Bro. Gilmore.

After installation, Bro. Pomeroy, the retiring Master, made some farewell remarks, and then the new officers severally responded to calls.

So now the good old Grange bark has started out on the sea of progression, the broad pennant at the main with "Excelsior" inscribed thereon. Fraternally yours, San Jose, Jan. 5. OFA.

A Flourishing Bank.

The annual meeting of the stockholders of the Grangers' Bank of California was held on last Tuesday, at which 8865 shares out of 10,000 were represented. The usual annual dividend of \$4 per share, making the fourteenth since its organization, was declared, amounting to \$42,000, besides which the sum of \$10,000 was carried to the surplus fund. Owing to the steady growth of the business of the bank, the directors by vote resolved to levy another installment, being the seventh, of \$10 per share, so as to increase its working capital. This last levy will make, when paid up, 70 per cent on the authorized capital of \$1,000,000. Since its organization nearly 15 years ago, only six installments, the last being in 1884, have been levied, aggregating the sum of \$600,000, while during the same time there has been disbursed to stockholders in dividends \$588,000. This is a capital showing and speaks volumes for the superior manner in which the affairs of the institution are conducted. This is the more conclusively shown in the usual annual dividend being declared this year in the face of unfavorable crop weather in several sections of the State.

That the stockholders repose the utmost confidence in the management of the bank was manifested by their unanimously re-electing the same Board of Directors, manager and officers, as follows:

Directors—I. C. Steele, San Mateo county; T. E. Tynan, Stanislaus county; Daniel Meyer, San Francisco; H. M. LaRue, Yolo county; C. J. Cressey, Merced county; Seneca Ewer, Napa county; Thos. McConnell, Sacramento county; John H. Gardiner, Solano county; Uriah Wood, Santa Clara county; A. D. Logan, Colusa county; H. J. Lewelling, Napa county. Officers—A. D. Logan, president; I. C. Steele, vice-president; Albert Montpellier, cashier and manager; Frank McMullen, secretary; Pillsbury & Bland ng, attorneys.

TALENT RECOGNIZED.—Sister E. Z. Roache, who served the State Grange so ably and gracefully as Pomona, will be installed Master of Watsonville Grange February 16. She ought to be grandly supported in her duties. We shall look confidently for an excellent report from Watsonville at Sacramento.

ROSEVILLE GRANGE officers were installed on the 5th inst. by Worthy Master Wm. L. Overhiser, assisted by Worthy Lecturer Daniel Flint. The Grange meets the first and third Saturdays of each month, and starts out with renewed vigor after the visit of the above-mentioned State officers.

A RESOLUTION adopted by the National Grange declared that body as utterly opposed to allowing aliens to acquire title to the soil of the United States, and urged upon Congress the enactment of stringent legislation of a prohibitory character.

TULARE GRANGE is in good working order and every member is taking hold with a will, writes Bro. D. O. Harrelson. He thinks before the summer is over the Grange will force the merchants of Tulare to accept reasonable profits on their goods.

WATSONVILLE GRANGE will install its officers February 16th. All members are requested to be present. A literary program will be prepared for the occasion.

SACRAMENTO COUNTY POMONA GRANGE will install its officers to-day, in conjunction with the installation of Sacramento Grange.

Placer's Own Display.

Messrs. Jones and Parker, lately commissioned by the Placer Board of Trade to make a showing in this city of that county's products, are just opening a "free citrus exhibit" in the new Starr King building.

The great show-window at No. 123 Geary street has been turned into a pillared citrus temple, within which are displayed on inclined planes a thousand of Penryn's and Newcastle's choicest oranges, while the foreground is filled with terra-cotta urns and vases (from Gladding & McBean's pottery at Lincoln) heaped high with splendid apples and Japanese persimmons. Strewed between are boxes of their finest figs, nuts and raisins, and the whole output is tastefully bedecked with sprays of greenery and bunches of crimson berries. Even in its incompleteness, the show is charming and must do much toward enhancing the fame of the already famous foothills of the Sierras.

EXORBITANT WOOD FREIGHTS.—Boulder Creek people complain that the S. P. Coast R. R. has, since its purchase by the Southern Pacific, raised freight rates on wood so high that it is impossible to ship it to San Jose with profit, and they say they will have to abandon the business.

A FAIR NEXT MONTH.—The Horticultural Hall Association at San Jose has decided to hold a midwinter fair, beginning February 11th and ending on the 16th.

The Legislature of 1889

Convened at Sacramento on Monday, 7th instant. The Senate was called to order by the president pro tem., S. M. White, of Los Angeles, who delivered an address eulogizing the late Gov. Bartlett and Senator Chandler. Mr. White was subsequently elected permanent President of the Senate, and Robert Howe of Sonoma Speaker of the Assembly, both being Democrats. Following are the Senatorial and Assembly districts and the counties constituting them, with the P. O. addresses of the members:

THE SENATE.		
DIST.—NAME.	COUNTIES.	POST OFFICE.
1—Frank McGowan, R.	Humboldt, Del Norte.	Eureka
2—J. M. Briceland, D.	Trinity, Siskiyou, Shasta, Shasta	
3—M. H. Meade, D.	Modoc, Plumas, Lassen, Sierra	Logansville
4—A. F. Jones, D.	Butte	Oroville
5—E. M. Preston, R.	Nevada	Nevada City
6—A. Yell, D.	Mendocino, Lake	Ukiah
7—Thomas Fraser, R.	Placer, El Dorado.	Placerville
8—John Boggs, D.	Tehama, Colusa.	Colusa
9—F. S. Sprague, R.	Yolo, Napa.	Woodland
10—E. C. Hinchaw, D.	Sonoma.	Bloomfield
11—G. J. Campbell, R.	Sonoma.	Vallejo
12—F. H. Greely, R.	Yuba, Sutter.	Marysville
13—F. R. Dray, R.	Sacramento	Sacramento
14—A. Caminetti, D.	Amador, Calaveras.	Jackson
15—F. C. DeLong, R.	Marin, Contra Costa.	Novato
16—F. J. Moffit, D.	Alameda.	Oakland
17—W. F. Dargie, R.	Alameda.	Oakland
18—M. W. Dix, D.	Alameda.	Herricksburg
19—J. W. Welch, D.	San Francisco.	670 Harrison
20—T. J. Pinder, D.	San Francisco.	321 Broadway
21—W. O. Banks, R.	S. Francisco, 1419 1/2	Washington
22—J. N. E. Wilson, R.	San Francisco.	1812 Pacific
23—W. H. William, D.	San Francisco.	115 Fifth
24—P. J. Murphy, D.	San Francisco.	29 Russ
25—J. E. Britt, D.	San Francisco.	493 Eighth
26—T. H. McDonald, D.	San Francisco.	State Pig Office
27—John E. Hamill, D.	San Francisco, Stevenson Bld'g	
28—J. R. Spellacy, D.	San Francisco.	2529 Bryant
29—B. F. Langford, D.	San Joaquin.	Lodi
30—A. J. Meany, D.	Merced, Stanislaus, Tuolumne	Merced
31—A. W. Crandall, R.	Santa Clara.	San Jose
32—E. B. Conklin, R.	Santa Clara.	Santa Clara
33—Joseph D. Byrnes, R.	San Mateo, Santa Cruz, S. Mateo	
34—Geo. C. Goucher, D.	Mariposa, Fresno, Alpine, Mono	Fresno
35—Thomas Flint, Jr., R.	San Benito, Monterey, Hollister	
36—John Roth, D.	Tulare, Inyo, Kern, Woodville	
37—E. H. Heacock, R.	S. L. Obispo, S. Barbara, Ventura	Santa Barbara
38—S. M. White, D.	Los Angeles.	Los Angeles
39—J. E. McComas, R.	Los Angeles.	Pomona
40—W. W. Bowers, R.	S. Diego, S. Bernardino, S. Diego	

THE ASSEMBLY.		
1—John McVay, D.	Del Norte, Siskiyou, Crescent City	
2—J. G. Murray, R.	Humboldt.	Eureka
3—G. Williams, R.	Humboldt.	Ferndale
4—T. W. H. Shanahan, D.	Shasta, Trinity.	Anderson
5—James J. Reavis, D.	Modoc, Lassen.	Bieber
6—H. K. Turner, R.	Plumas, Sierra.	Sattley
7—W. P. Matthews, D.	Tehama.	Tehama
8—C. H. Porter, R.	Butte.	Beggs
9—L. L. Burwell, D.	Butte.	Oroville
10—J. C. Campbell, R.	Colusa.	Colusa
11—J. H. Seawell, D.	Mendocino.	Ukiah
12—C. M. Crawford, D.	Lake.	Upper Lake
13—D. A. Ostrom, D.	Sutter, Yuba.	Wheatland
14—Josiah Sims, R.	Nevada.	Nevada City
15—J. I. Sykes, R.	Nevada.	Grass Valley
16—John Davis, R.	Placer.	Auburn
17—Henry Mahler, D.	El Dorado.	Coloma
18—W. M. Petrie, R.	Sacramento.	Sacramento
19—E. C. Hart, R.	Sacramento.	Sacramento
20—L. H. Fasset, R.	Sacramento.	Florin
21—L. B. Adams, D.	Yolo.	Woodland
22—F. L. Coombs, R.	Napa.	Napa
23—F. B. Mulgrew, D.	Sonoma.	Healdsburg
24—J. W. Ragdale, R.	Sonoma.	Santa Rosa
25—Robert Howe, D.	Sonoma.	Sonoma
26—J. A. Mullaney, D.	Solano.	Benicia
27—J. F. Brown, R.	Solano.	Binghampton
28—J. W. Atherton, R.	Marin.	Novato
29—Thomas Mulvey, D.	San Francisco.	320 Beale
30—J. D. Long, D.	San Francisco.	16 Hubbard
31—T. J. Brannan, D.	San Fran.	International Hotel
32—John Staud, D.	San Francisco.	815 Pacific
33—W. E. Dinan, D.	San Francisco.	5 Jane Place
34—E. J. Reynolds, D.	San Francisco.	1315 Jackson
35—H. H. Dobbin, D.	San Francisco.	125 Silver
36—C. H. Kiernan, D.	San Francisco.	836 Mission
37—Thos. Seary, D.	San Francisco.	432 Clementina
38—D. S. Regan, D.	San Francisco.	215 Seventh
39—John McCarthy, D.	San Francisco.	329 Golden Gate
40—E. Murray, D.	San Francisco.	10 Col. Square
41—H. C. Dibble, R.	San Francisco.	Nevada Block
42—E. S. Salomon, R.	San Francisco, Stevenson Bld'g	
43—L. L. Ewing, R.	San Fran.	Fourth & Townsend
44—H. M. Black, D.	San Francisco.	598 Mission
45—H. M. Brickwedel, R.	San Fran.	Fourth & Townsend
46—James Reavy, D.	San Francisco.	13 1/2 Freelon
47—G. W. Burnett, D.	San Francisco.	616 Shotwell
48—T. C. Maher, R.	S. Francisco, 637 Twenty-third	
49—L. J. Franks, D.	San Mateo.	Redwood City
50—James A. Hall, D.	Santa Cruz.	Watsonville
51—Joseph McKeown, R.	Alameda.	Alvarado
52—Wm. Simpson, R.	Alameda.	Alameda
53—M. D. Hyde, R.	Alameda.	Oakland
54—E. S. Culver, R.	Alameda.	Oakland
55—M. C. Chapman, R.	Alameda.	Oakland
56—C. O. Alexander, R.	Alameda.	Oakland
57—Henry Hook, R.	Contra Costa.	Pacheco
58—R. S. Johnson, R.	San Joaquin.	Stockton
59—John McMillin, D.	San Joaquin.	LaPorte
60—C. T. LaGrave, D.	Amador.	One
61—John Gardner, R.	Calaveras.	Angels Camp
62—L. R. Tullock, D.	Tuolumne.	Sonora
63—Philo Hersey, R.	Santa Clara.	San Jose
64—James R. Lowe, R.	Santa Clara.	San Jose
65—L. A. Whitehurst, D.	Santa Clara.	Gilroy
66—V. E. Bangs, D.	Stanislaus.	Modesto
67—W. M. Rundell, D.	Merced, Mariposa.	Hornitos
68—E. C. Tully, D.	San Benito.	Bitterwater
69—Thos. Renison, D.	Monterey.	Gonzales
70—E. H. Tucker, D.	Fresno.	Selma
71—G. Stockton Berry, D.	Tulare.	Visalia
72—Cyrus Coleman, R.	Inyo, Alpine, Mono, Markleville	
73—D. W. James, D.	San Luis Obispo.	Paso Robles
74—A. A. Storke, D.	Santa Barbara.	Santa Barbara
75—Geo. W. Wear, D.	Kern, Ventura.	Bakersfield
76—J. R. Brierly, R.	Los Angeles.	San Pedro
77—J. M. Dameron, R.	Los Angeles.	Los Angeles
78—E. E. Edwards, R.	Los Angeles.	Santa Ana
79—W. Holmes, R.	San Bernardino.	Riverside
80—N. A. Young, R.	San Diego.	San Diego

SENATE.	
Democrats	22
Republicans	18
Democratic majority	4
ASSEMBLY.	
Democrats	42
Republicans	38
Democratic majority	4
J. C. STEELE.	
Democrats	64
Republicans	56
Democratic majority on joint ballot.	8

California State Veterinary Association.

The first annual meeting of the association was held in the office of the Breeder and Sportsman on Thursday, the 13th December.

The president, Dr. Thos. Bowhill of San Francisco, was in the chair. There were present Drs. Thos. Maclay of Petaluma, A. M. McCollum of Sacramento, C. B. Orris of Stockton, C. Masero of San Francisco, H. A. Spencer of San Jose, F. A. Nief of San Francisco, W. H. Woodruff of San Francisco, I. P. Kleach of Santa Rosa, P. P. Parent of Fresno, and W. C. D. Morrison of Los Angeles.

The president then called upon Dr. Kleach to read his paper on "General Lymphangitis." A very animated discussion followed in which most of the members present took part.

The following members were then elected officers for the ensuing year: Dr. Thos. Maclay of Petaluma, president; Dr. W. C. D. Morrison of Los Angeles, vice-president; Dr. A. M. McCollum of Sacramento, secretary; and Dr. W. H. Woodruff of San Francisco, treasurer.

Dr. H. A. Spencer of San Jose then exhibited to the association a model of a new operating table. The table in question can be placed in a vertical position so that the animal to be operated upon, while standing erect, can be secured so firmly to the table that it is impossible for the animal to free itself. A crank is now lowered which brings the table and, of course, the animal, to a horizontal position.

The advantages of such a table are obvious. They may be summed up as follows: Avoidance of the dangers attending the ordinary system of throwing horses down; allowing the horse to get upon its feet again, easily and without danger; perfect safety of the operator, who can operate easily and comfortably; assistants are dispensed with; saving of time for the operator; economy in space and no expense for litter; greater cleanliness.

A vote of thanks was accorded Dr. Spencer for exhibiting the model.

A motion was then made that the association meet only three times per year instead of quarterly. The motion was lost.

Drs. Bowhill, McCollum and Kleach were appointed a committee to arrange for the incorporation of the association, and also to draft a bill, to be presented to the Legislature, providing against the practice of veterinary medicine and surgery by incompetent quacks. Drs. Maclay, Bowhill and Masero were appointed a Board of Examiners for the coming year. Proposals for membership were received from Dr. Egan, San Francisco; Dr. F. Cowper, Los Angeles; Dr. I. Oliver, Los Angeles; and Dr. Wm. Rowland, Pasadena.

Dr. Bowhill promised to prepare a paper, which he would read at the next meeting.

The association then adjourned to meet again in San Francisco, on the second Wednesday in March, 1889.

A Cordial Response.

In our statement concerning the close of the last volume of the RURAL we appealed to our readers for their kind help in extending the circulation and influence of our journal. The following cordial response comes from a man widely known and universally esteemed whose indorsement any one might well be proud of:

"Give us your kind words, kind friends, and we shall strive each year to better deserve them."—PACIFIC RURAL PRESS. The first time I saw the PACIFIC RURAL PRESS, I subscribed for it, and from that time to the present it has been a weekly visitor in my family, welcomed by every member as an able, clean production, containing valuable information in agriculture and all that is best in farm life. Such has been our appreciation of it, that my wife and myself have often selected it as a present for some dear friend, thinking it a fit expression of sincere regard; and when I read the above quotation in the closing number of 1888, pleasant recollections arose with a new meaning. Sympathy always exists in the hearts of true friends, but why not express it in words, when it is such a comfort to the weary worker in the cause of human progress?

Well do I remember the pleasure and profit derived from the RURAL PRESS when its editors and publishers were strangers to me and our first meeting in the Grange, and the fraternal relations there established with increasing confidence all along the intervening years. Not that we always see from the same standpoint (that would destroy individuality), but from evident integrity and the recognition of the right of individual judgment. The RURAL PRESS has ever cultivated the best qualities in human nature, and its freedom from egotism is a perfect illustration of the modesty of its editors.

It rests its facts and principles on intrinsic merit and invites candid criticism. In a word, it is a farmers' paper, and deserves a hearty welcome in every farmer's family in the land. Go on, worthy brothers; the PACIFIC RURAL PRESS is appreciated, whether the outward expression reaches you or not.

The reward of merit is always in store for noble, generous effort.

AN ORCHARD COMPANY INCORPORATES.—The Tehama Fruit & Orchard Co. has purchased a tract of land in Tehama county and filed articles of incorporation in Oakland. The capital stock is \$50,000, and the directors are Newton Benedict, D. J. Quimby, J. B. Richardson and W. F. Randolph of Oakland and W. C. Evans of Alameda. The purposes are declared to be for planting, growing, preserving, buying and selling of fruits and other farm products; buying and selling real estate, building houses, barns, fences, fruit evaporators and canneries; buying and selling and preserving nursery stock as well as borrowing and loaning money.

The Vegetable Garden.

In the first issue of the RURAL PRESS for taking a hint from our old friend, J. W. Mack, we called on readers, who have had experience in vegetable-growing in California, to tell that experience for the benefit of the tyro and "tenderfoot." The first response comes from our faithful Vacaville contributor. We hope others will send us notes on the subject, as terse and practical as his, from different sections of the State. Here is "G.'s" communication:

EDITORS PRESS:—In the last number of the PRESS, Bro. Mackie wishes a few hints on gardening. I will try to tell what little I know.

As to the time to plant garden seeds, that varies in different parts of the State. Here at Vacaville, peas, button onions, lettuce and radishes should be sown as soon as the ground is wet enough, or sooner if a person is particular about having them early and is not afraid of doing a little extra hoeing. Peas should be sown once or twice later in the season, so as to have green peas all summer. These vegetables the frost does not hurt.

The rule of the farmers in some of the States is to plant corn when the oak leaves are as big as a squirrel's foot, but here we plant corn, beans, potatoes, melons, cucumbers and squashes just as soon as we think the danger of frost is past.

Beets, carrots, turnips and parsnips can be sown as soon as the ground is warm enough for them to grow without stopping on account of the cold. If beets are sown very early, they are apt to go to seed the first year. Parsnips and carrots want a rich, deep soil, and if the parsnip seed is over one year old, it is not apt to grow.

Cabbage seed should be sown as early as the 1st of January in a bed, and when the plants are from three to six inches high they should be transplanted. Set the plants two by three feet apart, and just before a shower or in cloudy weather if possible. Cabbage plants should be hoed when the dew is on them, but beans should not.

Very often a cabbage or tomato plant will be found eaten off close to the ground, and it is always done in the night. Dig down to the root of the plant bitten off and you will find a brown grub-worm about half an inch long that has done the mischief. There are various ways of curing the worm of eating the plants after you catch him.

Tomato plants can be planted in a bed like cabbage, only later, as they are tender and a little frost kills them. The best way for a small garden would be to make

A Hot-Bed.

The cost would be but little if made as follows: Dig a hole 4 by 6 feet and 2 feet deep. Curb it up with any old boards handy, one foot above the ground on the south side and 2 1/2 on the north, stopping the ends to match the sides. Now fill in two feet deep with fresh stable manure—dry, if it can be had, but at any rate not so old as to have lost the heat. Wet it thoroughly and put on six inches of dirt. Sow the tomato seed about one inch deep. If glass is not handy for a cover, a piece of canvas, painted so as to turn water, will answer. The plants must be kept watered and the canvas rolled up to give them air and sun on warm days. The plants here are generally set out when the first blossoms are on the vines, but they are first transplanted into what are called cold frames, which are similar to hot-beds, only not so tight. Ashes sprinkled on melon-vines will sometimes drive off the spotted bugs which are quite numerous here, but if the bugs make up their minds to have the vines, they (like a woman) generally have their way.

Shorthorn-Breeders' Conference.

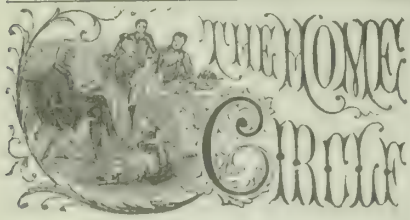
EDITORS PRESS:—Your valued paper of the 5th inst. contained a suggestion from Mr. Peterson of Sites, that the Shorthorn breeders of the Pacific Coast form an association for the purpose of having meetings to further the interests of that noble breed of cattle. I have talked with several breeders on the subject and all seem to favor the idea, and it seems all that is wanted is some one to lead and make a call for such a meeting. I believe the PRESS will also help the matter along by giving it a notice. Such meetings would bring out in discussion many things of great interest and value to those who are young in the business of breeding pure-blooded cattle. I would here suggest a meeting for the purpose of organization be held at the rooms of the Secretary of State Agricultural Society, Sacramento, at an early date, hoping other breeders may consult and make a call through your valued paper, and fix the date for the first meeting.

Perkins, Jan. 8, 1889.
[This indicates progress—what say other breeders?—EDS. PRESS]

FRUIT SHIPMENTS FROM SANTA CLARA CO.—We are indebted to I. A. Wilcox of Santa Clara for a copy of an account of fruit shipments from Santa Clara during 1888, furnished him by Mr. Stubbs of the Railroad Company as follows:

	Pounds.
Dried fruit	8,974,430
Green fruit	28,443,140
Canned goods	18,675,470

BIG PEARS.—One of our agents saw, on a recent trip to Contra Costa county, large Pound pears gathered from a limb over 60 feet high—pears that weighed from 2 to 2 1/2 pounds. These pears were grown in the orchard of Dorr Sharp, in San Ramon valley, three miles up the valley from Walnut Creek.



Little Feet.

Two little feet, so small that both may nestle
In one caressing hand—
Two tender feet upon the untrodden border
Of Life's mysterious land.

Dimpled and soft, and pink as peach-tree blossoms
In April's fragrant days—
How can they walk among the briery tangles
Edging the world's rough ways?

These white-rose feet along the doubtful future
Must bear a woman's load;
Alas! since woman has the heaviest burden,
And walks the hardest road.

Love for awhile will make the path before them
All dainty, smooth and fair—
Will cull away the brambles, letting only
The roses blossom there;

But when the mother's watchful eyes are shrouded
Away from sight of men,
And these dear feet are left without her guiding,
Who shall direct them then?

How will they be allured, betrayed, deluded—
Poor little untaught feet!
Into what weary mazes will they wander,
What dangers will they meet?

Will they go stumbling blindly in the darkness
Of sorrow's tearful shades?
Or find the upland slopes of Peace and Beauty,
Whose sunlight never fades?

Will they go toiling up Ambition's summit,
The common world above?
Or in some nameless vale securely sheltered,
Walk side by side with Love?

Some feet there be that walk Life's track unwounded,
Which find but pleasant ways,
Some hearts there be to which this life is only
A round of happy days.

But they are few. Far more there are who wander
Without a hope or friend—
Who find their journey full of pain and losses,
And long to reach the end.

How shall it be with her, the tender stranger,
Fair-faced and gentle eyed,
Before whose unstained feet the world's rude high-
way
Stretches so strange and wide?

Ah! who may read the future? For our darling
We crave all blessings sweet—
And pray that He who feeds the crying ravens
Will guide the baby's feet.

—Florence Percy.

Joaquin Miller on the Storming of Chapultepec.

Not long ago I wrote an Open Letter to the War Department on behalf of an old soldier here. This brought so many letters to me from this class that I am almost compelled to say to one and all that I have but little respect for any man who is and has been nothing but a soldier. So don't write to me for either money or sympathy simply because you went to war. You were paid for it, and paid well. Why, nearly every man in California in the old days went out to fight Indians time and again and never got a cent. And General Fremont says in his new book that there is no fighting so terrible as these fights with savages. Yet I know a man who took part in six Indian wars, was three times wounded, and never asked or had a cent for his work or his wounds.

But here comes a man who claims to have been wounded at the storming of Chapultepec, and he wants an increase of pension.

Now as I have broken bread on the heights of Chapultepec, the Mexican West Point, and know all about the Mexican side of that most dastardly piece of work called "The Storming of Chapultepec," I am going to tell the country what the Mexicans told me about it. I think the less we brag about "the storming of Chapultepec" the better. Like all battles, this has two sides to it.

Not long ago I mounted my horse in Mexico City and rode on out toward, and past, Chapultepec by way of the gate by which the American Army entered toward the close of the Mexican War. The great stone gate-posts, and walls, and the grand aqueduct by which the city is supplied with water, all these are still badly torn and shattered by cannon-balls. The poor disheartened Mexicans have never, from that day, attempted to restore either the gates or the walls of their city. In one place I saw a cannon-ball still sticking in the high stone

aqueduct. For you must remember that his long and costly water-way is on lofty arches. It is many miles in length and is not much inferior to the once famous aqueduct of Rome, the broken arches of which may still be seen stretching from "the city of seven hills" far out toward the olive hills of Froskata and Tivoli.

I must not forget to tell you that it is the fashion here to spend much of the day on horseback, although many rich people drive, especially the ladies. They have street cars here now in great numbers passing in and out at nearly every gate of the city. They are drawn by very small mules and always go on a run from one town to the other. They go in long strings, like the steam cars, and never stop to take in passengers by the way. The guidebooks tell you that this is done as a prevention against brigands! Once for all, let me say that Mexico is as safe from brigands as is Texas, or any other broad and sparsely settled country. The streets of the City of Mexico are much safer from all sorts of bad people later night and day than are those of the lower part of New York City. On the occasion of my ride before referred to, I passed by the old baths of Montezuma, on the southern base of Chapultepec. And here on the warm rocks this pleasant winter day I saw, basking in the sun, an enormous rattlesnake.

Ten minutes' gallop farther on up the most excellent roads—for this is the fashionable drive—and I entered the wonderful cypress woods. The trees here are of most stately dimensions. They are hung with long gray moss, much like those of the Southern States, and are indescribably grand and solemn. Many of them are thirty feet in diameter, and lofty in proportion.

The Spanish conquerors found those two here. A little to the north of Chapultepec stands the cypress tree under which Cortez sat and wept after he had been driven from the city by the Aztecs.

A gallop of ten minutes more took me entirely through this noble grove of mournful and majestic cypress trees, and brought me to the battle-field of El Molino del Rey: *The Mill of the King.*

An old mill stands here, still grinding. A dozen dismal mud huts make a sad and ugly border for the beautiful forest of Montezuma. On each of these huts sat at least a dozen hideous bald-headed vultures, stretching their long necks now and then out toward where I had thrown myself on the short brown grass to muse and meditate; while my horse nibbled daintily at the blossoms of a cactus hedge. The vultures continually bowed their bald old heads, continually stretched their long, ugly necks toward me, and seemed in their lazy fashion to be asking me, as I lay there, if I were really dead and ready to be eaten!

A naked Mexican, nearly black, trotted by with a pigskin full of their native drink on his back. They are always naked when at work or bearing burdens. They carry their clothes under their left arm till they come to the gates of the city. And this poor fellow with the pigskin, a woman and child pulling grass which they put in a bag, the dozens of bald-headed vultures—were the only living things to be seen on the famous battle-field of Molino del Rey.

But pretty soon I heard singing—such soft and old-fashioned and far-away singing as I had not heard since I sat cracking nuts at my father's hearthstone forty years before. I listened as I lay there, scarcely daring to breathe for fear of breaking the tender thread of melody and the holy memories of home and childhood that were interwoven with it. But it kept on, sweet on, like an æolian harp, now low, now louder, but always in such sweet harmony; so tender, so soft, so far away, so full of childhood, of home. . . . I could not see the blue sky above me at last, here on the brave old battle-field. Maybe the wind began to blow, and maybe some dust of the battle-field blew into my tired old eyes. Surely I was a child again.

Rising up on my elbow to dig out a handkerchief from my pocket, I looked down and saw that my legs were almost black with crickets—pretty little flat-backed, black, hearthstone crickets! And these were my little charmers, "charming never so wisely."

Ah, mournful little cricket clad in black, sing on; sing on forever above the brave Mexican defenders, and the valiant invaders too, who fell on the battle-field of Molino del Rey behind the heights of beautiful Chapultepec! I know of nothing more tender, more touching to the heart of an American, than this pretty and pathetic fact. And in this fact you read the real meaning of the name "Chapultepec." It is these pretty little black mourners who mourn and sing their sad melodies here forever over the battle-field. It is these crickets that have given the sweet name Che-pul-ta-pec—the singing of the grasshopper—to these glorious and battle-torn heights; translate it as you

please. But these little black crickets have been saying and singing continually, and for thousands of years, I reckon, Chi-pul-ta-pec! Chi-pul-ta-pec! Chi-pul-ta-pec!

There is a great big hideous battle-picture hanging in the Capitol of our Nation called "The Storming of Chapultepec," which must be taken down; and not entirely because it is so badly painted, either. Listen to the true story of the storming of Chapultepec: This high overlooking the City of Mexico is, as said before, and was at the time of the Mexican War, the Military Academy of Mexico—the Mexican West Point.

Well, nearly all the boys here had gone down to battle, had fallen in the various battles that had already been fought under the walls of the city and within sight of the Academy. But there still remained nearly one hundred too small to bear arms, all being under the age of fourteen—some being no more than nine years of age.

When the summons came to surrender, the only surviving man there was the old white-headed schoolmaster of the very small boys. Now bear in mind this is the Mexican side of the story I am telling. But I believe it to be entirely true, or I certainly should not write it down for my own country to read. The old man hesitated, not knowing what to do, as the leaders had all been killed or captured. And so the storming party of Americans came pouring on through the cypress trees and up the hill. The old man meantime kept urging his little boys to go down the hill on the other side, still open to escape, and get out of the way. He even pushed some of the party down the hill, notably one little boy of nine years who had a widowed mother depending on his future, and who afterward became famous. But some of the little fellows, forty-one in all, were too full of fight to go. They turned about, drew their little swords, and, with the old man at their head, fell and died all in a heap there at the door of the Academy!

Down at the foot of this high stands a modest little monument with an inscription to this effect: "IN MEMORY OF A SCHOOLMASTER AND FORTY-ONE OF HIS PUPILS." That is all. But on the little mound there every day of the year, rain or shine, peace or war, is laid a wreath of flowers.

And so I say that the insolent and false and absurd battle-piece which looks down over one of our great marble stairways in the Capitol of our great Nation has got to come down. It has been there too long already. It should never have been put up there. For it is as false to art as it is to history. Besides all that, the less we say about some of these battles the better for American honor and patriotism. 'Twas a sad war at best. The little crickets seem to know it, too. For over and over their sad song runs: "Cha-pul-ta-pec! Cha-pul-ta-pec! Cha-pul-ta-pec!"

And this is about all I have to say to you or any other "veteran of the Mexican War." If you were wounded at the "storming of Chapultepec," you were most likely wounded by one of your own comrades or by a beardless little boy fighting for the home of his fathers; and as you already have a pension according to your own account, and were certainly well paid at the time of our ignoble invasion of the sister Republic, I think your present mournful letter to me a miserable and most unsoldierlike piece of impertinence. At the same time I ought to add that I am only one of our sixty millions and speak only for myself. But I have been in too many battles to hold any man in great respect who can do nothing but fight and brag about his wounds. Why, the dogs of the street can fight. A dog can fight better than a man any day, and he doesn't brag about it, either. Give me a man who, like Coriolanus, refused to show his scars or sell them to the country for coin or place, and "I will wear him in my heart of hearts."

JOAQUIN MILLER.

The Heights, Oakland, Cal.

WHAT SHE DID WITH A TRAMP—A dispatch from Tacoma says: At about 4 o'clock this afternoon the servant girl employed at the residence of Mr. and Mrs. David Lester, on Pacific avenue and Fifteenth street, noticed a burly young tramp enter the basement of the house from the back door. The girl was some distance from the house, and immediately notified Mrs. Cotes, who lives next door. This plucky woman took her husband's Winchester rifle, loaded it, and, going to Mr. Lester's house, found the intruding tramp, and covering him with the rifle forced him to come out of the house quietly. Mr. and Mrs. Lester, returning home, were just in time to see Mrs. Cotes raining blows upon the head and shoulders of the tramp, using the gun as a club. A large crowd had collected at the corner, and witnessed the proceedings with great hilarity. When he had been beaten for some time the would-be-beaten thief slunk off in abject fear of being shot. Mrs. Cotes weighs not much over 100 pounds, but has pluck in abundance.

Another Image Broken.

(Written for the RURAL PRESS by DAGMAR MARIAGER.)

Mr. S. and wife didn't have any turkey for Christmas, and neither did I; and the strange thing connected with these facts was this, that we didn't want any. Indeed, we had, baby and all, gotten a wave of that Christian charity which we are told is scarce, and the consequence was that the two turkeys our neighbor expected us to buy actually had their Christmas, too, on their legs, subject to voluntary motion, and with their gobbling organs in working order. I don't know but our two families may be accused of putting our heads together and plotting against our neighbor's time-honored custom, the demand-and-supply enthusiast, the world at large, and even sacred laws. If so, then, of course, we propose to plead innocence with all the barefacedness possible. And if that doesn't annihilate the anticipated storm of blame, we expect to ask "I. H.," author of "Hints for a Christmas Dinner," in the Dec. 22d issue, to help us bear the burden of it. We know something about nervous headaches and their causes, and so could afford to shed a tear of sympathy for Aunt Sarah and her numerous duplicates, followed by a "bravo" for the true gentleman, Uncle John.

True, we did put our heads together, repeating significantly Ethel's words: "Holidays! What are they for but to add new burdens to those we women have to bear already? If there could be a holiday without eating and drinking I could enjoy it." Yes, we whispered to each other, if only holidays were worshipful in some more humane and less sensual way than the wholesale "stuffing" and "swilling" so widely practiced, we might feel more conscientious in persecuting the intidel who ignores them.

We then slept and dreamed over the germ of rebellion that had entered our souls, and we saw turkeys, happy turkeys, gossiping among themselves, and enjoying the air and sunshine nature gave alike to turkey and man; and we awoke with the germ briek as the Hindoo magician's mango seed, grown to a fruit-bearing maturity.

Yes, we put our heads together, and our labors, too, though they were not very fatiguing. We doubled our families, so to speak, and bustled about for a little while in getting up the dinner, which is to pass into history, by way of our diaries, as an exceptionally pleasant affair. The table was spread with things warm, good to the taste and wholesome, and we all helped ourselves to what best suited us. Those who preferred their pudding first and soup last had it so, and vice versa. We had no animal flesh on the table, yet I doubt if any Christmas dinner in the State, with its accompanying chat, was more merry and generally satisfactory than was ours.

Mrs. S. and I spared ourselves the bruises of the Juggernaut wheels, and we feel rather proud than guilty in having done so, as we are not partial to blood atonement nor to the making of burnt human sacrifices over the kitchen range.

Santa Barbara.

Chautauquan Program.

The annual meeting of the Pacific Coast branch of the Chautauqua Circle took place at San Jose on the 31 instant.

It was resolved to hold the summer meeting at Pacific Grove, Monterey, during two weeks, beginning July 8th. Rev. Dr. Sinex was authorized to procure a tent and have it erected near the seashore for the purpose of vesper services and round-table discussions. Dr. A. C. Hirst, president of the University of the Pacific, was appointed to preach the morning sermon on the first Sunday and Rev. Dr. Wheeler of Sacramento the evening sermon.

It was decided to add an art department to the course of study, and Miss Kennedy, of the University of the Pacific, was selected to conduct it.

It was decided to invite the following gentlemen to speak at the summer meeting: Rev. H. C. Minton of San Jose, Rev. Dr. McKenzie of S. F., Rev. Dr. Dille of Oakland, Prof. E. S. Holden of the Lick Observatory, President Davis of the State University, Prof. Le Conte of Oakland and Prof. Thoburn of the University of the Pacific.

"CHESTNUT," as a slang phrase, is done with, and an equally meaningless word has been substituted. It is "dusty." Do you admire anything from a stylish toilet to a dainty dish, you are privileged to say: "There is nothing 'dusty' about that." On the whole, when one takes time to consider, there is more sense in "dusty" than in most fashionable slang. A dusty object suggests one whose freshness is despoiled. Just how the "chestnut" was ever significant, no one has yet clearly defined.—*Table Talk.*

LANE LECTURES.—The seventh course of free popular lectures at the Cooper Medical College in this city opened on Friday evening, Jan. 4th, with an address by Prof. L. C. Lane on "Sorcery." The lectures are to be continued on alternate Friday evenings up to and including May 10th by Profs. Barkan, Wythe, Gibbons, and others distinguished in the profession.

The Ethics of Marriage.

Every now and then a book is written because the author *has* to do it; because he feels that a word must be said, and, since no one else will say it *now*, he must try to utter it. Such an one is "The Ethics of Marriage," by Dr. H. L. Pomeroy of Boston, lately published by Funk & Wagnalls of New York.

The scope of the work may be seen in these chapter headings: The Family and the State; Marriage; The Perversion of Marriage the American Sin; The Mission of the Child; Heredity; Woman's Work; Over-Population; Other Bars to Parenthood; Suggestions. And the spirit in which the doctor has written shows forth in the title-page motto: "A little child shall lead them," and the inscription: "To my mother this little book is affectionately and reverently dedicated."

A few brief extracts, taken here and there, may give some notion of the wise and noble way in which the author treats his momentous theme:

In a republic all civil reform must have its roots in reform of the individual and the family. * * The voter's will is usually the expression of his birth and home training. And so we may trace reform back to the nursery.

We pride ourselves on our zeal for the sanctity of the family relation; and yet we entertain false and dangerous ideas respecting marriage; and these ideas are leading to practices which will, if unchecked, soon corrupt and destroy our national life. A healthy marriage begets a healthy family, and a sufficient number of healthy families beget a healthy State. So the ideal State may be traced back to true views and treatment of the marriage relation.

We can never have satisfactory laws which shall be vigorously executed until each home in the land becomes an institution for rearing and educating intelligent, conscientious voters who will be ashamed not to vote when it is possible to do so.

When men and women understand and appreciate the mission of the little child, they will have regard for the welfare of that which may by and by be born to them. The child even before birth is able to lead the parent out of selfish thought into loving care for another.

A young woman should not forget that her lover virtually proposes himself as the future father of her children; only from this standpoint can she make an intelligent and safe estimate of him.

An honorable spinsterhood is a hundred times better than a dishonorable wifehood. No woman should marry unless she loves; marriage which is not a union of hearts as well as hands must always be a virtual failure.

A good time to learn to be a prudent, temperate and virtuous husband and father is during the 20 years before one begins.

Children who are given pre-natal love and care, so that they have a clean and noble birthright, and who are afterward thoroughly and reverently instructed in regard to the nature and functions of the bodies God has given them, may be expected to possess characters which, by strength from within, will hold out against almost any attack on their virtue.

It would be well for the world if the theologian, the scientist, the philosopher, the political economist, the philanthropist, and all the others who are working for the good of humanity, have the little child set in their midst, and learn from it that their interests are not many, but one, and that each is a co-worker with all who are at work on the various problems of life, which are, after all, but one problem—in what manner and by what means to form character and bring it into harmony with the Creator and His creation.

We are informed that Dr. Pomeroy is a physician and surgeon of large experience in constant and varied practice; and the fact that a minister of so high standing as Rev. J. T. Duryea, D. D., has written an introduction to the volume, and given it his hearty indorsement, is very gratifying and encouraging to those who have at heart the cause of moral education. We hope that this modest, earnest little work will find a million of attentive and reverent readers.

Temperate, Self-Denying, Honest.

Remarkable for their temperance and gentleness in expression, as well as uncompromising protests against tippling and gambling of all sorts, are these resolutions adopted by the recent Unitarian Conference at San Diego:

"Resolved, That our conference expresses its profound sympathy with the National Unitarian Temperance Society, the Woman's Christian Temperance Union and all other organizations that are battling the giant evils of intemperance in our land; and that we will, during the coming year, use renewed endeavors to bring to the attention of our parishioners the aims and objects of these organizations.

"Resolved, That since it is agreed on all sides that such beverages form no part of a necessary diet for men and women in health, we affectionately call on those who may regard their moderate use as innocent to give up such use out of compassion for their weaker brethren.

"Resolved, Seeing that the common weal requires each to do his share of the common work as well as enjoy his share of the common product, and that to get value from others without rendering an equivalent is demoralizing, we record our protest against gambling of all descriptions, whether home or foreign lotteries, faro games, betting upon races, raffles and gift enterprises, as well as speculating schemes in merchandise, mines or lands, whose success to the few means the impoverishment and demoralization of great numbers."

YOUNG FOLKS' COLUMN.

A Tale of Long Ago.

[Written for the RURAL PRESS by MAUDE S. PEASLEE.]

There was great rejoicing in a land across the sea when the king came home from a victorious battle. The city was hung with bright garlands of flowers, and the children strewed blossoms under the feet of the returning warriors. Even the horses seemed to partake of the general rejoicing, for, although weary and footsore, they carried their heads proudly and stepped lightly.

Behind the escort of the king came a little band of worn and haggard prisoners. One among them was a boy in years, but manly in his undaunted spirit.

"Away with them!" cried Alfric the king, as they reached the castle gate. "Cast them into the strongest dungeon beneath the castle walls!"

He then passed into the castle to carry the good news of victory to his queen. His little daughter Gerda had been awakened by the clash of arms in the courtyard below, and was sobbing piteously in her cradle. Her mother could not quiet her, and the king took her in his mailed arms and carried her to and fro while he told the queen of the success he had had in battle.

The child looked up through her tears, and smiled in the father's face.

"God keep thee safe from harm, my babe," he said, and laid her down in her cradle.

The gentle mother sighed, for she felt that none were safe while bloodshed ruled the land.

The years had passed in peace and quiet, and the little Gerda's flaxen hair now reached below her waist. She had often heard of the terrible war that shook the land seven years before, but most she liked the tales her old nurse Hedwig told her of the fairies and gnomes who lived under ground.

One day she was playing about the castle, and in an old room she found hid under the tapestry a picture of two men fighting. The victorious one had his foot on the chest of the other, and his battle-axe was lifted to kill him.

"Thou hateful, hateful fellow!" cried the tender-hearted little princess; and clenching her little fist, she struck the victor.

At the blow, the picture swung back on hinges like a door, and disclosed a flight of steps leading down into darkness.

"Ah! now I shall find the fairies!" cried Gerda joyfully, and she started fearlessly down the steps.

Down, down she went until, through winding passages, she lost her way and wandered to and fro, crying softly and calling to her good nurse Hedwig to come and show her the way.

Suddenly she heard a voice, and listening, it said:

"Who weeps?"

"Tis I, 'tis Princess Gerda," she cried. "I cannot find the way."

Then the voice said:

"Fear not, O Princess Gerda! If thou wilt turn the key, How gladly will I offer To be a guide to thee."

She felt about in the darkness and found the rusty key, but she could not turn it in the lock.

"Oh! try once more," the voice cried.

She tried again and again, and at last turned it round, and the door swung open.

Some one came out and bent over her. She could not see him, but his voice was kind, and she was not afraid, but put her hand in his.

"Now, little maiden, will you promise me to never tell how you came down here, nor of what you found? If so, I will lead you up to the glad sunlight again."

She promised eagerly, and they began going up the stairs. Before long they reached the door in the wall made by the picture of the two men fighting. When she turned to thank her companion, he was gone, and she could see only the picture against the wall. She wondered much, but, remembering her promise, she told no one nor asked any questions.

Ten years more passed away, and Gerda stood in the old room once more. Outside was the clash of arms again, and she was sick at heart at the thought of the danger her father was in.

The cruel Alaric, King in the North, had swept down upon the land, and driving all before him, was now storming the castle itself.

Just as a shriek from within was followed by a shout from the besiegers, "The drawbridge is down!" a crash of arms was heard on the right side.

The superstitious army stood a second in dismay, and then a murmur ran through its ranks.

"The gods! the gods! they are against us!" and with one accord the whole army turned and fled. They were followed and many slain by the king's hosts.

Poor Gerda stood within the old room, trembling still for the fate of her father.

When the king's men returned, he himself sought the stranger who had so aided him.

"Who art thou?" he asked, "and what brings thee here?"

"I am Eric, son of Alfric," he answered. At this the king paled.

"I have heard of thee, and how well thou

rulest thy kingdom by the sea. But thy father sleeps on yonder plain slain by my hand; why comest thou to help me?"

"I come for thy daughter's hand," said brave Eric. "Have I thy permission to ask her will?"

The king bowed his head, for he could not well refuse; and going first to his daughter, he told her the news.

"It would please me well," he said, and she bowed her head in meek submission to her father's will.

Great was her surprise when Eric entered to hear softly whispered in her ear, as he took her willing hand:

"Fear not, O Princess Gerda! If thou wilt turn the key, How gladly will I offer To be a guide to thee."

DOMESTIC ECONOMY.

Savory Fragments.

The table is the place where most waste can occur; so guard it well and pay strict attention to the second serving of food. The people who prefer an economical table, which in their own mind means broiled steak and roast beef, are the most difficult to cater for. Study to make the warmed-over dishes decidedly more than ordinary hashes. Employ judicious combinations and pleasant seasonings—for instance, use sage with warmed-over pork, parsley with poultry, sprig of mint with your mutton or lamb, and a little onion to stimulate the beef. Cucumber catsup, inexpensive if you make it yourself, brightens the flavor of fish. An acid jelly with tame duck, and tomato sauce with warmed-over veal. For warming over dark meats use brown sauces, made from browned butter and flour; for white meats, cream sauces, which, of course, can be made of milk. One or two potatoes, left from dinner, will make a comfortable dish of Lyonnaise potatoes for breakfast. The two tablespoonfuls of green peas left may be turned into an omelet for another meal. Boiled rice may be made into croquettes. Fish into scallops, cutlets or cream fish. Ham into croquettes. Beef into hash, meat balls, ragouts, rissoles, or warmed up in its own gravy. Soup meat may be pressed or potted. Game and duck made over into salmis. Chicken and turkey into salads, croquettes, rissoles, boudins and timbale. Pieces of bread left at the table may be used for toast, croutons, bread puddings, or crumbs for breading. Veal rewarmed makes delicious blanquette or cromesqui.

Many vegetables suffer but little from a second warming, and even if only in small quantity, may be served as a garnish for a little meat dish, thereby rendering it palatable and sightly.

In all these little points we must be on the alert, or the garbage bucket will devour our substance. Those who have the responsibility of the household management must not forget the necessity of practical work in the kitchen. The power of giving directions so clearly that the maid will from them produce the desired results, is, perhaps, all that is required in some cases; but to teach others thoroughly, so that no waste will occur, one must be able to do the thing one's self. It is well to give at least one hour a day to the study of cooking as an experimental science; also, to study the chemistry and physiology of food, and I have no hesitation in saying that in three months you will be well repaid for the time thus spent. Look, for instance, at a combination like this: Roast pork and mashed potatoes; such occurs frequently in families of some intelligence, but nothing shows one's ignorance so quickly as such menus. Pork and beans or peas show some sense, but pork and potatoes none. No domestic art shows so much thought, care, judgment, intelligence, inventiveness and taste as good cooking.—Mrs. Rorer in *January Table Talk*.

Making Wine Vinegar.

In answer to a request for information how to make vinegar from wine, we reprint the following, written by D. R. for the RURAL some years since:

Our California white wines contain from 14 to 18 per cent alcohol according to where they have been raised, the wines from the foothills being much heavier than those from the lower lands, especially if they have been irrigated. For vinegar, you do not want more than eight or nine per cent alcohol, so you have to add from three-fourths to one part of water; the best is rain-water, or else take spring-water and boil it for awhile; pour the mixture into a barrel or pipe, but don't quite fill it up; bore a hole in each head near the bungstave to give a good circulation of air, and close the bunghole with a bottle, neck down; keep as near as you can at a temperature of from 80° to 86°, and if your vinegar gets sufficiently sour, draw off and refill, and it will sour much quicker the next time. To create a quicker fermentation you can add some yeast of any kind, sour dough, or, if you can get it, mother of vinegar, in filling the barrel the first time—afterward it is not necessary.

SNOW CAKE.—Two cups sugar pulverized, one cup butter, one cup sweet milk, one cup cornstarch, two cups flour, two heaping teaspoonfuls baking powder, lemon.

GOOD HEALTH.

Points About Pneumonia.

According to a medical contemporary, Dr. Gouverneur L. Smith of New York has just given some interesting and startling facts in regard to pneumonia. Dr. Smith points out that the disease is becoming worse every year, increasing rather than decreasing, both in the number of cases and the percentage of mortality. The statistics of the Pennsylvania hospital show that the mortality from pneumonia there advanced from 15½ per cent in 1847 to 31 per cent in 1886. Similarly, in the New York hospital the ratio of mortality from this disease is more than double what it was in 1878. Thirty or forty years ago it was regarded as serious, but it did not excite anything like the alarm it does to-day. Dr. Smith is rather inclined to believe that the medical art, instead of progressing in its treatment of pneumonia, has actually gone back, and holds that the old methods of treating the disease at the time it was less deadly have been abandoned for methods more final, but less efficacious.

Symptoms of Approaching Pneumonia.

Dr. J. B. Johnson writes in the *Medical Summary* as follows:

The approach of pneumonia is not always without warning. There are usually certain feelings or sensations of the body which tell, with greater or less certainty, that an attack is beginning. An individual, for a day or two prior to the actual invasion of the disease, feels badly in a general way. These bad feelings consist of a chilliness of the whole body, and if his clothes be at all damp with perspiration he feels cold and uncomfortable. He is feverish, and yet it seems impossible for him to get warm. This feverishness is attended with great chilliness, which increases when he is exposed to a draft of cold air.

As evening approaches all these bad feelings are increased, and when night comes on he has pains in his back and limbs, accompanied by a slight cough and unnatural frequency of breathing, with unusual quickness of the pulse and a feeling of uneasiness or oppression about the chest. His sleep is disturbed by chilliness, restlessness and unpleasant dreams. The warmth of his bed and bed-chamber may cause a slight cessation of his bad feelings, and in the morning, feeling better, he goes out attending to his business, only to have all his bad feelings return with increased force at the approach of the coming night.

Should he heed the warning implied by the return of his bad feelings and confine himself to an equal temperature of about 65 degrees, and partake of copious drinks of hot tea, coffee or milk, he may possibly avert an attack of the disease.

DIFFERENT PHASES OF "MIND CURE."—Now that all forms of mental healing are much talked of and largely adopted, it might be well for the public to know that the disciples of the different schools resent the common practice of outsiders bulking them all under the head of "mind cure." Mind enters into each one, to be sure, but in different forms and through different doors. They who practice "Christian science" draw healing force from the Infinite Mind, and consider their own minds as at most a mere telegraph line through which the vivifying power reaches the patient's mind. Plain "mind cure" works by the operation of the healer's individual mind on the subject, and partakes of what is known as mesmerism or hypnotism. "Faith cure" and "prayer cure" are one and the same, both relying upon faith to override disease. If any one doubts that the healing of disease by mental methods is going on briskly in this city, let him drop into the offices of some of the best-known practitioners and see the collection of patients waiting hour after hour in order that each may get a treatment. Nine o'clock is the hour for beginning the business of healing. An hour before that, six and eight patients are in readiness to get their slice of life and health as drawn from the infinite source of all life and wholeness. From that time on until the office closes at night it is never empty, and most of these reach a point when they declare themselves healed.—*New York Press*.

EFFECT OF PETROLEUM ON THE HUMAN BODY.—A German physician has recently issued a report of his observations on the effects of petroleum on the human body. The facts on which his conclusions are based have been gathered during extensive travels in the American petroleum districts. He found that a skin disease was very prevalent among the workmen who were employed at the wells, and on closer examination he concluded that the disease especially attacked those who were engaged with the heavier and more inflammable oil. Numerous cases were discovered of large quantities of petroleum having been swallowed, with the result of violent affections of the stomach, kidneys, and nervous system. In one case where a glassful of petroleum had been drunk, the greatest difficulty was experienced in preventing the patient from falling asleep, an eventuality which is especially fatal in such instances. Symptoms of poisoning could also be traced after a lengthened period of inhalation of the vapor, but the symptoms were only noticeable when the subject was in a bad state of health.



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W. B. EWER.

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Business Announcements.

(NEW THIS ISSUE.)

Carbon Bisulphide—J. H. Wheeler.
Cherry Trees—A. Bouton, Healdsburg.
Whale Oil Soap—Allyne & White.
Surplus Stock—Gill's Nurseries, Oakland.
Carbon Bisulphide—James Linforth.
Almond Trees—Treat & Lennox, Davisville.
Horses—G. J. Vandervoort, Sunol, Cal.
Roses—The Dinger & Conard Co., West Grove, Pa.
The Housekeeper—Minneapolis, Minn.
Roses—Hill & Co., Richmond, Ind.
Sewing Machines—The Singer Mfg. Co.
Appliance Supplies—Mrs. J. D. Enas, Napa, Cal.
Polled Angus Cattle—Killip & Co.
Installment Notice—Grangers' Bank of Cal.
Horses—Holbert, Stinson & Co., Los Angeles.
Butter Color—Wells, Richardson & Co.
Seeds—F. Ford & Sons, Ravenna, Ohio.
Oranges—Japanese Tree Importing Co.

See Advertising Columns.

The Week.

We give much space this week to the review of California agricultural production for the year 1888. Statistics are often looked upon as dry reading, and yet there is no way at all comparable to carefully arranged figures for presenting facts and tendencies of industrial moment. The review, aside from showing the achievements in various individual lines of productive effort, gives the impression on the whole that our State is growing, and that it is proceeding upon the safe basis of diversified agriculture. Though people generally hear most of two or three branches in which there is much life and action, still there is commendable growth and progress in other lines which are perhaps quieter, but none the less honorable and important.

The weather has been, as a rule, clear, and some nights frosty, though intervening days were warm. We need a season of working weather for winter plowing and sowing and planting. The frosts are valuable, too, for the trees would soon be in full bloom were they in-

fluenced only by day temperatures. As it is, some trees on dry, shallow soil which became dormant early were in bloom on New Year's, but it is not well even for tree or human kind to be too forward. The modest man escapes many snubs and the backward tree saves its buds.

The Right Time.

It has become an adage, "strike when the iron is hot." Men often fail in their purposes of good because they do not act at the right time. The success of every good movement largely depends upon its being vigorously prosecuted at the proper time. History is full of examples. Take inventions for instance: Discoveries usually come when the times are ripe for them. When the progress of humanity culminates in some want or demand, an inventive genius is always ready to furnish what the public needs. The cotton-gin, the sewing machine, the reapers and mowers, the steam engine, the telegraph, the telephone, and hundreds of other useful inventions that we have no space to catalogue, came at the moment when society was ripe for them.

Take another illustration more fitting to the case now in view. Fifty years ago slavery in the United States was pretty generally regarded as a fixed and permanent institution. The only prevalent idea in the North was to prevent its spread over new territory. Perhaps nineteen-twentieths of the people in the North, while regarding slavery as a great evil, were willing to let it remain, provided it did not ask for new territory. They saw no hope of its abolition. But slavery was aggressive—it demanded the right to spread itself over the land. This in a few swift years brought on the eventful moment for wiping out the curse from the soil and Constitution of the American people; and the proclamation struck the fetters from 4,000,000 of bondmen. It could not have been accomplished at an earlier date. The convictions of the people were ripe for the event when it occurred, and the idea of liberty was placed as a star in the firmament of the Constitution at the most auspicious moment. It certainly could not have been so well done earlier or later. It came in the right moment, and the members of all political parties are satisfied with the result. Even the South to-day would not vote itself back to slavery.

Let us heed the lesson. It is certain that the legislation in this country for a number of years has been strongly in the direction of creating and upholding monopolies and special privileges in the shape of railway companies, water companies, gas companies, and other forms of monopoly. But this despotic power was not content to stop here, but has sought within a few years, like slavery, to extend its scepter over new territory. There is now scarcely an article of necessity and utility in the American household which has not fallen into the hands of monopolizing corporations or "trusts," from the sugar that sweetens our tea to the steel rails over which the commodities and products of the land are transported. This state of things has bred 500 millionaires where there were five before, and the workingman is just about as poor as he was in the beginning. But he is 25 years older in experience, and indications are not wanting that the workmen of the United States are becoming thoroughly aroused to the abuses and mischiefs of a legislative system which has so long been sustained by their votes. The numerous guilds, labor organizations and anti-poverty movements all show that new ideas are fermenting in the minds of the masses, in regard to legislative policy, that may portend great events.

"Strike when the iron is hot," if you expect the metal to be readily shaped by the hammer. Changes in the moral or the political world are most successfully made when the elements are right for the change; and surely there is no better time to stop, suppress, or remake this new form of slavery, that levies a tax on every article of the household, than just now while it is seeking wider dominion, and there is everywhere a feeling of uneasiness and irritation. There is a time for everything and the field is ripe.

APPLES WASTED.—According to the Nevada City Transcript, thousands of tons of apples rotted on the ground this season in the Bartlett pear belt.

California Fruit Union.

The annual meeting of stockholders of the California Fruit Union will be held at the office of the State Board of Horticulture at 220 Sutter street, San Francisco, on Wednesday, January 16th, beginning at 1 o'clock P. M.

The approaching meeting will be of exceeding great importance, and every man or woman owning a share of the stock should be present. The Union has been of great direct and indirect value to the fruit interest of the State. It has done as much and as well, probably, as could be expected of an organization working amid conflicting interests in an unknown field. It was an experiment at first; it is an experiment still so far as answering producers' needs is concerned. Its policy has been molded according to various interests which have been apparently merged in its management, but individuals have never forgotten or failed to strive for the paramount advantage of these interests. This is possibly only what might be expected, and we do not write in condemnation. If there is condemnation deserved it will no doubt be freely expressed at the meeting. What we desire as one of the earliest advocates of the organization and as a firm friend of it throughout, is that this year there may be a full and free review of its methods and policies, and that this review be followed by approval of the good and unhesitating elimination of the evil. There is an open fight being made against the methods and policies which have prevailed during the last year. We do not espouse that cause because we cannot claim sufficient acquaintance with the subject, but we know that the meeting will bring out claims and statements which should be calmly considered and passed upon by the whole body of the stockholders. For this reason we urge personal attendance wherever possible, and where proxies are unavoidable, let them be given to those in whose judgment to act in your best interest as occasion may require, you have confidence. As we have said, there is an open fight under way and efforts being made to mass proxies for the support of certain aims and policies; for this reason be careful in whose hands proxies are placed. Unless you are sure where your interest lies, withhold your proxy from all solicitants and place it as we have said—with some one who will act judiciously on the presentation of facts at the meeting.

Besides the issue as to internal policies there is exceedingly important work to be done. The proportion of gross receipts which is paid for freights and commissions is altogether too great and can be reduced by proper action.

The auction plan of selling, which has proved of such incalculable value, ended its season in Chicago with a most disgraceful row between rival concerns which should be thoroughly investigated and prompt and effective remedies applied.

The distribution of fruit at the East is still altogether imperfect and narrow and apparently hedged about by private interests. It must be given free field or we can never dispose of the mass of fruit which our rapidly growing orchards and vineyards promise.

There is much complaint too that all members of the Union here were not accorded shipping privileges to which they are entitled, and that some were favored and others disfavored. How far this was avoidable or otherwise we do not know, but such being the complaint it should be fairly considered by all stockholders, and the future guarded against the chance of such trouble whether it be from accident or interest.

For these reasons, and many more like them, we desire to give the greatest prominence to the coming meeting. It is far more than an annual meeting of an incorporation; it is the pursuit of a general movement which may hold in its progress vast benefits or ills to the great producing interest of the State. It does not concern alone the prosperity of those who grow shipping fruits. The work of the Union so far has possibly been of more value indirectly than it has directly, by the vast increase of shipment which it has accomplished. The value of every pound of fruit which has been marketed in the State has been more or less favorably affected by the operations of the Fruit Union. The organization may almost be said to hold the keys to the future of our fruit interest. Looking at the matter thus broadly, the importance of wise and comprehensive action at the coming meeting of stockholders appears in its true light.

Therefore let no slight excuse prevent the participation in its deliberations by all who have the right to speak and vote. Such action may not be for individual advantage alone, it may color the whole outlook of our fruit interest.

Opening of the Legislature.

The Legislature of California is now in session in Sacramento, the Senate under the presidency of Hon. Stephen M. White of Los Angeles, and the Assembly under the speakership of Hon. Robert Howe of Sonoma. Both Houses are Democratic, in each case by a majority of four. In another column of this issue may be found a full list of the members of both Houses and the districts they represent. This list should be kept for reference during the session.

The real work of the session began on Wednesday with the reading of Gov. Waterman's message, a straightforward and business-like document, necessarily long, because of the evident desire of the Governor to acquaint the Legislature and the public with the status of all the varied interests entrusted to his supervision. The telegraph brings an outline of the document just as the RURAL is going to press, and we have, therefore, no time to properly consider or comment upon it, or deduce those facts which seem to us of most importance. We shall present such a summary of the message in our next issue.

We bespeak for the session of the Legislature which will continue during the coming 60 days the careful attention of the people. There will no doubt be many measures which will need watching, some to promote, some to crush out. If the constituents of the respective members do their duty, they will communicate freely to them their earnest wishes and the reasons for urging them. Fair-minded members welcome such help, and to those prone to err, if such there be, a little wholesome advice will be useful, if not always welcome. The legislators are the servants of the public; the public has a duty not only in choice of its servants, but in seeing to it that the work is well done. If the people watch the legislators as closely as the bosses do, the latter will accomplish little.

In Furtherance of Forestry.

The State Board of Forestry has lately issued a bulletin (No. 5) calling the attention of our citizens, especially farmers and irrigators, to the usefulness of mountain forests, not only as sources of timber and fuel supplies, but also in hindering the flow of surface-water, retaining the rainfall in Nature's reservoirs, tempering the violence of winds and regulating temperature. In view of the value of the woodlands in these regards, the reckless denuding of Californian watersheds by ax and fire is deplored, and the aid of all good citizens is asked in preserving the forests from timber thieves and conflagrations, and securing State support for the work of the board in experimental stations and otherwise.

To this appeal the Merced Board of Trade has responded in the following timely preamble and resolutions:

WHEREAS, The preservation of our mountain water supply is of supreme importance to the agriculturists and irrigators of the interior of this State; and, whereas, the integrity of this water supply is mainly dependent on the preservation of brush and timber lands of our mountain water-sheds; and, whereas, the native timber and fuel supply of the San Joaquin valley is wholly inadequate to supply the demand; therefore, be it

Resolved, By the Merced Board of Trade, that the attention of the Governor and Legislature of this State be respectfully called to the efficient and conscientious work of the State Board of Forestry in the preservation of our mountain water-sources; and

Resolved, That this Board particularly asks for a generous support for our forest experimental stations as tending to encourage and promote general forest planting, and adding beautiful places of resort to the attractions of this State.

We hope that other organizations having at heart the welfare of our State will follow Merced's worthy lead in this important matter.

THE VITICULTURAL HEADQUARTERS.—It is announced that on Tuesday, January 15th, in the afternoon, the new establishment of the Viticultural Commission in Platt's hall, on Montgomery street, will be opened with fitting ceremonial. We have already given sketches of the plans and purposes of the commission in this connection, and no doubt their housewarming will be interesting.

Agricultural Review.

Leading Articles of California Production in 1888.

Notwithstanding 1888 was a dry year, the State enjoyed more than an average prosperous season. The land boom of 1887 gave way to more legitimate prices, which created better buying for investment by those in search of homes. Many large tracts of land were subdivided and sold out in small farming tracts, with the railroad selling the larger proportion in this way. The influx of immigration, although not on an extended scale as in 1886 and 1887, was, nevertheless, quite large and of a very desirable class. Railroad construction was unexampled, the number of miles added to the system being over 400—larger than any one State in the Union. The planting of vines and fruit and olive trees was very large, with many orchards set out on the foothills in localities where only experimental growing had been made to prove their adaptability to cultivation of fruits. The irrigation system of the State received a decided impetus during the year, causing the friends of irrigation to look forward to the reclaiming of many sections which now only give good crops semi-occasionally. This certainty of crops by irrigation will assure the settling up of all parts of the State with thriving, industrious farmers. The railroads last year gave better facilities to the transportation of fruits, etc., to the East, with a promise of a still further improvement in that direction in this year, which, if carried out, will do much in promoting the State's fruit industry. The high reputation being won by California fruit in the face of all opposition will, if sustained by growers, packers and others, cause it to be sought by distributors at a higher range of values than rule for fruits cultivated either at the East or abroad. The mild character of the past few winters has promoted the live-stock industry, causing a steady increase in their numbers, notwithstanding a large increased consumption of neat cattle and sheep in the State. There are several other industries that can be noted to advantage, but space forbids an enlargement in the introductory, especially as more general particulars are given in the subjoined review of each leading article of farm produce, to which the reader is referred.

Produce Receipts.

The receipts of California produce at this port in 1888 and 1887, not elsewhere specified, included the following:

	1887.	1888.
Flour, bbls.	932,385	1,099,391
Wheat, cts.	10,450,383	12,780,691
Barley, cts.	2,078,402	2,785,790
Oats, cts.	998,620	621,364
Wool, bales.	109,738	105,422
Hops, bales.	15,624	18,007
Wine, gals.	8,494,348	8,866,636
Brandy, gals.	251,204	252,696
Potatoes, sks.	1,006,093	1,091,170
Onions, sks.	134,358	134,959
Corn, cts.	188,891	174,117
Rye, cts.	27,631	20,835
Beans, sks.	320,769	272,599
Bran, sks.	434,486	431,907
Middlings, sks.	112,429	152,832
Hay, tons.	117,565	126,659
Straw, tons.	7,349	6,888
Hides, No.	114,435	131,378
Rabbits, bxs.	101,355	138,926
Buckwheat, cts.	2,299	4,668
Mustard Seed, cts.	38,071	26,019
Dried Peas, sks.	4,899	6,354

Wheat.

January 1888 opened weak at \$1.37½ to \$1.40 per cental, with the sales made reported to be principally the "syndicate" wheat. With free rains in January and harvest prospects of the most flattering character, prices shaded off 2½ cents, with a still further decline under a strong selling pressure, closing February at \$1.30 to \$1.32½ per cental. In March prices set back still more, No. 1 white shipping selling as low as \$1.27½ to \$1.32½. These low prices ruled in April, but with reports of dry weather values began to appreciate until \$1.40 was reached. In May prices dropped to \$1.37½, but soon recovered to \$1.42½ and \$1.45. In June the ruling price was \$1.30 to \$1.32½. Prices recovered in July, closing that month at \$1.37½ to \$1.40. In August there was a steady appreciation from the 15th until \$1.55 to \$1.57½ was reached on the 24th; from this range it advanced slightly, until, on the 29th, quotations were given at \$1.57½ to \$1.60. September opened at \$1.57½ to \$1.60, but prices gradually settled until they touched \$1.45 to \$1.47½ on the 26th, when they began to advance, the month closing at \$1.58½ to \$1.60. October opened at \$1.62½ and advanced to \$1.62½ and \$1.65 on the 3d. From this figure it settled to \$1.57½ and \$1.60, at which figures it held until the 25th, after which it gained strength, closing the month at \$1.60 to \$1.63½. November opened at \$1.62½ to \$1.65, but prices settled,

along the month at \$1.52½ to \$1.55, at which price December opened, and settled until \$1.41½ to \$1.42½ was touched, after which values recovered from 1½ to 2½ cents per cental. Shipments from July 1, 1888, to January 1, 1889, were the largest in the history of the State for the like time, as will be seen by reference to the table of exports.

A leading wheat operator says in confirmation of what has appeared, statistical and otherwise, from time to time the past year in the commercial department of the RURAL PRESS: "We started the year 1888 with light stocks throughout the world; this, combined with unfavorable harvest weather on the continent and in England, caused European operators, particularly in France, to enter the market as heavy buyers. The American speculators jumped in, and, as usual, ran away ahead of even the naturally consequent high prices. They ran them so high that dealers stopped buying any more than they could help, and exportations fell off. High prices always bring out wheat, and the Liverpool market was all of a sudden flooded by wheat which had been held back there. The inevitable consequence, a crash in prices, followed, for wheat prices are like a sand-bank which can be built quite high, but comes down all at once. The American system of speculating so largely in futures is bound to cause this sort of a disaster every now and then. The evil is not confined to those who deal in wheat. It affects trade generally." In our State, California, the market was not only affected by the movements abroad but also moved up, owing to the dry weather during the crop growing period. The unfavorable weather ruined many fields of grain, and also caused many farmers to cut their fields of wheat for hay. The cool, spraying weather in the month of June produced a radical change for the better and brought out a much larger crop and of better quality than was harvested in 1887.

The following table gives the highest and lowest prices per quarter in the English markets for cargoes of California No. 1 white shipping wheat:

	Off coast.	J'st ship'd.	Nearly due.
	High. Low.	High. Low.	High. Low.
Jan.	34s 6d 33s 6d	35s 6d 33s 9d	34s 6d 33s 0d
Feb.	33 9 33 3	33 9 33 6	33 6 33 3
March	34 0 33 0	33 6 33 0	33 9 33 0
April	33 9 32 6	33 9 32 6	33 9 32 6
May	34 6 33 6	34 9 34 0	34 6 33 9
June	33 9 32 6	33 9 32 6	33 6 32 6
July	35 0 32 9	36 3 32 6	35 0 32 6
Aug.	41 6 36 0	41 9 36 6	40 9 36 0
Sept.	41 6 36 0	42 0 39 0	41 6 39 0
Oct.	42 9 40 3	43 0 41 0	42 9 40 3
Nov.	43 3 41 0	43 3 41 0	43 3 40 6
Dec.	40 9 39 3	40 9 39 6	40 9 39 3

The following table gives the Department of Agriculture estimate by States of the acreage and output of the wheat crop in comparison with 1887:

States.	1888.	1887.
Winter.	Acreage.	Yield, bu.
Ohio	2,356,474	22,386,000
Michigan	1,466,521	17,598,000
Indiana	2,549,895	23,969,000
Illinois	1,983,574	23,266,000
Missouri	1,541,343	18,881,000
Kansas	1,037,000	15,451,000
Kentucky	1,035,018	9,377,000
Tennessee	1,199,400	9,595,000
Connecticut	2,170	37,500
New York	620,202	8,217,000
New Jersey	141,653	1,770,000
Pennsylvania	1,406,940	18,290,000
Delaware	94,790	1,033,000
Maryland	545,952	6,495,000
Virginia	610,413	5,310,000
N. Carolina	695,919	3,723,000
S. Carolina	190,711	1,068,000
Georgia	374,453	1,797,000
Alabama	196,760	1,033,000
Mississippi	40,617	304,000
Texas	572,225	6,752,000
Arkansas	233,672	2,103,000
West Virginia	305,198	2,786,000
California	2,627,924	29,129,000
Oregon	910,826	15,256,000
Totals	22,744,550	245,667,000

States.	1888.	1887.
Spring.	Acreage.	Yield, bu.
Minnesota	2,990,000	34,850,000
Wisconsin	1,240,000	14,880,000
Iowa	2,400,000	33,480,000
Nebraska	1,640,000	20,919,000
Dakota	3,700,000	55,500,000
Colorado	190,000	4,085,000
Washington	560,000	9,800,000
Idaho	75,000	1,425,000
Montana	100,000	1,750,000
New Mexico	81,000	1,215,000
Utah	125,000	2,437,000
Other States	100,000	1,300,000
Totals	13,281,000	181,632,000

Grand totals. 36,026,000 427,299,000 37,641,783 456,329,000

Note—Acreage of spring wheat estimated.

The exports of wheat and flour from this port for the calendar year 1888 were as follows:

Months.	Wheat.	Flour.
	Centals.	Barrels.
January	714,057	71,108
February	975,354	71,529
March	900,051	98,405
April	633,404	52,034
May	399,467	35,893
June	246,097	119,453
July	787,640	44,793
August	1,531,697	76,506
September	1,671,268	25,343
October	1,462,575	50,234
November	1,088,300	97,043
December	1,353,528	78,299

Total 11,763,436 824,655
1887 9,065,152 797,232
1888 15,832,155 1,124,615
1885 11,727,895 1,295,657

Reducing the flour to wheat, there was exported 14,237,401 centals. Of this quantity the United Kingdom took in wheat 9,532,568 centals and flour 272,781 barrels. France took 1,858,175 centals of wheat, Belgium, 181,400, Peru 106,274, Brazil 44,361, Central America 18,499, and elsewhere 22,150. Of the flour shipment, China took 275,848 barrels, Japan

21,919, Hawaiian islands 46,192, Central America 120,595, Panama 17,076, British Columbia 1909, Mexico 5750, Society islands 14,448, Australia 12,392, Asiatic Russia 7160, South America 11,053, Manila 16,323, elsewhere 1237.

Stocks in Liverpool compare as follows:

	Wheat, quarts.	Flour, sacks.
Jan. 1, 1889	550,575,000	150,180,000
Jan. 1, 1888	750,775,000	140,150,000
Dec. 1, 1888	550,575,000	110,120,000

Compared with the forepart of the year the quantity of wheat at the close of 1888 on the way to the continent decreased from 620,000 to 458,000 quarters (a quarter is eight bushels), and on the way to the United Kingdom from 2,439,000 quarters to 2,377,000.

The wheat crop in this State last year is estimated as follows by county:

	Aeres.	Centals.
Alameda	70,000	300,000
Butte	220,000	1,500,000
Calaveras	40,000	180,000
Colusa	364,944	2,400,000
Contra Costa	78,415	750,000
Fresno	56,000	600,000
Humboldt	22,463	210,000
Kern	26,000	300,000
Los Angeles	180,000	1,800,000
Mariposa	1,500	120,000
Mendocino	18,000	180,000
Merced	254,100	300,000
Monterey	115,700	1,200,000
Napa	8,469	180,000
Sacramento	85,000	600,000
San Benito	45,515	300,000
San Bernardino	6,000	60,000
San Joaquin	766,562	900,000
San Luis Obispo	100,000	600,000
Santa Barbara	60,000	450,000
Santa Clara	23,721	600,000
San Mateo	2,214	330,000
Santa Cruz	4,969	240,000
Siskiyou	8,227	90,000
Solano	60,000	600,000
Sonoma	19,845	210,000
Stanislaus	250,000	750,000
Sutter	125,000	900,000
Tehama	100,000	900,000
Tulare	300,000	1,200,000
Tuolumne	5,000	30,000
Yolo	145,000	900,000
Yuba	30,000	300,000
Ventura	13,336	90,000
Other counties	6,000	60,000
Totals	3,082,010	20,202,000

Barley.

Barley, which for several years was the chief center of speculation on Call, has been relegated to second place, and although the consumption in this State, owing to the light production of corn, is quite heavy, reaching over 375,000 tons a year, yet prices move in keeping with the supply and demand. The market for feed grades the past year was very satisfactory to the selling interest, but bright, plump brewing and Chevalier moved off quite freely under a good export movement. Europe took largely of choice bright Chevalier, owing to poor crops in England, France and Germany. Australia took more than last year. The East drew quite freely the forepart of the season of choice brewing, due to exaggerated reports of damage to the crop in Canada and in the Central States.

The crop in this State the past year was very heavy, aggregating fully 50,000 tons more than that of 1887. The low stage of water in the San Joaquin and Sacramento rivers in the spring months admitted of a very large acreage being seeded on bottom lands—lands subjected to overflow. Besides this, there was an increased acreage seeded to barley in the coast counties. Owing to the damp, spraying weather during the last three weeks before harvest, there were more dark grades of barley, thus increasing the supply of feed. That the consumption of feed is increasing is witnessed in the large yearly additions to the work-horses in use on the vineyards, orchards, and in railroad construction and general teaming in all parts of the State. Besides the above, it is growing in favor as a feed for the dairy and other purposes when crushed or ground. The consumption last year was very heavy, larger proportionately than in 1887, owing to the dry weather and poor pasture for several months preceding the month of December.

Prices opened the year 1888 fairly firm and changed very little, except during the dry spells, throughout the year. The year, without doubt, showed more stability, with less fluctuations, than ever before marked the market. These changes have been so few and of such insignificance as not to demand any particular review. The year closed fairly steady for both feed and brewing.

The exports of barley from this port last year were as follows:

Months.	Centals.
January	146,066
February	200,960
March	187,147
April	22,536
May	21,746
June	15,534
July	101,724
August	87,305
September	504,977
October	209,165
November	121,464
December	1,690,055

Total 493,457
1887 969,343
1885 278,057

The above are the heaviest shipments within the history of the State. The destinations were as follows: New York, by sea, 316,592 cts.; overland, 665,989; United Kingdom, 425,411; Australia, 145,699; New Zealand, 3183; Hawaiian islands, 120,175; elsewhere, 13,906.

Oats.

The crop last year in Oregon and Washington was very heavy, largely in excess of their

wants, necessitating heavy shipments to city. These shipments, combined with the price of feed barley, caused values to shrink from the high prices that ruled the first half of the year. With continued free receipts and buyers only taking in a hand-to-mouth way, set values on the down grade until the year closed on a lower range than has ruled for several seasons past. It is claimed that the very low prices, with the market largely overstocked, will cause a lessened acreage to be seeded in both Oregon and Washington Territory.

Corn.

Under light supplies and a good steady demand, the market, the forepart of 1888, held to firm prices. The high prices restricted to some extent the consumption. The high range of values caused more attention to be paid in the favored corn-growing sections to planting corn, and as a result the crop of Californian last year was among the largest on record. With a very large crop in the corn belt of the Central States, prices declined there the last quarter of the year, causing sellers to offer Nebraska corn for early delivery at a decided shading in values. This action necessitated concessions by California growers, which was taken advantage of by dealers and consumers to hammer prices to lower levels. This was done by confining their purchases and bidding low prices for every parcel offered on the market, only paying full asking prices when pressed by actual and immediate requirements. The year closed at such a low range of values as to preclude the possibility of heavy shipments from the central markets unless our market recovers somewhat, or the former markets shade off some.

Rye.

The year opened at high prices, \$2.50 to \$2.75 being the range of values. The market held up fairly well, only settling as harvest approached. The high prices lessened the consumption and caused, in some localities, more to be seeded to rye. The new crop came on an unsteady market with buyers offish. Under a stronger selling pressure and some Eastern coming on the market, prices settled only to recover again, closing the year fairly firm under stronger holding.

Buckwheat.

The market throughout 1888 ruled very strong, with the year closing on high prices, \$2.90 to \$3.25 per cental. The consumption is steadily increasing, which calls for more attention to its cultivation.

Stocks of Grain, Etc., in the State.

The San Francisco Produce Exchange has issued the following report of grain, etc., remaining in this State December 1, 1888.

LOCALITIES.	Flour, bbls.	Wheat, cts.	Barley, cts.	Oats, cts.	Beans, bks.	Corn, cts.	Rye, cts.
San Francisco and Oakland wharf, including grain aboard in harbor.	27,605	1,067.34	986,370	73,400	71,440	8,967	600
Marin, Sonoma, Lake Mendocino and Humboldt.	3,015	18,400	42,100	28,000	1,170	2,330	50
Napa, Soano, Yuba, Colusa, Butte, Tehama, Placer, Amador.	11,500	2,675.410	411,000	304,900	1,375	1,100	100
Sacramento, Yuba, Sutter, Colusa, Placer, Yuba, Amador.	24,200	2,638,740	304,900	304,900	2,300	5,550	100
Contra Costa and Alameda.	600	2,338.740	367,400	4,200	1,500	4,100	100
San Joaquin, Stanislaus, Merced, Fresno, Tulare and Kern.	17,515	2,233,930	314,950	1,034,098	2,300	4,100	1,050
San Luis Obispo, Santa Clara, San Benito, Santa Cruz and Monterey.	7,042	434,210	1,034,098	11,500	8,350	1,650	1,240
San Luis Obispo, Santa Barbara, Ventura, Los Angeles, San Bernardino and San Diego.	4,265	333,000	636,500	1,525	149,000	239,000	1,100
Totals	95,906	10,819,630	4,087,030	1,201,175	233,320	206,747	7,040
July 1, 1888	71,030	3,881,900	2,068,450	67,000	33,575	82,200	800
January 1, 1888	69,975	9,730,000	65,880	109,925	121,300	4,350	4,350
July 1, 1887	50,975	7,712,000	4,705,500	4,400	74,405	72,330	1,350
January 1, 1887	89,606	7,819,800	2,950,290	4,400	343,550	186,650	4,650
July 1, 1886	107,335	13,262,600	1,114,800	31,150	103,700	57,625	1,080
October 1, 1885	107,180	13,262,639	1,050,150	107,440	81,280	72,100	32,575
July 1, 1885	70,800	5,382,900	608,180	106,110	106,110	44,433	30,000
January 1, 1885	157,880	16,892,200	1,033,300	304,710	146,475	16,110	30,000
July 1, 1884	112,600	6,064,050	404,350	38,430	53,050	51,250	85,910
January 1, 1884	177,500	6,936,725	2,404,190	149,350			

plies to large consuming centers direct, which, of course, do not figure in the receipts at this port. The production in this State was not as large of bran and middlings as it was in 1887, but that of ground and rolled barley was more. With many the latter is growing in favor, being preferred when mixed with out feed. With heavy rains and improving pasture in December the demand for ground feed fell off, but prices were fairly well maintained under lessened receipts.

Hay.

By reference to the receipts of produce, it will be noticed that there was a marked increase at this port in last year compared with 1887. This, no doubt, was due to the extreme dry weather in the latter part of the summer months following a poor natural pasture season in the spring months. The unfavorable weather in the spring caused producers to advance their views, and made feeders more anxious to contract for liberal supplies. Several dairymen, it is claimed, contracted for from 500 tons up to 1000 tons at from \$10 to \$12 a ton, according to quality and cost of delivery. These high prices naturally induced a larger acreage of grain to be out for hay than otherwise would. With cool, spraying weather in part of May and June causing an improvement in pasture, large feeders reduced their bids on hay under free-selling offers, and fully \$2 a ton less was paid than ruled previous to the better-growing weather. The consumption in this State was considerably larger last year than in 1887, due to poor pasture and the high prices of butter inducing more feeding to dairy cows. There were also more horses fed, estimated at fully 25 per cent over 1887. The crop of hay in 1888 is claimed to have been fully one-third greater than that of 1887, but notwithstanding which the supply in the State at the close of the year is quite light. The light obtainable supplies was an important factor in keeping up prices in December in the face of improving pastures under favorable growing weather.

Bags.

The following table gives the importation into this port of Calcutta bags, the consumption and the lowest and highest prices since 1870:

Year.	Imports.	Consumption.	Highest Prices.	Lowest Prices.
1870	5,711,000	6,500,000	13	21
1871	5,714,000	5,400,000	13	14
1872	13,512,000	12,000,000	18	14
1873	8,708,000	10,398,000	16	12
1874	16,052,882	15,002,883	13	14
1875	12,500,000	13,000,000	12	10
1876	15,040,000	20,888,407	13	8
1877	10,652,864	21,400,000	13	8
1878	13,608,000	24,104,069	14	7
1879	17,536,000	38,111,550	11	7
1880	32,342,000	30,000,000	11	8
1881	30,614,000	27,000,000	9	7
1882	18,630,000	20,000,000	10	8
1883	25,282,000	37,821,000	8	7
1884	31,221,000	29,000,000	7	5
1885	26,580,000	35,000,000	6	4
1886	25,500,000	32,000,000	10	4
1887	27,733,000	33,000,000	8	4
1888	24,150,000		8	6

The market opened in 1888 at 8 cents spot. Sales were very brisk in January and February for future delivery, ranging from 7 to 8 cents. The latter figure ruled the forepart of February, but toward the close of that month values shaded off under a dry-weather scare. In March values moved up to 8½ and 8¾ cents buyer June. In April the price set back one-quarter cent. Toward the close of that month sales were made at 7½ cents, with a still further reduction in May, or as low as 6½ cents, under continued dry weather. With better crop reports the market advanced in June to as high as 7½ cents for spot parcels and 8 to 8½ cents on Call. At the close of June values set off one-half cent under heavy receipts and Call Board contracts maturing causing large quantities to be thrown on the market. Prices advanced again, reaching 8½ cents in July. After that month values gradually settled up to December, when an improved tone set in and a slight advance was obtained. For June-July delivery sales were made as low as 7 to 7½ cents, but afterward advanced to 7½ and 7¾ cents. The primary market is reported to be very strong, causing importers to be firm in their advanced views.

Cabbages.

High prices which ruled from November, 1886, to March, 1887, and from November, 1887, to March, 1888, stimulated gardeners to put in larger crops, and consequently supplies have been so far in excess of the demand, causing a low range of values. In December, 1887, prices were as high as \$1.25 to \$1.35 per 100 pounds, under a strong Eastern demand, but at no time in December, 1888, have prices advanced to over 60 cents per 100 pounds. The demand from the markets in the Central States has so far this year been disappointing, owing to better crops there and high overland freights being against shipments.

For root vegetables the past year was strong the first few months under light supplies, but with the new crop values weakened off and have remained at the lower levels the remainder of the year under large supplies and only a fair consumption demand.

Potatoes.

The market opened strong and held firm until well into March, when with increasing supplies and more new coming in, values began to shade off and by July quite a low range of values ruled, followed by further shading in August and September under very large receipts from all producing centers in this State, Oregon and Washington. Many points that drew direct from here in 1887 obtained their sup-

plies from other places, which, of course, caused our market to feel the unfavorable effect of a lessened outlet. The crop on this coast last year was the largest on record, with the quality being uniformly good. The fore part of the season heavy shipments of new were made to the large distribution markets in the Central States, principally to Chicago. This trade for new potatoes is growing, and therefore it is expected that the coming season the shipments of new overland will be largely in excess of the like time in 1887.

Onions.

The market opened in 1888 strong under a good demand and light supplies. Under the stimulus of high prices and favorable planting weather, there was a large increased acreage set to onions, not only in this State, but also in Oregon. Like potatoes, onions held well up until the new season opened, when prices fell off quite rapidly, from which they did not recover the remainder of the year. The heavy production created stronger selling pressure, which sent many points that have drawn their supplies from hence to the large producing sections, from whence shipments were made direct to the demand markets.

Fruits.

It is to be regretted that data cannot be obtained so as to correctly give the number of the different kinds of bearing fruit trees, the number that will come into bearing this year, also the number set out in 1888. There can be no doubt but the increase in bearing trees will be quite large this year, and that, too, of the best known variety of each kind of fruit. The number of bearing trees last year is placed at about 12,000,000. That this is none too large is attested in the heavy shipments of green fruits to the East, the large quantity dried and also the large quantity canned. An exchange says that the Fruit Union largely increased the quantity of green deciduous fruits shipped out of the State and the outside fruit shippers had a splendid year. The Southern Pacific Co. handled altogether 2184 carloads, or 1,616 160 packages of fruit, aggregating a total of 43,681,180 pounds, on which were paid freight charges of \$840,840. If a total of 50 carloads be estimated as the amount handled by the Atchison, Topeka & Santa Fe out of the State and as many more by steamer—the actual figures in either case not being obtainable—there would be altogether fully 45,000,000 pounds as representing the total green deciduous fruit export from California, or at least 10,000,000 pounds more than last year. The California Fruit Union began its shipments of green fruit to the East for the season of 1888 in the early part of May. All the fruit shipments up to June 20th went forward in single cars attached to the regular overland passenger trains, which was formerly the chief means of shipping. About 60 carloads were forwarded in this manner, consisting of cherries, early apricots and peaches. Of these about 50 cars went to Chicago and were sold at private sale, and the others went to New York. From June 21st to October 1st the movement of green fruits to the East was very brisk, and 416 carloads were disposed of at auction in Chicago and over 50 carloads in New York. The sales made at Boston amounted to 77 cars, while in Minneapolis there were sold 72 cars and in St. Paul 23. These are all Fruit Union figures and have nothing to do with outside shipments. In all, the California Fruit Union handled 850 carloads of fruit, or about 100 more than in 1887. The average carload sent East last season was 850 boxes of 20 pounds of fruit net. The average cost of fruit packages for Eastern shipment was as follows: Pear boxes, 10 cents; peach boxes, 5½, 6, 6½ and 7 cents, according to size; plum boxes, 5½ to 6 cents; cherry boxes, average 5 cents; grape crates, single or half, including four baskets, 17 cents; double or whole, including eight baskets, 21 cents. Last season the expense of packing grapes was heavy, equal to about one cent a pound, owing to the poor condition of much of the fruit, each bunch having to be handled and the poor and unburned fruit trimmed out. With a good crop in the coming season it is confidently hoped by the shippers that fully 60,000,000 pounds of green fruits can be sent to the East this year. The New York shipments will be much heavier, as good returns are realized there and there is a very active demand at all times for California fruits. The orange crop of last season reached very nearly 1,000,000 boxes. It is estimated that the total orange crop of the present season will be 1,200,000 boxes, of which about one-third will go for home consumption.

The following remarks by a member of a prominent firm dealing in fruits give a fair, succinct report of the dried fruit market: "As compared with last year, 1888 has been a poor one taking it altogether, but then last year was remarkable for the extraordinary prices obtained, especially in dried fruits. Large stocks of dried fruits were carried over to this year on the Eastern market, and the still larger crops produced this year of everything except apricots, one would have thought, would have ruined dried fruit men. Still, prices remained tolerably good till about 60 days ago. Now the market is badly demoralized in dried fruit of all kinds. A good deal of this surplus will now come into consumption to the relief of the market, and next year's business will depend entirely upon the crop. Certainly more than three-fourths of the California dried fruit is consumed outside the State. Most of it goes East, though Oregon and Washington Territory

consume a good deal. The extremely low prices at which dried fruit is now being offered to housekeepers, all over the country, will make new markets for our product, and will do much to offset the undoubted frequent large losses of this year. Our export trade in dried fruits has been pretty well limited to Australia. Freight rates are cheaper to Liverpool than to Chicago or New York, and I have great faith in the effort being made to create a market in London. The dealers have done well in green fruit this year as a rule, and have every reason for being hopeful of the future."

The past year witnessed a most decided improvement in the dried-fruit pack of our principal driers, and therefore it is safe to state that their name on future packs will have great weight with buyers, and if the fruit sustains the reputation earned will command higher prices than unknown packs. But then much can be done in sustaining and promoting the different packs of California dried fruits by the recently formed Dried Fruit Association, John T. Cutting, general manager. Although at the start the association has had no influence on the market, it is believed that it will have an effect in coming seasons. It was organized last year, after three-fourths of the crop had been shipped, so that there was really no chance to demonstrate its utility. That the producers have faith in it is amply proved by the numberless subscriptions that have been flowing in daily of late from various sources.

The Eastern dried-fruit market has shown great dullness as compared with the preceding season, owing to the big fruit crops east of the Mississippi. Prices were by no means as high as in 1887, which, owing to the failure of crops in the East, were almost fabulous. The prevailing rates have been: Evaporated peaches, 8½ to 9 cents a pound; prunes, 6 to 10 cents, according to size; peeled peaches, 14 to 16 cents; pitted plums, 11 to 13 cents. One lot of 1500 tons of California evaporated silver prunes sold in New York at 15 cents a pound. The New York market for French prunes has been dull and neglected. The crop in France last year was not excessive, but the fruit ran very low in size. A peculiar feature of the French prunes was their poor keeping quality, while the California prunes of the season were handled without injury.

The canned-fruit industry continues to make rapid strides. The pack in 1888 is placed by the best-known authority at the following figures: Two and a half pound table fruits, 1,225,000 cases, 2 dozen each; gallon table fruits, 12,000 cases, 1 dozen each; 2½ pound pie fruits, 32,000 cases, 2 dozen each; gallon pie fruit, 47,000 cases, 1 dozen each; 2 pound vegetables, 35,000 cases, 2 dozen each; 2½ pound vegetables, 135,000 cases, 2 dozen each; gallon vegetables, 8000 cases, 1 dozen each; 2 pound jam and jellies, 32,000 cases, 2 dozen each. California canned fruits are making inroads at a rapid rate into the trade of all competitors, with the best-known packs fetching good round prices over all others. The demand continues to grow and the distribution points at home and abroad increase in numbers. The stock in the State at the close of the year is quite light.

The raisin industry of this State continues to grow in importance and bids fair in the near future not only to drive the foreign raisin out of the American market, but also make large inroads into the markets abroad, now controlled by the Spanish production. To this end our packers must exercise the utmost vigilance in putting up uniform grades and branding or marking each package so that no mistake can be made as to the quality. In this connection the following remarks by G. W. Meade & Co. are deserving of careful attention by all packers: "Now that all first class packed raisins in California are well established in the Eastern markets, it is to be hoped that our packers the coming year will not pursue the senseless policy which seems to have guided them to a large extent in the past, but will hold their goods, whose equal the Malaga, at a price that is equal to the Malaga, and not anywhere from 10 to 40 per cent under the figures obtained from the Spanish product. There is no reason now whatever for doing this. There might have been some reason when California raisins were first introduced, but that time has now gone by. A first-class California raisin is equal or superior to anything that now comes from Spain; and when our packers realize this, and demand for their goods an equal price for an equal quality, they will get it; but just as long as they throw their goods away, and climb over the backs of one another to see who can sell the cheapest, just so long will the Eastern wholesale jobber go into New York and pay a fancy price for a Malaga London Layer, and then offer a ridiculously low price for a California London Layer, which, in every respect, is as good or better. The imitation of foreign wrappers is being generally discarded, and something more distinctively Californian is being used year by year, which is a very pleasing fact to note. We wish, however, that our packers would agree, which we think could easily be done at a meeting, to drop entirely the terms Three Crown Loose or Three Crown London Layer, and to adopt something more distinctively Californian or American. The bulk of the pack of California raisins this year has principally gone East, and at the present time the San Francisco market is almost entirely bare of stock. Especially does this apply to London Layers, and of really choice Loose the supply is also inadequate."

Shipments were made the past year of California raisins to Australia and also to England, and so far as can be ascertained the venture

will lead to freer shipments in 1889 to the same countries.

The year closed with a light stock in this State, smaller, if anything, than on Dec. 31, 1887, and this, too, in the face of a largely increased pack. The prices at which the bulk of the pack was placed are said to have been quite satisfactory.

The overland shipments from Jan. 1, 1888, to Nov. 30, 1888, were as follows:

Months.	Green.	Dried.
January	603,280	261,300
February	3,166,180	343,300
March	5,081,160	221,500
April	4,544,070	95,530
May	960,390	116,510
June	3,004,000	75,690
July	2,530,410	52,610
August	11,987,620	2,358,510
September	6,700,320	5,010,990
October	4,800,250	5,801,530
November	400,960	3,551,170
December (1887)	71,080	711,810
Totals	69,640,800	19,968,400
1887	50,749,750	15,865,050
1888	49,542,020	5,076,630

The shipments of raisins for the year ending Nov. 30, 1888, and the two previous calendar years, were as follows:

From—	Pounds.
San Francisco	618,200
Interior	15,648,880
Total	16,267,080
Year 1887	15,484,550
Year 1888	12,697,330

Following is a comparison of the shipments for the 12 months ending Nov. 30, 1888 and 1887:

Articles.	1887.	1-88.
Green Fruit	51,040,450	52,640,800
Dried Fruit	15,064,280	18,968,400
Raisins	12,799,160	15,648,880

Last year's product of dried fruits is estimated as follows:

Raisins, 20-lb. boxes	1,025,000
Honey, extracted, lbs.	3,000,000
Honey, comb, lbs.	325,000
Beeswax, lbs.	20,000
French prunes, lbs.	2,250,000
German prunes, lbs.	125,000
Apples, sun-dried, lbs.	100,000
Peaches, sun-dried, lbs.	2,500,000
Plums, sun-dried, lbs.	250,000
Pears, sun-dried, lbs.	25,000
Grapes, sun-dried, lbs.	2,250,000
Nectarines, sun-dried, lbs.	100,000
Apricots, sun-dried, lbs.	250,000
Figs, sun-dried, lbs.	75,000
Apples, evaporated, lbs.	250,000
Apricots, bleached, lbs.	2,500,000
Peaches, bleached, peeled, lbs.	400,000

The raisin pack last year is estimated by districts as follows:

District.	Boxes.	Pounds.
Fresno	425,000	8,500,000
Tulare	21,000	4,200,000
Riverside	200,000	4,000,000
Orange, Santa Ana and Tustin	40,000	800,000
San Bernardino, outside of Riverside district	52,000	1,040,000
San Diego	38,000	760,000
Solano and Yuba	125,000	2,500,000
Other localities, Sacramento, Yuba, Placer, Butte, etc.	37,000	740,000
Totals	1,025,000	20,560,000

Nuts.

California nuts are fast gaining recognition at the East as possessing merit superior to the imported, and consequently the trade is beginning to give them preference at the price ruling for the imported. This fact, combined with a more general desire to have as diversified a crop as possible, has caused orchardists in sections where they thrive well to set out the various kinds of nut trees. The past two years witnessed a large increase in the number of almond and walnut trees set out. In sending the nuts to market, more attention is beginning to be paid to their grading and bleaching, which, of course, tells greatly in their favor. With continued attention in this direction, it is asserted with a degree of confidence that does not brook a denial that the California product will supplant the foreign in all the leading centers of trade on this continent.

Olive Oil.

Our native olive-oil industry is in a fair way to cut an important figure among the various industries in this State. Like all of California's products, it should be sold on its own merits and not by an assumed French or other foreign name. Pure goods will always command attention, and when once tried make friends and gain ground on merit. It is asserted with some degree of confidence that one or two parties claiming to put up the oil adulterate it with cotton-seed oil, the same as is now being extensively done at the East and also abroad. If such is the case, their names and methods should be made public, for the industry is too important to be stabbed in the house of its friends. The planting of olive trees is spreading in this State, and before many years the exporting of California olive oil bids fair to be on a large scale.

Honey.

Alternate warm with cold freezing weather in the winter of 1887-88 was against the bees, which was not improved by the dry weather in the spring months of 1888. The crop in this State last year is placed at from 2,750,000 to 3,250,000 pounds of extracted and 300,000 pounds of comb. The market ruled satisfactorily throughout the year to the selling interest, owing to the light crop at the East, although the wholesale adulteration practiced in some of the markets at the East is against the pure product. The shipments to Europe direct from this port do not show any materia

change from 1887. The product is being put up in better shape for handling by the trade, and therefore it is taken the more readily. In referring to the market, G. W. Meade & Co., in their annual circular, say: The output of comb honey, like extracted, has been comparatively light this year, and good prices for choice goods have been pretty readily obtained. We repeat our suggestion of last year, that the sale of California honey, if packed in one-pound frames, could be very largely increased. Eastern and Western dealers are accustomed almost entirely to one-pound frames, and if our honey-producers here would change their style of packing and put up their honey in one-pound frames, we think they would find almost immediately the demand increase two or three times what they are now selling. On some parts of this coast where dealers generally do not pay much attention to small items, the two-pound frame is all right; but when we come in competition with the Eastern honey men, we ought to have our goods in one-pound frames. The stock of both comb and extracted honey here for this season of the year is comparatively light. Large shipments of extracted have been made to Europe on direct orders and the comb has been principally placed here and in Eastern cities. We think we shall go into the new crop with a bare market.

Dairy Products.

The receipts of dairy products in 1888, compared with previous years, were as follows:

BUTTER.			
	California.	Eastern.	Totals.
	Pounds.	Pounds.	Pounds.
1888.....	8,376,700	3,597,500	11,974,200
1887.....	9,547,100	733,600	10,280,700
1886.....	9,979,200	67,800	10,047,000
1885.....	8,019,600	494,400	8,514,000
CHEESE.			
	Pounds.	Pounds.	Pounds.
1888.....	3,321,700	1,614,300	4,936,000
1887.....	3,989,400	988,400	4,977,800
1886.....	4,070,900	548,100	4,619,000
1885.....	3,657,500	471,000	4,128,500
EGGS.			
	Dozens.	Dozens.	Dozens.
1888.....	2,210,15	3,168,741	5,378,756
1887.....	1,391,745	1,735,395	3,127,080
1886.....	1,663,200	2,192,900	3,856,100
1885.....	2,778,280	1,154,090	3,932,370

Butter Product.

Butter.—The market opened on January 1, 1888, with the following stock on hand: 315 kegs and 800 cases in rolls, and closed on December 31, 1888, with the following on hand: 709 boxes in rolls; 1240 barrels pickled; 2976 kegs, and of Eastern 2871 packages; so that the stock on hand at the close of the year was very largely in excess of that held at the beginning. The market held to good prices throughout the year. While they did not go into fancy figures they did not touch the low prices they did in 1887, so that on the whole the market was quite satisfactory. The production of butter in this State does not keep pace with the increasing consumption, but then the deficit is met by heavy importations from the Central States. For the first time in the history of the trade, butter in rolls was brought from the Central markets, but the venture did not prove a success, consequently it is not at all likely the shipments will be repeated. The importation of creamery in tubs was largely in excess of any preceding year. As the quality was good the trade took more kindly to it and disposed of large quantities. The market closed the year weak under heavy stocks and large production of California, owing to improved pasture.

Cheese.—The stock on hand at the close of the year was 75,240 lbs. Throughout the year, the market held to good prices—higher on an average than in 1887. This was due to a larger consumption, a lessened production, and only moderate importations from the East—the market there being above the parity of ours.

Eggs.—The market throughout the year was poorly supplied with choice to fancy California eggs, and consequently these were in good demand and ranged from 10 to 30 per cent above the imported. The importation from the central markets last year showed an increase of fully 33 per cent over that of 1887. Of the receipts, this city did not get quite 50 per cent, the balance going direct to other distributive centers. With an improvement in the feed the last two months of the year, receipts of Californian have increased, causing a lowering of values. The stock on hand in this city on Dec. 31st was 4800 dozen California and 54,140 dozen of Eastern.

Hops.

The year 1888 was entered with quite a stock of 1887 hops on this coast, but as the year shortened there were rumors of a probable light crop at the East and an almost certainty of a light yield abroad, owing to unfavorable weather. As these rumors gained confirmation, buyers entered the market and secured all the old hops, and contracted for this year's at from 12½ to 15 cents per pound. As the season advanced they raised the prices to 18 and 20 cents, at which prices large numbers of hop-growers sold. The markets at the East and abroad, still appreciating, brought about a still higher range of values, and as much as 25 cents was paid for something extra for shipment direct to England. This market never was so well cleared up at the close of any year as it was on December 31, 1888. The crop of the coast last year was 90,085 bales, against 76,500 bales in 1887. Of the 90,085 bales, California raised 34,085, Oregon 18,000 and Washington Territory 38,000. Last year Australia drew from hence, 155,668 pounds; Calcutta, 29,083

pounds; Japan, 23,278 pounds; New Zealand, 13,529 pounds; Central America, 10,897 pounds; and other foreign ports on the Pacific, 19,164 pounds. There was sent overland 7,008,270 pounds and 108,505 pounds by sea to New York.

Live-Stock.

The past year was a disappointment to stockmen, owing to prices averaging lower for cattle and sheep than for many years past. This was due to better railroad connections with distant sections that have a large surplus of live-stock, which enabled them to market in this city, and also to the reported cattle ring at the East being broken up. The poor pasturage in this State induced free selling so as to avoid the expense of feeding. Prices under free selling went off from the year's opening from one to two cents a pound for bullocks and also mutton sheep. Toward November the market began to recover, and by the middle of December prices were from 1 to 1½ cents per pound higher than ruled in August. Owing to the low prices under strong selling, with supplies apparently increasing, many cattlemen have been induced to spray their heifers. This has not only been done in parts of this State, but also in Arizona. The packing of beef in barrels and half-barrels was on a larger scale in 1888 than ever before. This was due to the low price of bullocks and a better export and ship demand. More attention was also given to the canning of beef. Fresh milk cows commanded good prices throughout the year for the dairy, but for the family the inquiry was light up to December, when there was quite an improvement in the green feed. Prices ranged for fresh cows from \$25 to \$50, with at times a slight advance paid on the latter price for something above the best average. The market for hogs has ruled strong throughout the year, with very slight change in values. The demand was chiefly for the block, although packers in the season took quite freely. The consumption of fresh pork is very large and increasing. The supply of hogs in the State is quite light, but the high range of values is attracting more attention to the industry. Horses the past year met with a good demand for single-forters at from \$200 to \$350 each, matched teams from \$500 to \$1000 a span, general utility horses at from \$125 to \$300. Large workhorses met with ready sales at from \$500 to \$1000 a span. Common workhorses were in oversupply, consequently buyers had the whip-handle and kept prices down to from \$75 to \$125 each. The above prices were the general average paid.

Seed.

The demand last year for grass seed was disappointing, but prices kept up owing to a general scarcity, particularly alfalfa. With general rains in November and December, a call from all points of the coast sprang up, and a large distribution trade followed. Alfalfa advanced in price, but other seeds were unchanged. It is claimed that there is a decided increase in the acreage seeded to alfalfa. For flaxseed there has been a steady demand, with the market showing few changes in prices. The consumption on this coast is increasing, but the production is also larger. The crop of mustard seed was large of yellow but light of brown. The quality, as a rule, was only fair, causing good prices to obtain for the more choice. The year closed on a firm market.

Wool.

The shipments of wool from San Francisco by sea during the past year were as follows:

To—	Pounds.
New York.....	4,897,566
Massachusetts.....	2,011,283
Connecticut.....	104,757
New Hampshire.....	382,070
British Columbia.....	2,342
Total.....	7,397,988
1887.....	7,394,252
Increase.....	13,736

The total by sea in 1886 was 3,510,330 pounds. Since the completion of the Canadian Pacific Railroad, a large part of the wool shipped from this port by sea for the Eastern States has been sent out by the Victoria steamers and reloaded via Port Moody and the extreme northern route.

The shipments by the Southern Pacific Company's lines during the 12 months ending November 30, 1888, aggregated 22,480,110 lbs., and by sea, 7,397,988; total, 29,878,098, against 28,523,882 lbs. in 1887. The descriptions which made up the overland shipments in 1888 were as follows:

	Pounds.
Grease.....	16,831,600
Pulled.....	1,648,040
Scoured.....	4,000,510
Total.....	22,480,110

A local dealer furnishes the following to the press, which is about as correct as can be learned from others in the trade: "In volume the spring clip fell short about 2,000,000 pounds from that of 1887, but with the better feeling in the fall, shearing was very general, and the amount was fully up to that of the preceding season. We estimate the production of the State as follows: Spring and fall shearing, 31,500,000 pounds; pulled wool, 2,000,000 pounds; total, 33,500,000 pounds. In addition to this, 10,000,000 pounds were received from Oregon, which is an increase over last year from that quarter. From Nevada, Utah and Arizona we received 2,000,000 pounds additional, this being a slight falling off from each section in comparison with the receipts last year. The condition of the spring clip was a

fair average as to shrinkage and freedom from defects, but it was not so well grown or so bright in color as in seasons where the rain was more plentiful. The fall clip was good, being clearer of seed and fully as good in color and shrinkage as in average years. The Oregon clip was not up to its usual average condition, the Eastern Oregon wool especially being very heavy, dusty and unsightly, and a large proportion weak in staple, showing the effects of a lack of rain during the preceding winter, and this also was the case with nearly all the Territory wool received this year. Our scouring-mills have again been a large factor in moving the clip, fully one-third of the entire amount having been sorted and scoured before being sent East, and for the bulk of the Oregon and Territory wool and the dusty clip from this State this is the only way to handle the article in order to realize anything for the growers like a fair value for their clips. The early experiences of all the scouring companies were not very satisfactory, and it required years of patient toil to convince Eastern manufacturers that the work was properly done and the scoured product was ready for their cards without further labor. But this is now beyond being an experiment, and all are now meeting with the success their long experience entitles them to, and with a more liberal policy from the overland transportation company the business could be largely extended and be a benefit to every wool-grower on the coast. The present freight rates on scoured wool being double that of grease wool, seems to be an excessive discrimination against this industry, as the mills are required at an extra expense to press the scoured product so compact as to enable them to put full weight into a car. The stock on hand January 1, 1889, does not exceed 2,000,000 pounds, as against 6,500,000 pounds a year ago. The consumption by the local mills during 1888 was about 4,500,000 pounds."

The average prices of California spring wool were as follows from April to September 1st: Choice northern, 16@18½c per lb.; Sacramento valley and foothill clips, 14@16½c; San Joaquin, 11@13c; Southern Coast, 10@12½c. The shipments of each class were in about equal proportions. Scoured wool, free, 45@48c; defective do, 35@37½c; pulled, 16@20c; Eastern Oregon, 11@17c; Valley Oregon, 18@20c; Nevada and Arizona, 13@16c; Utah, 15@18c; scoured Oregon and Territory, fine, 47@55c; medium, 42@50c; coarse, 38@48c.

After Sept. 1st there was an advance on all spring wools held over of 2@3c per lb. in the grease.

Fall wools.—The average prices of fall wools were as follows: Humboldt and Mendocino (400,000 pounds), 16@18½c per lb.; free mountain, 12@15c; Sacramento valley, 12@14c; San Joaquin, 9@12c; Southern Coast, 8@10c. The only wools of this class shipped in the grease were the Humboldt and Mendocino, and a portion of the free mountain, all the balance being scoured here or used by the local mills. Scoured stocks have ruled at 45@50c per lb. for free and 35@40c for defective.

The year 1888 closed on a strong market with a very light stock of wool in this city. The strength of the market was in sympathy with higher prices at the East brought about by very small supplies of wool—about one-half of the quantity on December 31, 1887—and also a higher and advancing market in Europe, due to light supplies of wool and a large demand from continental and English manufacturers. Even at the advance the English market is above the parity of the New York, Boston and Philadelphia markets.

POULTRY YARD.

Experience in Incubation.

W. M. Barris of the Los Angeles Poultry Ranch writes as follows for the *Cackler* concerning his use of incubators:

I am running at present two machines of 650-egg capacity each (Petaluma). In August, out of the eggs put in, about 70 per cent were fertile. In September about 50 per cent were fertile. Of the August hatch, now six weeks old, I only lost about one per cent of those hatched, and of the September hatch, now one week old, I have not lost more than one-half of one per cent. The eggs in both instances were gathered from farmers promiscuously.

I have made some study of the causes of so many infertile eggs, because the loss is no small one where we have to pay 35 and 40 cents per dozen for eggs, as I did for my September hatch.

If parties interested would take the pains to inquire into the conditions of the fowls from which eggs were obtained, they could easily find the cause. One party using an incubator, who had good success, found upon inquiry that the fowls from which his eggs were obtained were healthy, had plenty of exercise, and cockerels of about one year of age were mated with two-year-old hens.

Another party, who made almost an entire failure, states that though about 65 per cent of his eggs were fertile, nearly every chick perished in the shell, being too weak to break out. Investigation showed that the hens from which his eggs were obtained were mated with broilers and had been inbred for three years. The consequence was, that while there was life in each egg, there was not sufficient vitality in

the chick to enable it to break out. I think that causes such as the above affect the fertility of the eggs and vitality of the chicks more than any others.

But there are other reasons for not obtaining full hatches. Eggs from very young pullets scarcely ever turn out well; neither do eggs from very fat hens; yet they may be fertile. Frequent handling, chilling, a slight fall or jar, and delay in placing them in the incubators, affect the result. I aim to place eggs which are not over a week old, although others claim that an egg not over three weeks old is all right.

Messrs. Ray & Warren, in the article above mentioned, speak about the chicks standing about the fountains drinking till they die. Perhaps the difficulty is that they give them water too soon after hatching.

I am well satisfied with the results from my manner of feeding which I now give. In the first place I call attention to the difference of opinion in regard to feeding eggs. Some say that nothing is equal to it and that it should be kept up for ten days; others condemn it altogether. I have adopted a medium. From the very first I take the whole egg boiled, not too hard, and chop it up (white, yolk and shell) very fine, and then add bread-crumbs sufficient to make the mass crumbly. I feed nothing else for two days. After that I put with the bread-crumbs oatmeal or cracked wheat, alternately, working out the eggs gradually, so that at the end of a week no more egg is used. I do not let them have any water at all for four or five days. Should they be attacked with diarrhea before this, commence giving them water with unslacked lime in it. Lime in the water is the best remedy for diarrhea at any time. During the second week I feed them rice, oatmeal, boiled cracked wheat and mashed potatoes. I do not mix them, but feed one of them at a time. I think the changes make them relish their food better. First meal during the third week I give bran scalded with hot milk or hot water (milk is preferable) mixed with oatmeal or cracked wheat. At one of the daily meals during this week, I chop up cooked meat mixed with oatmeal or cracked wheat. At another meal I give mashed potatoes mixed with cabbage chopped fine, and about twice during the week change to onions. I find they eat the green food better mixed with something else. I feed every two hours during the first week, every three hours during the second and third weeks. After this I feed every four hours until three months old, as follows: First, warm mash of bran or of bran and vegetables mixed; second, feed at ten o'clock, whole wheat; third, feed at two o'clock, green feed; fourth, five o'clock, whole wheat. Rice, oatmeal and cracked wheat may appear to be too expensive, but if you try it you will find it will pay, and pay big.

In conclusion I would say to our friends, do not give up on account of difficulties. These ought to make us more thoughtful and teach us more than if we were successful. I do not expect satisfactory results with my incubators until I have hens enough of my own, properly mated, to supply me with eggs. Until that time I intend to seek out a few farmers who have healthy fowls, properly mated, and engage eggs from them, even if I have to pay more for them.

POULTRY IN THE ORCHARD.—While it is undisputed that an orchard is one of the best places in the world in which to establish a poultry-yard, we have also found that poultry is good for trees. We have 16 Shockley apple trees, seven years old, standing in and around the poultry-yard. Some of them standing directly in the runs of the fowls have as many apples on them as any five on the outside. This is conclusive evidence that the one is beneficial to the other. The chickens destroy all bugs and insects that prey upon the trees and fruit; at the same time they keep down all grass and weeds and keep the surface of the ground well scratched up and in a mellow condition, thus promoting the health and vigor of the trees, causing them to bear larger and better fruit. Some of the trees in our yard are literally hanging with nice apples, and so heavily laden that we are compelled to keep the trees well propped to keep them from breaking down. Shade is one of the indispensables about a poultry-yard in the summer months, and it is certainly better and more profitable to have some good variety of fruit. We at the same time get the needed shade and a bountiful supply of delicious fruit, if of the same kind. We should certainly advise all to have orchards for poultry and poultry for orchards, for the one will be greatly benefited by the other.—*Poultry Guide*.

STEEL-WIRE MATS, a new article in metal-lurgical industry, are fast coming into use. They are made from steel wire, with steel frame and steel braces, all perfectly galvanized, and are wear and weather proof, are self-cleaning, require no shaking, and by the slightest scrape, snow, ice, mud, clay and water are wiped out of sight.

CASTOR-OIL LEAVES, fresh from the plant, bruised or rubbed in the hands, and then stuffed tightly into a stiff boot or shoe and left to remain for 12 or 24 hours, according to the character of the leather, will render the same quite supple—so it is said.

The largest carpet in the world has been on exhibition at the Cincinnati exposition. It contains 2700 square yards.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

MUCH GRAIN SOWN.—*Oakland Enquirer*, Dec. 29: The acreage that will be plowed and seeded to grain this year in this county promises to be greater than any year heretofore. If the weather continues warm for some weeks and there is not too great a rainfall, farmers will be able to get in the balance of their lands and the prospects are that all land heretofore cultivated will be plowed and planted this year and also a large amount of hill land that had never been before broken. Good crops of a very fine quality are always produced on hillside farms, during a year when there has been an average rainfall, and during a heavy downpour these lands produce as heavy a yield as the average low lands, and the quality is far superior. When there is too much rain the crops planted on the low lands are apt to be injured if not completely ruined. It is said the acreage of grain sown in the vicinity of Mt. Eden will be larger this year than has been known for six years past. All along the bay from the lower end of the county to Melrose the low lands are being plowed, and in Contra Costa county from North Oakland to northward the lands lying between the bay and the foothills are being cultivated and farmers are already beginning to complain that the price of hay and grain will be so low that they will not make anything.

Fresno.

RAISIN OUTPUT.—*Fresno Expositor*, Jan. 2: We desire to call attention to the glaring mistakes of some parties who have made estimates of the output of raisins from this county. We have only been credited with an exportation of some 400 carloads or 8,000,000 lbs. The actual and official figures are as follows: From Fresno, 6,850,000 lbs.; from other stations in the county, 3,803,270 lbs.; a total of 10,653,270 lbs. Allowing 20 lbs. to a box and 1000 boxes to the carload, the accepted estimate, we have 532 carloads and a trifle over. This is an increase over last year of 4,388,770 lbs., or over 220 carloads.

SHEEP OUTLOOK.—W. W. Shipp, one of the oldest sheep-raisers in the county, was to-day asked the prospects of a sheep crop for the coming season. "Never better; never better, sir. This is my 21st year in the business in this county. I came here in 1867, and have experienced many good and many bad years in my business, as you may judge. I have 4600 sheep this season. They commence to lamb between the 25th of January and the 1st of February. The feed is at least a month ahead of last season, and is at its very best when we want it. Everything is favorable for a good lambing season all over the country."

Inyo.

IN OWENS VALLEY.—*Independent*, Dec. 29: So far, stockmen in Owens valley have not fed any hay to their cattle this season. There is plenty of good feed on the pastures and grass is still making good growth. During the past few weeks alfalfa has made good growth; the recent warm rain has been very favorable. At his place at George's Creek, James R. Moffat planted some young Monterey cypress trees two years ago. They have made fine growth and are now beautiful trees. It was doubted if Monterey cypress would grow in Owens valley, but Mr. Moffat has removed the doubt; and last winter was the coldest known here in many years. Mr. McIver, sup't of the East-side canal, has ordered 30,000 grape-cuttings for setting out on his own land in the spring. The cuttings will come from Woodland and Davisville. A good deal of work is being done improving the grade and straightening and widening Stevens ditch. The ditch will be in good condition to supply water for several thousand acres of land early in the spring. The land and canal are now valuable property and their values will rapidly increase.

HORSE-BREEDING.—W. S. Enos is rapidly growing up a fine stock of horses. He now has 70 head of brood mares; among these are quite a number of the best strains of various breeds. He has a few very promising colts from the celebrated horse Fallis, recently taken to Kentucky under a contract for breeding. Mr. Enos contemplates going East soon for an imported Percheron stallion. Should he do so, he will bring here a first-class horse that will be of great value to the country. Several horse-raisers have offered Mr. Enos to breed a large number of mares to the horse he may bring.

Kern.

SEEKING PASTURE.—*Bakersfield Echo*, Jan. 3: Some gentlemen engaged in the butcher business in Fresno have recently been here looking for alfalfa lands on which to fatten cattle and sheep for their markets. It has been known in all the adjoining counties for years that Kern was the Egypt of the State for feed in years of scarcity. Those wanting hay or temporary pasture naturally turn this way. If now, as seems probable, butchers have awakened to the value of a Kern county alfalfa-field as a backing to their business—pastures where they may place thin cattle and sheep for fattening—a new value will be given to our lands for that purpose.

MUCH GRAIN SOWN.—Heretofore the wheat-fields of Kern have been dwarfed by the vast area of alfalfa; but from present appearances the acreage sown to wheat and barley this year

will cut no unimportant figure. In the Delano and Poso Creek countries a very large amount of unirrigated land is being seeded, and should the rains continue through the spring months the yield of hay and thrashed grain will be an important factor in the county's export this year. Many of these grain farmers are living on homestead and pre-emption claims, and a liberal crop will be a welcome boon to them. There is little more than the usual amount being sown on irrigated lands, but in the mountain valleys the fields are being extended to their utmost.

Los Angeles.

POMOLOGISTS IN COUNCIL.—U. A. P. dispatch, Santa Ana, Jan. 3: The regular meeting of the Los Angeles Co. Pomological Society was held at Neill's hall this afternoon and evening. The address of welcome was delivered by Prof. Manley, sup't of the city schools. Interesting papers and discussions were had upon "Scale Pests and Their Remedies," "The Culture of Prunes in Southern California," "The Marketing of Fruits in Southern California," "Climatic Phenomena and Deciduous Tree Culture," etc. The attendance from a distance was fair, but of citizens, small. A display of fruits and products of the valley, neatly arranged, attracted universal attention.

Modoc.

CATTLE NOTES.—*Alturas Independent*, Dec. 27: Stock-raisers and farmers in this vicinity are unanimous in the opinion that the winter so far is all that could be desired. We understand that only a small number of beef cattle are being fed this winter. In the vicinity of Fort Bidwell Peter Peterson is feeding a small lot to supply a contract. In the lower end of the valley H. L. Merrifield, R. W. Minto and one or two others are feeding small lots. The South Fork cattle-men are busy riding over the range and getting the cattle into the valley. They will be turned into the fields and swamps, where there is excellent feed. C. W. Williams of South Fork was in town yesterday. He informs us that in his section a great many cattle have been gathered in, but the majority of them are still on the outside, and he thinks it will probably be the middle or last of January before the range is clear.

GOOD SIZED HOGS.—W. B. Whittemore of Fort Bidwell butchered 17 hogs last week, and their average weight was 282 pounds dressed. The largest of the lot weighed 465 pounds. The amount of lard obtained was an average of 42 pounds to the hog. If any of our hog-raisers can beat this we would be glad to hear from them.

Nevada.

BARREN HILL NURSERIES.—*Nevada City Herald*: Nevada City has one institution which is widely known in this and other States of the Union; it is also known in other countries. The institution is Barren Hill Nursery, owned by Felix Gillet. It is known chiefly for the superior trees, plants and shrubs it sends forth. Mr. Gillet sends out only the choicest varieties, and the demand exceeds his means of supply four-fold. He has this season accepted orders for 20,000 prune trees and 3000 walnut trees, mostly for Southern California. He has had to decline orders aggregating five times that amount. His walnut and prune trees he imports from France. The specimens of walnuts he has on hand speak for themselves. Mr. Gillet started in a few years since on a barren hill, the soil from which had been washed for gold. He has persevered and made it a garden-spot unexcelled anywhere. The most of it is the result of the work of his own hands. It is a living example of what knowledge and labor will accomplish in California. The place will well repay a visit.

San Bernardino.

SOLD ON THE TREES.—*Ontario Record*, Dec. 26: A. Oakley has sold the oranges on his 10-acre lot, the Holt orchard, for \$3.25 per box. The purchaser is J. Sterovich of Los Angeles, who takes the crop on the trees and pays the figures named for the entire lot. That seems a good price, and we understand that it is as high as is being offered at Riverside; but then Ontario Navels and Mediterranean Sweeties are equal to the best.

San Diego.

SWEET POTATOES.—*Fallbrook Cor. Union*: At J. W. Cheatham's office there is on exhibition a hill of sweet potatoes adhering to a single root which weighed 50 pounds when first unearthed. One sweet potato weighing 16 pounds was an object of curiosity at the same office some time ago.

San Joaquin.

THE MOKELUMNE DAM.—*Lodi Sentinel*: The Mokelumne Ditch & Irrigation Co.'s dam is situated a few yards below Westmoreland's bridge, the banks of the river at that place being solid rock. The dam, a small portion of which was built a number of years ago, is 277 feet long, 40 wide at the base, and 7 feet wide at the top, and is 32 feet high. It is built of rock and cement, containing over 8000 cubic yards of material. At the east end of the dam is a solid stone pier, 30 feet long, 10 feet wide and 22 feet high, between which and the stone bank is the headgate, 34 feet long, built of best and heaviest timber, firmly cemented and mortised into the rock at the bottom and sides. From here the canal, 32 feet wide on the bottom, is cut through solid rock for some distance. About 55 yards from the headgate is the waste-gate, 16 feet wide, which, like the headgate, is built of heavy timber, and is cemented and mortised between two massive stone pillars, and is there to stay. From this gate to the

river is constructed a fish-ladder substantially built of redwood, the sides and bottom being of three-inch plank. It is 108 feet long, 5 feet wide and 22 inches deep, the pitch being one foot in four. At intervals of two feet on each side of the ladder are built aprons three feet long, slanting toward the waste-gate, thus breaking the force of the current so the fish can "go up the flume."

Santa Clara.

AGRICULTURAL SOCIETY.—*Herald*, Jan. 4: The Santa Clara Valley Agricultural Society held its annual meeting yesterday, 38 life members being present. The report of Sec'y G. H. Bragg showed total receipts for the society, \$14,414.06; total disbursements, \$13,889.53; balance on hand, \$524.53. D. J. Murphy was elected September 10th to fill the vacancy caused by the death of Director H. W. Seale. During the year three of the oldest members have died, viz.: H. W. Seale, L. R. Mills and A. S. Beatty. The report was accepted. N. B. Edwards, T. S. Montgomery and Wm. Buckley were appointed a committee to examine the report and the books of the secretary and report at the next meeting of the directors. The following officers were elected: President, E. Topham (re-elected); directors, three-year-term, Wm. Boots and D. J. Murphy. Mr. Chase moved to strike from the constitution the clause requiring that the officers of the association be residents of the county. The motion, which required a two-thirds vote to carry, was lost by a vote of 24 to 13. The meeting then adjourned.

Santa Cruz.

MODEL SLAUGHTER-HOUSE.—H. C. Peckham has just finished a new slaughter house, beyond the lower Salapuedes bridge, and it is the most finely equipped we have seen. Everything connected with the building is arranged in a systematic manner, so as to prevent as much hard work as possible. The meat is hauled up to be dressed and moved from one place to another by a system of pulleys; the various yards are arranged so that the cattle can easily be driven into the house, and the place is a perfect network of doors, each one being for some purpose. The building is so constructed that it has perfect drainage and can always be kept clean. A few yards from the slaughter-house is a large and convenient barn with a great number of cattle-stalls. The Salapuedes creek borders his place, thereby allowing the stock to drink from the stream of flowing water. Above all, a person may go anywhere around the place in winter without soiling his shoes or being troubled by a stenoh of any kind.

EXCELLENT FLAX.—*Pajaronian*, Dec. 27: Early this year Geo. A. Trafton distributed a lot of flaxseed among farmers of this valley for trial cultivation. The yield in each instance was good and the straw was long and of tough fiber. The seed was sent here by W. M. Hatfield, who has a flax-mill near Menlo Park, San Mateo county, and samples of the flax grown here were sent him for trial. Mr. Hatfield has had long experience in scutching (flax) mills in Canada, is thoroughly posted in the business, and hence his opinion as to the result of the Pajaro valley flax experiments is worthy of much weight. On Monday, Mr. Trafton received a letter from Mr. Hatfield in reference to the flax sent him. He stated that the weather had been against proper rotting of the straw, that his force of employees was new to the business, but that he had been able to give the straw a fair test and had produced a fiber which the owners of the Oakland Cotton-Mill and the Pacific Flax-Mills had pronounced the toughest, longest and best fiber they had ever seen. In this opinion Mr. Hatfield fully concurs. He considers the fiber unequaled. The result of this test has convinced him that Watsonville is the proper site for a scutching and twine mill, and that sufficient flax to keep it in operation the year round can be raised in Pajaro valley. He proposes that a joint stock company of farmers and business men of this valley be formed—say with a capital of \$100,000. He will subscribe 20 or 25 per cent of that amount. Here is another chance to secure a labor-employing factory for our town and a coin-on-delivery crop for our farmers. The lesson of the best factory should not be lost. We trust that Mr. Trafton will call a public meeting in the near future. We want the flax-mill.

Sonoma.

AN APPROPRIATE LABEL.—*Santa Rosa Democrat*: Capt. Guy E. Grosse has had a photograph taken of an olive branch, containing a number of well-developed berries, from his olive orchard on the heights east of this city, copies of which he proposes to distribute among his friends here and patrons in the East. He will also have an engraving made of the picture and use it as a label on his pickled olives.

CHRISTMAS AT SANTA ROSA.—*Cor. Chronicle*: Tomatoes growing in the open air were gathered fresh from gardens on Christmas Day, and served on tables in addition to the regulation turkey and cranberries. Roses and other flowers, blooming almost as luxuriantly as in springtime, decorated houses for the festive occasion. Frost has not yet visited this section, and we have passed from autumn to early spring without a total destruction of vegetation from climatic changes.

Tulare.

NEW YEAR'S IN VISALIA.—*Delta*: Here on the first day of January, 1889, are violets and geraniums, nasturtiums and roses, growing and blooming in the gardens. A splendid growth of fresh green grass, 10 or 12 inches long in

places, covers every pasture, field and roadside, and even decorates the unused parts of our streets, dooryards and gardens. J. B. Smith had ripe grapes for Christmas, and still has some on his vines. In a number of gardens in town ripe tomatoes are still gathered for use, while almost any kind of vegetable can be procured from the Chinese peddlers. Perhaps some of our Eastern friends would like a sample package of our January radishes or lettuce? If so, we can easily accommodate them.

A HANFORD MAN VISITS S. F.—*Cor. Delta*: Our raisin-makers have considerable complaint to make concerning the action of some S. F. commission men to whom they sold their raisins this year. One well-known raisin-grower sent a shipment "below," and got word back that they could not sell his fruit at the figures expected. He boarded the train and went to the city. Hunting up the house of his consignee, he (being personally unknown to the merchant) wanted to buy the goods bearing his own brand. He was told what fine raisins they were, and that they would have to bring the top of the market. "Well," said the granger, "if they are so fine and worth so much, what's the matter of your paying me the price you agreed to? I am the grower of those raisins." The commissioner was struck amidships, as it were, and paid the price he had agreed to, and the old boy of Mussel Slough came home with a smile of satisfaction gleaming from his countenance.

Yuba.

VARIED PRODUCTS.—*Marysville Appeal*, Dec. 28: During the past two weeks the Sutter Fruit Co. has shipped from this city to Fresno over 200 boxes of apples. The same concern has been shipping Marysville oranges for some time past. There are few other spots on the face of the earth that can boast with Yuba county of producing both the apple and the orange to perfection, along with strawberries, blackberries and raspberries, table and wine grapes, apricots, cherries, plums, prunes, pears, persimmons, nectarines, peaches, figs, olives, almonds, raisins, walnuts; in addition to all sorts of vegetables, alfalfa, wheat, barley and other grains.

MARYSVILLE ITEMS.—*Appeal*, Jan. 4: The fine weather of the past two days has made mushrooms very plentiful upon the plains, and large quantities of them have been gathered. A small wagon-load of hay, which took six horses to draw over the muddy roads, was one of the things which the pleasant weather caused to appear on the streets yesterday. Judge J. H. Craddock had a box of oranges packed yesterday and shipped to New York, where they will be put upon the banquet-table of the Elk club, which will be spread on the 9th inst. Mayor Slattery, as a Christmas gift to some friends in Ireland, recently had a large cluster of oranges packed and shipped to them.

ARIZONA.

MIDWINTER MUSCATS AND "GARDEN TRUCK"—*Florence Enterprise*, Dec. 29: Last Sunday Mr. Peter Will plucked from his vines on Main street a fine bunch of Muscat grapes that were of flavor and quality equal to the best productions of the summer season. On his vines there are still several bunches of grapes that will mature within the next two weeks. These vines have been given no special care and they bore the usual crop of summer grapes. This circumstance suggests the feasibility of producing grapes in quantities during the entire winter season, if the subject is properly studied and the necessary conditions supplied. H. G. Ballou has a fine lot of green peas in his garden ready for picking, and the vines are still covered with blossoms and young pods. He also has a full assortment of tender summer vegetables growing, that were planted in October. They will furnish a full supply until the early spring crop begins to take their place.

OREGON.

SOUTHERN JOSEPHINE COUNTY.—*Cor. Grant's Pass Courier*: Commencing at Deer creek, a tributary of the Illinois river, there is some of the finest farming land found, known as the Deer Creek valley, which is about 12 miles long with creeks branching out from it every few miles, containing good farming land on all of them and several magnificent farms. There is also some vacant land on all the branches, but the main Deer Creek valley is about all cleared, and a great quantity of timothy hay, as well as wheat, oats, barley, rye, corn and vegetables, are produced. On the low rolling hills on either side of this valley is one of the finest belts of sugar-pine timber, accessible with wagons, to be found on the Pacific Coast, not mentioning the red and yellow fir, yellow pine, white and black oak, as well as ash, maple and other species of timber. To see the orchards here left to the care they get from horses, cattle and hogs being pastured on them, and yet to behold the immense amount of fruit they bear, is astonishing, and conveys the impression that with proper care and attention this can be made one of the largest producers of choice apples to be found in Southern Oregon. Plums, pears and prunes also grow here to perfection, as well as a large variety of berries. On these low hills is good range for stock, but on the mountains, at the head of these streams, is as fine bunchgrass as the most fastidious stock-raiser could reasonably expect to find, and the many large springs of pure cold water make this one of the most desirable locations for the production of choice grades of horses and cattle.

Cook Stock Farm.

Green Valley, Contra Costa County.

(Written for the RURAL PRESS by J. C. H.)

Although Contra Costa county is situated so near to the metropolis, and contains a large area of the most productive land in California, her great industrial enterprises, her manufacturing and shipping, her orchards, vineyards, stock farms and palatial homes have had but meager notice from the press of our State.

A RURAL reporter made a trip through the county last week. From Martinez, the county seat, 35 miles from our city, southeasterly, there is a succession of small valleys and low hills divided into small farms with neat cottages and a few more imposing edifices, around which are large pear orchards in the valleys, while the hills are set with vines.

From Pacheco, near which are the county fair grounds, the road leads southward through a very productive valley (although fences and residences are in a somewhat dilapidated condition) to the thriving town of Walnut Creek, which takes its name from the many native walnut trees that line its banks. From Walnut Creek the route is south through San Ramon valley, a great broad area of rich alluvial soil that rivals for varied productions and exuberant growth in tree and plant any portion of California. The attention of some of our leading fruitmen—for instance, A. T. Hatch and August Hemme—has been attracted

grove that flowers profusely every year. Mr. Jas. S. Henderson, an experienced horticulturist, has charge of this department. He is of opinion that this section is one of the best in the world for growing fruit and ornamental trees.

The home residence is a large, imposing edifice with broad porticos. The adjacent ravine is spanned by numerous quaint and rustic bridges, and beyond it are the clubhouse, laundry and dairy-house. The latter is most complete in its appointments, with cement floor, marble tables and a fountain of cold mountain water in the center.

The family-carriage barn is 80x125 feet with one large and three small cupolas. The large farm stable for workhorses, carpenter shop, blacksmith shop, wagon and machine shop, 40x250 feet, are situated at convenient distances from each other, while to the right can be seen the great training stable, 80x125 feet, with a walking alley 25 feet wide in the center. The nursery, or colt stable, higher up the valley, is built in a semi-circle 20 feet wide and 500 feet long, in front of which is a large corral. It is constructed with box stalls, each of which is occupied by a pair of the weanlings at night. There were 40 colts in the inclosure, and they soon learn to take the positions assigned them. A neat cottage close by is occupied by the resident trainer.

The brood mares' barn is 60 feet wide by 200 feet long, with a driveway in the center and corrals on each side. There were 30 standard bred trotting mares in the inclosure, 18 of

Each laborer has good rooms with patent hospital beds, which are well provided with clean sheets and ample bed-clothes. It is a significant feature of this farm that a large number of the employes have been there continuously for 8 and 12 years, and have now in savings banks from \$1000 to \$2000 each.

The proprietor, Mr. Seth Cook, has adopted a liberal policy and employed the best talent in securing noted strains of blooded stock, and by such judicious management and reinforcing has gained for the Cook Stock Farm the reputation of having the purest blooded animals with pedigrees and records true and reliable. He has taken pleasure in introducing the highest grades of stock with a view of improving our State, and during all these years his prices have been very low as compared with those of many breeding establishments.

We append a succinct account of the livestock:

Cattle.

SHORTHORNS.—Noble King (Vol. 34), at the head of the herd, is by Imp. King of Aberdeen; four other bulls and 24 recorded cows.

DEVONS.—At the head of the Devon herd is imported Charming Lad, 4231. Calved Jan. 31, 1885. Bred by A. C. Skinner of Taunton, England. Sire, Lord Currypool (1589), by Lord Stowey (1601). Dam, Charmer (5151), by Druid (1317). G. D. Chivey (3279), bred by W. Cook of Coveithome Tiverton. Charming Lad won first prize at the Illinois State Fair, 1887, in the two-year-old class. He was placed second in the three-year-old class at the same

Imported August, 1887. Sire, Salesman (4) Dam by Lucks All (187).

Barrowby Lass. Foaled spring, 1883. Imported August, 1886. Sire, Sportsman (299). Dam by Champion of England (55).

Kaiserin. Foaled spring, 1883. Imported July, 1885. Sire, Emcorer (377). Dam by Champion of England (55).

Queen of Trumps. Foaled spring, 1882. Imported July, 1886. Sire, The General. Dam, Polly.

Lady Hilton. Foaled Feb. 10, 1887. Bred by Seth Cook, Danville, Cal. Sire, Baron Hilton (584). Dam, Kaiserin.

Bay Queen. Foaled May 23, 1887. Bred by Stericker Bros. Springfield, Ill. Sire, Herdsman (620). Dam, Queen of Trumps.

Trotting Stallions.

Steinway. Bred by Col. R. G. Stoner, Ky. Sire, Strathmore. Dam, Abbess. Now in training at Bay District. Trial, 2:21; half mile, 1:08.

Cresco. Bred by Col. R. G. Stoner, Ky. Sire, Strathmore. Dam, Alia. Record, 2:21.

Charles Darby. Bred by the late Daniel Cook. Sire, Steinway. Dam, Kitty G. Now in training at Bay District.

Prince Red. Brown colt imported by Seth Cook in December, 1888. Foaled May 13, 1888. Sired by Red Wilkes, the sire of Prince Wilkes. Record, 2:14½. First dam, Mollie Stout, sister to Lady Stout, three-year old. Record, 2:29 (Membrino time). Second dam, Pus Prall, by Bertrand.

Standard Brood Mares.

Katie G., by B. Electioneer. Leah, by Woodford, Membrino. Princess, by Administrator; dam, by Volunteer. Steinola, by Steinway. Carry Stoner, by Steinway. Calypso, by Steinway. Bertha, by Alcantara. Maggie McGregor, by Robt. McGregor. Nebata, by Belmont. Inex, by Sweepstakes. Lydia Bright, by Triumph. Addie Ash, by Indianapolis. Clementine, by Yosemite. Etna G., by Guy Wilkes. Ramona, by Anteo.

Mares in Training.

None Better, by Allendorf. Dam, Bashaw's Belle.

Nanny Smith, full sister to Phil, Thompson. Record, 2:16. By Red Wilkes. Dam, Nellie Grey.

Algerdatta, by Allendorf. D.m., King Girl.

Alhambra Valley.

The Alhambra valley lies just south of Martinez, and extends back ten miles to the Contra Costa range of hills, being from one to three miles wide. It is under a high state of cultivation, and a large number of our leading citizens have built fine residences there and are making it their country homes. Among these are H. Rapp, Prof. John Muir, Dr. John Strentzel, the veteran horticulturist, O. C. Huefner, of the German *Demokrat*. Prof. John Swett, T. G. Hogan of the I X L, Wm. Cluff and others.

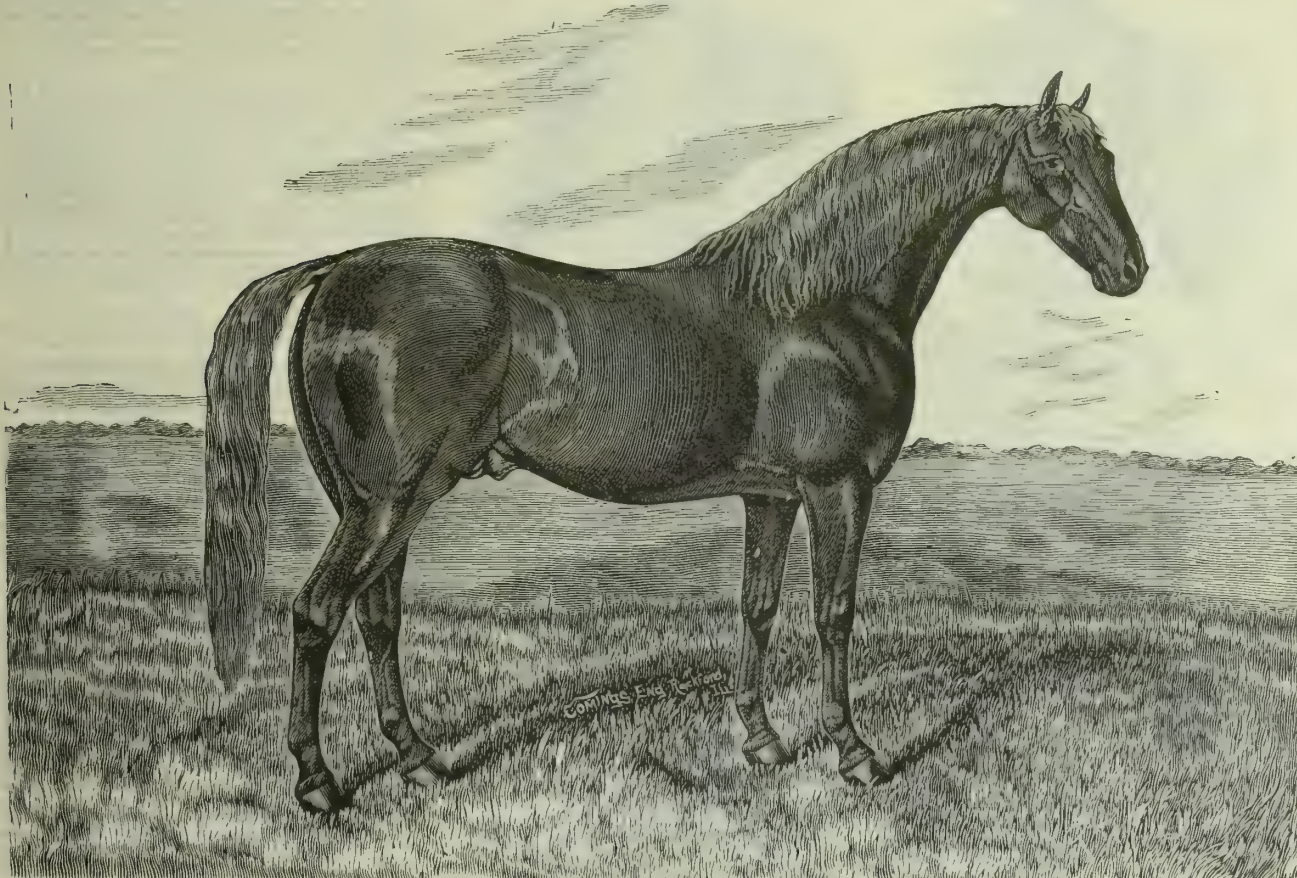
One of our reporters lately visited the residence of Prof. John Swett, four miles from Martinez. Six years ago the professor began to improve this portion of the valley, and now has a country seat whose loveliness can be realized only by personal inspection. The valley here is about one mile wide and surrounded with hills covered with evergreen trees, except in portions where the oaks have been leveled and their places taken by the choicest vines, deciduous fruits and olive trees. The mildness of the climate is attested by the fact that there is growing on his place a tomato-vine over five feet high, which now has hanging upon it more than 100 tomatoes, many of them almost full-grown.

POLLED ANGUS BEEF.—A Polled Angus steer was recently purchased from the herd of the Cook Stock Farm in Contra Costa county by Arthur Williams, a butcher at Walnut Creek. The animal was 30 months old, weighed gross 1345 pounds, and dressed net 835 pounds. The carcass was seen on the block by a RURAL reporter and showed the complete marble that is claimed for beef of this stock. Mr. Williams, who has been in business at Walnut Creek for 16 consecutive years, pronounced it the finest specimen of marbled beef he had ever seen. Several old farmers and stock-raisers who had come to the village to see this beef expressed themselves in terms of surprise as to quality and gave the highest commendation of this breed of cattle as beef-producers.

DEATH TO SQUIRRELS.—J. J. Elliott has followed the business of poisoning squirrels for several years. His system of procedure is to take a section and rid it of these vermin, guaranteeing satisfaction or no pay. He uses a combination of poisons and a compound that attracts the squirrels. Parties desiring it can secure this compound at \$1.50 per gallon by addressing him at Danville, Contra Costa county.

MARTINEZ HOTEL.—This new and commodious hotel has recently been renovated and furnished by E. A. Montgomery and is now ready for guests. The service and table will compare favorably with any hotel outside of our city, and tourist and traveler will find this one of the best houses at this popular summer resort.

McAFEE & BALDWIN is the newly-adopted name of the firm of wide-awake and reliable real estate agents and auctioneers, hitherto known as McAfee Bros.



CLEVELAND BAY STALLION NAPOLEON 754, OWNED BY SETH COOK, DANVILLE, CAL.

to this section, and miles and miles of trees have been planted, especially the pear and cherry.

From Danville, a small village near the center of this valley, we go east 2½ miles into Green Valley, where is situated the celebrated "Cook Stock Farm." This picturesque and charming tract is about 3½ miles long and from half a mile to three miles wide, stocked with great baronial oaks, while on the rolling hills around are groups of evergreen trees common to our State, and Mt. Diablo stands sentinel at the head of the valley.

The natural advantages of this section for making an ideal home induced men of ample means to enlist all the ingenuity of the mechanic and artisan in constructing and adorning a magnificent country seat and family resort. In this connection the projectors have utilized the resources of this rich, productive land and established one of the most notable and extensive breeding farms for fine stock in this State.

The Cook Stock Farm contains 5000 acres and is watered by numerous springs, the largest of which has been tapped by a tunnel 2000 feet long, one mile from the summit of Mt. Diablo, and give a supply sufficient to fill a reservoir containing 25,000,000 gallons of water. The road leading up to the residence is nicely gravelled and has ornamental trees on each side; while about half a mile to the left can be seen a great cattle barn with a mile racetrack adjacent.

There are 100 acres used for ornamental grounds, planted with the choicest varieties of shrubs and flowering plants; 70 acres in orchard, principally pears; 15 acres in olives, of which there are 18 varieties; Japanese fruits, 8 varieties; three acres of oranges with ten trees now in bearing, besides currants, gooseberries, strawberries, raspberries, blackberries, pomegranates, guavas, mulberries, walnuts, chestnuts, almonds, quinces, and a large magnolia

which were imported from Kentucky.

The granary, 40x60 feet, and piggery, 80x50 feet, with an ell 150 long, are to the left and in front of the great cattle barn, 80x200 feet, with a shed 25x400 feet long on the south side. In this building are stabled, in their several departments, the families of Shorthorns, Devons, Polled Angus and Galloways.

Next to the county road is the winter stallion-paddock, where each animal can enjoy shelter or sunshine at its will. We noticed here one of Tiffany's operating tables, by which a horse can be thrown and secured without risk or injury. A short distance from the training stable are 20 acres fenced off in paddocks 200 feet square. The Devon breeding barn, 200 feet long, is placed at the upper end of the valley; the calf barn, 250 feet long, a half-mile lower down; while the Polled-Angus barn, 250 feet long, is at the lower end of the ranch, about 1½ miles from the home residence. This whole tract is suitably divided into fields with substantial board fences, no barbed wire being used on any portion of the farm, except the outside fence next to the mountain. All the home buildings are models in their architectural designs and proportions, with vanes, cupolas and spires, painted, from base-board to comb of roof, in different colors, and so disposed as to form a group that has the appearance of a village.

Mr. Geo. A. Wiley, the manager, has been superintendent for 12 years, and with the assistance of his accomplished wife has done and is doing a great deal to make this farm an attractive and luxurious home, where a hearty and generous hospitality is given to rich and poor alike. In the management of this ranch he has adopted a system of mixed farming and rotation of crops. There are departments with a foreman at the head of each, and a large force of men, from 40 to 50 the year around, is moved with less friction than some farms of one-tenth the magnitude.

show, 1888, and he was shown at the head of the herd, and won the Devon herd sweepstakes, with four herds in competition. He also won sweepstakes at St. Louis fair, 1888, as best Devon bull in the show. He won first prize in class, and sweepstakes at the Moweauqua fair in 1887, and was first in class and sweepstakes at the same show, 1888. Charming Lad was imported by John Hudson of Moweauqua, Shelby county, Ill., July 6, 1886. Sold to Seth Cook, Danville, Cal., Nov. 30, 1888.

ABERDEEN ANGUS.—This herd consists of 62 cows and 19 bulls with Imp. Marathon of Finkay, No. 2021, at the head.

GALLOWAY.—Imp. Scottish Champion, 1218, at the head, with 19 other bulls and 50 cows and heifers.

Horses.

CLEVELAND BAYS.—The stock of Cleveland Bay horses of the Cook Stock Farm was imported by Messrs. Stericker Brothers, Springfield, Ill.

We herewith give the names and pedigree of some of the most notable animals:

Stallions.—Basides Royal Studly and Napoleon, which are illustrated in this issue of the RURAL, there are in the Cleveland Bay stud the following:

Baron Hilton 584. Foaled spring, 1883. Imported 1885. Sire, Lucks All (189); dam by Sportsman (291).

Kingscote 154. Foaled spring, 1884. Imported Dec., 1886. Sire, Competitor (101). Dam, Smiler.

Saxon Prince 83. Foaled spring, 1884. Imported July, 1886. Sire, Sportsman (299). Dam by Brilliant (42).

General 249. Foaled spring, 1885. Imported May, 1887. Sire, Salesman (417). Dam by Barnaby (18).

Bonanza 246. Foaled spring, 1885. Imported August, 1887. Sire, General (177). Dam by Field Marshal (161).

Mares.—Sunbeam 71. Foaled spring, 1883.

THE PUBLIC LANDS.

Revision of the Land Laws.

WASHINGTON, January 31.—The House Committee on Public Lands today took action on the Senate bill relating to public lands, by means of which it is hoped to secure legislation at this session of Congress which will greatly modify the public land policy of the Government. The House passed during last session a bill repealing pre-emption and timber culture and otherwise amending the land laws, but no action has been taken on the measure by the Senate. In order to facilitate the passage of the essential features of this general land bill, the House Committee today took up the bill passed by the Senate in December, providing that the public lands of the United States now subject to private entry shall be disposed of under homestead laws only. After making numerous amendments to the bill, Holman was instructed to report to the House and ask its early consideration.

It is the purpose of the committee in this way to endeavor to throw the proposed land reform legislation into the hands of a Conference Committee of the House and Senate to secure, if possible, the substantial changes desired to be effected in the land laws. The bill agreed upon by the committee today provides that public lands chiefly valuable for agriculture and not subject to private entry shall be disposed of under the homestead law only, and that the pre-emption law shall be repealed. Persons who have made pre-emption or homestead entry of land, but have not perfected title thereto, are given the right to make another homestead entry. Whenever a settler upon the public domain is unable, on account of destruction of crops, sickness or other unavoidable casualty, to secure support from the land located upon, the local land officers may grant leave of absence from the claim to the settler for a term not exceeding one year. Homestead settlers who have made entry to less than one-quarter section of land are given the privilege of making another entry, the aggregate quantity under the entries not to exceed 160 acres.

An Important Decision.

WASHINGTON, January 31.—In the case of the United States vs. the State of California, involving the question of the right of the State to indemnity for school lands to compensate for deficiencies in fractional townships, made so by reason of swamp land found therein, the Secretary of the Interior has reversed the decision of the Commissioner of the General Land Office and sustained the validity of such selections. The selections in this case were approved and certified to by the State prior to the Act of March, 1877, as land inuring to the State under the Act of February 26, 1859, providing for school land indemnity to compensate for deficiencies where school sections are wanting, or where townships are fractional from any cause whatever. The Commissioner held that such selections were invalid whenever based upon the alleged deficiencies in fractional townships, caused by swamp lands found therein, and held the selections for cancellation. He directed that they be disposed of under the provision of the second section of the Act of March 1, 1877, which allows a purchaser from the State to purchase said lands of the Government where said selections are invalid and not confirmed by the Act of 1877.

In reversing this decision, the Secretary held that the State is not entitled, as others, under the language of the various Acts providing for indemnity school lands in the State of California, to make selections in lieu of swamp lands, merely because they are swamp and overflowed, but he holds that under the statute applicable to the State of California directing surveys in said State, townships were made fractional by reason of the existence of swamp and overflowed lands in the same manner and with the same effect as in other States, and resulted from surveys, being made fractional by bodies of water, whether fresh or salt, of such character as to be meandered, and before such fractional townships, made so by reason of the survey thereof, furnished a basis for indemnity selections under the Act of February 26, 1859, which provided for selections to compensate for deficiencies for school sections where Sections 16 and 36 are fractional in quantity, or where one or both are wanting by reason of townships being fractional; or from any natural cause whatever.

He also holds that the Act of 1877 confirmed to the State all selections of land made prior to the passage of said Act, and not sold the State, whether basis for such selections existed or not.

This decision, it is said, controls the case of Elisha Wright et al., appellants, against the State of California and J. W. Warner et al., respondents, and involves a large quantity of land.

MARYSVILLE, January 31.—The decision of the Commissioners of the General Land Office, rendered about a year ago, held for cancellation about 5000 acres in the counties of Yolo, Colusa, Tehama and Siskiyou, held by numerous parties under title from this State as indemnity selections based upon swamp-land lien. The parties had been in undisturbed possession for a dozen years, and the decision occasioned much indignation. Decker & Jewett, the bankers of this city, were the owners of 2400 acres of this land. They, with a number of others, engaged coun-

sel and took an appeal to the Secretary of the Interior. To-day, Decker, Jewett & Co. received a telegram from Washington, announcing that the appeal had been sustained. This leaves the present owners again in undisturbed possession.

Ladies' Costumes.

The two figures herewith illustrate the same pattern. A back view of the costume is shown, the material illustrated being cheviot suiting, with applied braid ornaments for trimming. The basque-like body is closely adjusted, and to it between the side seams is joined the gathered edge of a full drapery that falls in straight folds over a pad to the edge. On the back, extending

standing collar, the back and the shoulders are trimmed with braid ornaments. On each jacket front is applied a braid ornament that is widest at the bust and extends from the shoulder to the lower edge.

The skirt is in the four-gored shape, and on its front-gore is a panel that is laid in two deep, forward-turning plaits, which meet at the belt and flare slightly toward the lower edge. On each side are arranged two lapped panels that are cut in deep scoops and pinked down their front edges, and in the scoops are cut holes that show a star-like margin. Underlying each panel for some depth from its front edge is a similarly pinked strip of cloth in the light shade of gray, which shows beyond the edges of the panels and also through the holes with most



LADIES' COSTUMES.

from the neck nearly to the waist-line, is a V ornament of braid that also includes shoulder ornaments, from which extend pointed ornaments that lie upon the jacket fronts all the way down. The standing collar is covered with braid ornaments.

The bonnet is of velvet and is trimmed with ribbon, beads and an aigrette.

The superb effect of the costume is fully displayed in the front view of Fig. 5, where the materials combined are velvet and cloth in a dark shade of Gobelin-gray and Surah in the lightest shade of Gobelin-gray. On the closely-fitting fronts, which reach only to the waist-line, is arranged a full plastron vest that is laid in fine tucks from the neck nearly to the bust and allowed to fall naturally to the top of a broad, plaited girdle of velvet, which apparently confines the fullness. Jacket fronts open widely over the vest and girdle, below which they hang in points. Above the bust they are turned over in Directoire revers and faced with velvet; the

attractive effect. The coat sleeves are trimmed at their wrists with a wrinkled band of velvet that is caught down at the center of the upper side.

One or two of the panels in the costume may be of one of the contrasting materials in the body, and the plain panels may show elaborate arrangements of braid, either in embroidery or applied ornaments. Fur is a handsome border decoration for the side-panels and the jacket fronts. All sorts of dress goods are devoted to these costumes, and, if desired, the vest may furnish the only contrast. For the vest, soft, flexible material should be selected, and Surah will be associated with the most wintry fabrics.

The cap is of velvet and is in the Tam O'Shanter style, with a puff crown that has a small, smooth center-piece, near which several shirrings are ornamentally arranged. The band is covered with fancy galloon, and a bird is placed at the left side well up against the crown.

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A well-known horticulturist who was in attendance upon the meetings of fruit-growers, writes: "The greatest praise that could be bestowed on the RURAL PRESS at the late Fruit-Growers' Convention and, which shows, undoubtedly, the well-deserved popularity of that paper, is the fact that almost all the members of that Convention were subscribers to the Press."

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Electricity and Plant-Life.

From time to time, of late years, says the *Scientific American*, experiments have been made of the effect of the electrical light on flowers and plants, with results seemingly the same, to wit, feeble efforts of some plant to prolong their periods of bloom into the night and then premature decay. One has only to study their actions, as observed, to conclude that even plants need rest, or to be more precise, they seem to thrive best under the conditions which Nature has imposed—the period of darkness and the period of the light which is heat as well, or else that the family of plants, as they now are, sprung from these exact conditions, and will not thrive without them. It is the nature of some flowers, as every one knows, to open at one period of light and close at another; of others to open only at night and close before or at the moment when the orb of day tops the horizon. So strictly do some of these follow their unwritten laws, that floral clocks have been constructed, so that one may step out into his garden, of a bright day or clear night, and learn the time by the condition of bloom on the floral dial.

Prof. Wollney of Munich, satisfied by experiment that electrical light will not advance or improve plant growth, recently tried the effect upon them of the current itself. We quote the following, being the means employed and its result:

He "took patches of ground 12 feet square, separated by boards penetrating the earth to the depth of a foot. In one case he applied two earth plates and interposed five earth cells; in another he inserted an induction apparatus; and in a third, a plate of copper at one side and a plate of zinc at the other side to form a natural battery. Peas, potatoes, carrots, etc., were planted on these and other patches; but the electricity, whether of high or low potential, seemed to have either no influence or a bad one upon their growth."

Plants being full of sap, and sap a fairly good conductor, every fiber must have been reached, and, so far as the professor was enabled to perceive, the only effect of the current was to provoke a perturbation on the protoplasm.

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OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

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The Use of Butter Color not Contrary to Law.

In a recent communication from Hon. J. S. Miller, Commissioner of Internal Revenue, he distinctly states that his office has never ruled that the coloring of butter renders it liable to a tax under Internal Revenue Laws; and he further states that in the Law in question, which was passed August 2, 1886, butter is defined to be "a food product usually known as butter, and which is made exclusively from cream, or milk, or both, with or without common salt, and with or without additional coloring matter." The law distinctly recognizes the fact that the use of a Butter Color is necessary and lawful, and there need be no fear on the part of any makers of butter that the United States law will ever be used against them because of their making use of Butter Color.

CONSUMPTION CURED.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYES, 149 Powers Block, Rochester, N. Y.

To those wishing roses, hardy plants, bulbs and seeds for home planting we cordially recommend the old reliable House of The Dingee & Conard Co., West Grove, Pa. They are admitted to be the largest rose growers in America, and their roses and plants are well and favorably known all over the United States and Canada. Their New Guide, 110 pages, handsomely illustrated, describes and tells how to grow more than 2000 varieties of the newest and choicest roses, hardy plants, bulbs and seeds, and is sent free to all who write for it. See advertisement in this paper, and address The Dingee & Conard Co., West Grove, Pa.

METALLIC PENS NOT OF MODERN INVENTION. At Acosta a Roman metal pen has been found. It is a bronze pen slit in exactly the same fashion as the present steel pen. The Dutch invented a metal pen in 1717, but it was not until many years later that the hand-screw press, which made the first cheap steel pen, came into use.

FOR REMOVING OLD VARNISH.—A mixture for the removal of old varnish has been patented in Germany by a Mr. Meyer. It is obtained by mixing 5 parts of 36 per cent silicate of potash, 1 of 40 per cent soda lye, and 1 of sal-ammoniac (hydrochlorate of ammonia).

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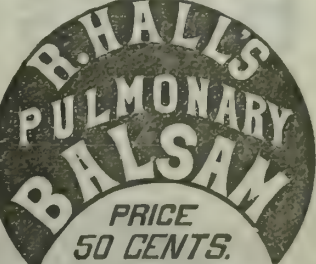
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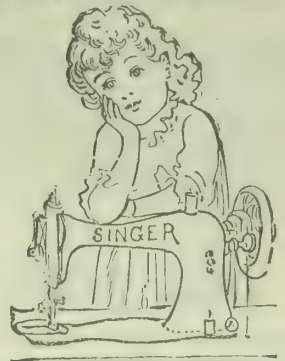
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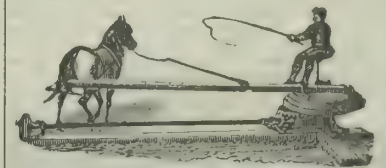
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A RARE BARGAIN!

The undersigned offers for sale, on good terms, his CLOVERDALE DAIRY FARM of 300 acres, situated on Squirrel Creek, 2 miles west of Grass Valley. It is well watered by springs and has excellent irrigation facilities, commodious farm buildings, orchard of 150 trees and 6 acres of vineyard. A fine herd of Holstein, Ayrshire, Jersey, and Durham (thoroughbred and grade) cattle for sale with or without the ranch. Holstein and Ayrshire premium bulls on lowest terms, including "Tehama," which, on account of kinship to the herd, can no longer be used in breeding. A good dairy route is also included in this offer.

H. B. NICHOLS, Proprietor.

CHICO VECINO!

Best location in the State of California for beautiful suburban

HOMES.

Located near the thriving city of CHICO, Butte County, California. Subdivided from the heart of the famous

RANCHO CHICO,

the well-known property of

GENERAL JOHN BIDWELL.

Town Lots and acreage property, from fractions of an acre upward. TERMS REASONABLE. For further particulars, address:

CAMPER & COSTAR,
Real Estate Agents,
Chico, Butte Co., Cal.

LAND TO RENT

On Exceedingly Liberal Terms.

The S. E. quarter of Sec. 13, T. 21, R. 23, and all of Sec. 15, T. 23, R. 34, in the Artesian basin, Tulare county, will be rented at a nominal rent for winter sowing, if applied for soon. The greater part of this land is rich, level and all ready for the plow. Address L. E. Smith, Pixley, Tulare Co., Cal., or Ranch Owner, office RURAL PRESS, San Francisco, Cal.

FOR \$5000.

A Ranch in El Dorado county, near Placerville, contains 160 acres, nearly all fenced in with a four-strand barbed wire fence, a good house of 11 rooms, hard finished, two brick chimneys, cut stone basement with cut stone steps, a good barn and stable, chicken house, work shop and other out-houses, a good well of water, one water ditch for the land, 1000 fruit trees, all in bearing, Peach, Apple, Fig and Cherries, 1000 Grapevines; 80 acres cleared and ready for the plow, all nearly level; about 25 acres woodland, pines, etc., all of which can be cleared; three cows and two calves. The Ranch is five miles from Coloma and nine miles from Placerville. The soil is a red loam the house stands on the county road and the stage passes it twice every day. A span of horses, a new harness and wagon, plow, harrow and other farming utensils to be given with the Ranch. The Title, U. S. Patent. For further information address, "RANCH," Box 2361, San Francisco, or care of Illustrated Publishing Co., 220 Market St., S. F.

Agricultural and Grazing LANDS FOR SALE.

7975 Acres of fine grazing and agricultural land, including 4000 head of fine grade stock sheep; abundance of water; 9 miles from Merced City, and near Merced River; price, \$7.25 per acre; 1000 acres good wheat land. Address

OSTRANDER & SONS,
Merced, Cal.

Or N. C. CARNALL CO.,
624 Market Street, San Francisco, Cal.

FOR SALE OR EXCHANGE.

Ranch of 200 acres on Coquille River, Coos County, Oregon; 40 acres bench land, 160 acres bottom, 80 acres under cultivation; 1 1/2 miles from Coquille City, one-half mile from steamer landing. An abundance of fine spring water on place. Price, \$4500 cash, or will exchange for California property in vicinity of San Francisco Bay. For further particulars apply to H. GORTZ,
659 Clay St., San Francisco, Cal.

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FOR SALE BY

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PREPARATORY, COMMERCIAL and ACADEMIC CLASSES.

References to parents of pupils who have entered the University from this school. Send for circular.

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TRINITY SCHOOL,

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Prepares Boys and Young Men

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Typewriting, Telegraphy, Modern Languages and all the branches of the regular BUSINESS COURSE are included in our

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"OUR COLLEGE LEDGER," containing full particulars regarding the College Departments, Courses of Study, Terms, etc., will be mailed free to all applicants. SEND FOR A COPY.

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C. S. HALLEY, Secretary.

BEST TREE WASH.

"Greenbank" 98 degrees POWDERED CAUSTIC SODA (tests 99.3-100 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,

Manufacturers' Agents,
104 Market St. and 8 California St., S. F.

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TRUMAN, HOOKER & CO.,

SAN FRANCISCO, - CALIFORNIA.

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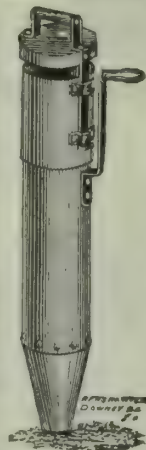
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EXTERMINATOR.

Material used costs nothing

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To get out of order.

Every Machine guaranteed to give satisfaction or money refunded. Send direct to Patentee and Manufacturer to save agents' commissions.

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Send for descriptive Catalogue and Testimonials to

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44 S. Spring St.,
Los Angeles, Cal.



THE H. H. H. Horse Liniment puts new life into the Antiquated Horse! For the last 14 years the H. H. H. Horse Liniment has been the leading remedy among Farmers and Stockmen for the cure of Sprains, Bruises, Stiff Joints, Spavins, Windgalls, Sore Shoulders, etc., and for Family Use is without an equal for Rheumatism, Neuralgia, Aches, Pains, Bruises, Cuts and Sprains of all characters. The H. H. H. Liniment has many imitations, and we caution the Public to see that the Trade Mark "H. H. H." is on every Bottle before purchasing. For sale everywhere for 50 cents and \$1.00 per Bottle.

For Sale by all Druggists.

WINCHESTER HOUSE,

44 Third Street, San Francisco, Cal.

This Fire-proof Brick Building is centrally located, in the healthiest part of the city, only a half block from the Grand and Palace Hotels, and close to all Steamboat and Railroad Offices.

Laundry Free for the use of Families
HOT AND COLD BATHS FREE.

Terms, Board and Room, \$1.00 per Day
And upward.

ROOMS WITH OR WITHOUT BOARD.
FREE COACH TO THE HOUSE

J. POOLEY

AGENTS LOOK
HERE

and farmers with experience make \$2.50 an hour during spare time. J. V. Kenyon, Glens Falls, N. Y., made \$1800 a day. \$75.00 one week. So can you. Proofs and catalogue free. I. E. SHEPARD & CO., Cincinnati, O.

THE DINGEE & CONARD CO'S
ROSES AND SEEDS

We offer postpaid at your own door, the LARGEST STOCK OF ROSES in America, all varieties, sizes and prices, to suit all wants. ALL THE FINEST NEW ROSES, New Hardy FLOWERING PLANTS, New CLIMBING VINES, New Summer FLOWERING BULBS, and JAPAN LILIES, New CHRYSANTHEMUMS, GLADIOLUS and TUBEROSES, The Wonderful NEW MOON FLOWERS, NEW GRAPES, New and Rare FLOWER and VEGETABLE SEEDS. Goods sent everywhere by mail or express. Satisfaction Guaranteed. Our NEW GUIDE, 100 pages, handsomely illustrated, FREE TO ALL who write for it. It will pay you to see it before buying. THE DINGEE & CONARD CO., Rose Growers and Importers, West Grove, Pa.



Come, Fellow Farmers!

It is the good things and the new things you want. Here is a Catalogue full of them! Do you want tested seed, raised from stock selected with extra care, grown from the best strains, and from the original sources? I aim to have mine just such. Do you want new varieties that are really good, and not merely novelties? I aim to have mine such. Do you want seed that the dealer himself has faith enough in to warrant? I warrant mine, as see Catalogue. Do you want an exceptionally large collection to select from? Mine is such. Do you want them directly from the grower? I grow a large portion of mine—few seed-men grow any! My Vegetable and Flower Seed Catalogue for 1889 FREE to everybody. JAMES J. H. GREGORY, Marblehead, Mass.

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Trees and Cuttings.

CABERNET SAUVIGNON,
CABERNET FRANC,
MATARO and CARIGNANE,
BIPARIA, GRAPE ROOTS & CUTTINGS,
At Reasonable Rates

White Adriatic Figs grown and packed by me for sale by Goldberg, Bowen & Co., S. F., and Tillmann & Bendel, S. F.

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OVER 6,000,000 people believe that it pays best to buy Seeds of the largest and most reliable house, and they use

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D. M. FERRY & CO. are acknowledged to be the Largest Seedsmen in the world.

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SEED ANNUAL

For 1889

Will be mailed FREE to all applicants, and to last year's customers without ordering it. Includes all the new and improved Garden, Field or Flower Seeds should send for it. Address

D. M. FERRY & CO., Detroit, Mich.

Earliest Cauliflower in existence.

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Fruit Trees for Sale.

Pear, Apple, Peach, Walnut, Fig, Japan Kelsey Plum and other Trees and Plants.

MILTON THOMAS,

Los Angeles, Cal.

ORANGE TREES.

SURPLUS STOCK OF INDIAN RIVER SEEDLINGS. Guaranteed to be from the far-famed "Dummett Grove" Orange. Stock from one-fourth to one inch, strong, healthy, well rooted. Packed F. O. B. cars at \$25 per M; 5000 and 10,000 lots at \$20 per M.

Address: BENTLEY & MILLS,
Sunny Home Nursery, Jacksonville Fla.

FOR SALE.

I. X. L. Drake Seedling and Golden State ALMOND TREES.

TREAT & LENNOX,

Davisville, Cal.

FOR SALE.

20,000 SOUR ORANGE STOCK,

One year old, \$300 for the lot, or \$20 per M; also Dormant Buds, Peach and Apricot, \$50 per M. Fan Palm, Ash Trees, Texas Umbrella, 10 cents each. PARADISE NURSERY, PHOENIX, ARIZONA. D. TURNER, Manager.

TEXAS UMBRELLA TREES,

California Walnuts and Locust Trees,

FOR SALE BY

J. R. SPRINGER,
P O Box 429, Woodland, Cal.

SEEDS

Our sales in 1888 made those of 1887. Why? Because we sell only the best. Reasonable Prices. SEED POTATOES, large stock, greatest variety. Small Fruit Plants and Trees. Catalogue Free. FRANK FORD & SONS, Ravenna, Ohio.

Fay's Prolific Currant. Two years old, fine, \$3 per 10; \$20 per 100; 1 year old, \$1.50 per 10; \$15 per 100. The above are genuine, splendid and ready to bear. Raspberry, Blackberry and Strawberry Plants at usual price. Address, PILKINGTON & CO., Pearmount Nursery, Portland, Oregon.

PEAR TREES FOR SALE.

3000 Bartlett Pear Trees, two years old, for sale. Address: H. B. MUSCOTT,
Box 84, San Bernardino, Cal.

5000 One-Year-Old

CENTENNIAL CHERRY TREES

For Sale.

A. BUTON, Healdsburg, Cal.

A SPINWALL
A POTATO
PLANTER.

Absolute Guarantee given to do PERFECT and RAPID WORK. Write for illustrated circular. Mention this paper.

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THAN EVER.

PLANTS CORN
Distributes Fertilizers

ASPINWALL MFG. CO.
THREE RIVERS, MICHIGAN.

Contra Costa County.

From a pamphlet published by the Contra Costa Board of Trade, we make the following extracts:

Contra Costa county has an area of 444,491 acres, the Coast Range of mountains running parallel with the ocean, crossing the county, extending in a southeasterly direction. The most distinguished feature of this range is Mt. Diablo, standing out boldly 3896 feet above the sea level, its location being very near the center of the State. It has been selected as an initial point by the Government as the base and meridian line in the survey for nearly two-thirds of the State's area.

The Contra Costa range of hills marks the county's western border. Between Diablo and these hills runs the central valley of the county, beginning at the Bay of Suisun, a short distance east of Martinez, and stretching, with various widths and under various names, to the Livermore and Sunol valleys, where it is divided from the great Santa Clara valley by only a slight elevation. The central valley is about 30 miles in length, and varies from one-half of a mile to six miles in width. It comprises portions known as Pacheco, Diablo, Ygnacio and San Ramon valleys, and nearly every foot of it is composed of the most fertile of soils.

Interspersed in the Contra Costa hills and between the Diablo ridges nestle numerous other valleys, rich in soil, prolific in products. San Pablo valley, on the west, reaches to San Francisco bay, embodying a fine section of country. It is a continuation of the valley in which the city of Oakland is situated, being, in fact, a portion of the Santa Clara valley. East of Diablo, facing the San Joaquin, lies a vast sunny valley which comprises nearly one-third of the entire area of the county.

Farther than the eye can reach to the eastward and southward, extending from Bay Point to Byron, lie the 80,000 acres of wheat-field level almost as the floor, from which come the great quantities of grain shipped annually from Antioch. These lands yield such a generous and regular return that their owners are, with few exceptions, content to grow the staff of life rather than devote the soil to vineyards and orchards with their increased care and labor of cultivation.

The hills dividing these valleys are no less valuable or productive than the valleys. Rising gently and symmetrically, every foot of their sloping sides, to their very summit, is susceptible of cultivation, producing the choicest wine and the best of grain and pasturage.

Mr. Wetmore, Chief Officer of the National Viticultural Association, says of this section: "The long chain of beautiful valleys extending northward to Martinez are sections destined to rival the most noted vineyards of the world. To the east, and south and west, even over the slopes of Mount Diablo, lie the most fertile fruit and vegetable lands on earth."

The tourist, passing through the many beautiful valleys and over the rolling hills throughout Contra Costa county, is impressed with its similarity and general characteristics to the gentle slopes of sunny France. Scattered in all directions are numerous small vineyards and orchards that, with but little cultivation, produce the highest results.

YOLO COUNTY CHARMS AND RESOURCES.—We are indebted to R. B. Blowers, Esq., of Woodland for a copy of the New Year's edition of the *Yolo Mail*, which is a very creditable publication, well filled with facts showing the delights, resources and progress of this favored portion of our State. The editor of the *Mail* followed the wise plan of inviting special articles from leading citizens of his county whose names would carry weight to the statements they make about their localities and industries. There are a dozen such contributions which are valuable and should have wide circulation. We recognize several of the writers as friends of the *RURAL*, and among them Mr. Blowers himself, whose article on climate should be printed by the hundred thousand and distributed at the East by our State Board of Trade. The New Year's edition is well illustrated, a portrait of the famous trotter "Yolo Maid" and several excellent engravings of public buildings being by the Dewey Engraving Co. of this city.

CONVENTION OF RAISIN PRODUCERS AND PACKERS—There will be held at the office of the State Board of Horticulture, 220 Sutter St., S. F., at 1:30 P. M., Saturday, January 19th—a meeting to which all interested in growing, packing or dealing in California raisins are earnestly invited. The published call for the meeting suggests reforms in grading and packing, the establishment of proper grades under local names, and emblems befitting the country; also certain prevailing methods in marketing raisins. These matters are all of importance, and should bring out a large assemblage of those in the raisin interest.

THORBURN'S SEEDS.—The long-established house of Jas. M. Thorburn & Co., 15 John St., N. Y., sends us their annual catalogue of seeds—a handsomely illustrated pamphlet of over 100 pages.

COACH AND DRAFT STALLIONS COMING.—Holbert, Stimson & Co. are bringing to Los Angeles a lot of full-blooded stallions, which were selected in France and England last autumn. See their advertisement for further particulars.

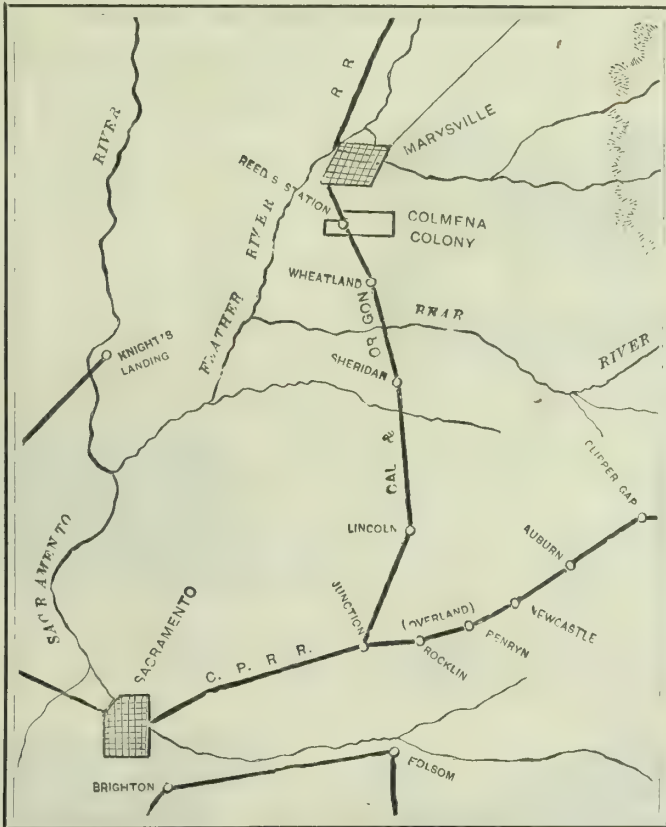


BENNETT'S STABLE, MARTINEZ.

Mr. Seeley J. Bennett, one of the pioneers of Contra Costa county, has borne an important part in developing her resources and bringing into notice her advantages for home-builders. The large edifice shown in the illustration was built in 1884 to meet the growing demand for

livery, and provided the exceptionally fine turnouts for taking tourists and parties to the summit of Mt. Diablo. This stable has become a place of note within the last few years as the headquarters of blooded stock that is shipped to or from the "Cook Stock Farm."

In the upper story a very fine hall and lodge-room have been finished and well equipped for societies and public meetings.



COLMENA COLONY.

The accompanying map presents a view of the Colmena Colony, containing 3100 acres of choice vine and fruit lands finely watered by creeks and an abundance of pure well-water. Its location in the center of one of our prominent fruit sections, on the line of the California & Oregon R. R., in subdivisions of 20 acres, should attract attention.

Grapes that were grown in close proximity to this tract were awarded the first premium at the district fair held in Marysville in 1888. For nearly a quarter of a century Marysville has been one of the prominent fruit-shipping points of the State. In that time it has been demonstrated that the fruits of that section are among the earliest and best in the State. Along the Honcut, the Feather, the Yuba, the Bear and the Sacramento, there are large areas of sediment land of unsurpassed fertility. On these sedimentary soils great quantities of vegetables are raised, with large profit to the tillers of the soil and to the land-owners.

It is now more than a quarter of a century since citrus and other semi-tropic fruit trees were planted in Yuba and Sutter counties. On the Hook Farm, General Sutter's old place, there is a grove of fig trees, the oldest in the northern part of the State. There are now in Marysville 3000 bearing orange trees, and many of them have been in bearing for a number of years. They present incontrovertible evidence

that this is a citrus-fruit country. With the proper shelter of cypress hedges or rows of trees, orange and lemon trees will grow and produce on all the valley lands.

The "Abbott orchard," the largest peach orchard in California, is located nine miles from Marysville, in Sutter county, and contains 425 acres. The first 50 acres was planted in February, 1883. In 1885 the sales of fruit from this 50 acre lot amounted in round numbers to \$6000, and the next season to \$12,000.

About one-third of this tract is bottom land, bordering on the creeks, and is especially adapted to deciduous fruits. No irrigation is required.

Should any purchaser desire irrigation, there is ample water supply at command from the Excelsior Water and Mining Co., who have an abundance of water which can be brought to the land very cheaply.

During the year 1888, large crops of wheat, barley, and hay were raised on this tract, and it is confidently believed that home-seekers will find in this colony an investment that will be satisfactory.

The proprietors, Messrs. Abbott & Montague of Marysville, have undertaken to plant orchards or vines on any tract sold, and take care of the same this year. Lots will be sold on easy terms, and the projectors will make great efforts to establish one of the most notable colonies in California.

THE new depot of the S. P. at Los Angeles was opened New Year's Day with a ball given by the railroad employees. The structure is 507x90 feet. The main waiting-room is 64x57 feet, the baggage-room 60x36 feet, and all appointments are of the best. The depot will not be used for some time, as a question of right of way has not been settled.

R. R. TAXES PAID—On the 28th of December the Southern Pacific Co. paid into the State Treasury at Sacramento taxes for 1888, amounting to \$521,679.70.

A POSTOFFICE has been established at Orosi, Tulare county, and O. C. Goodin appointed postmaster.

California Products at Chicago.

CHICAGO, Jan. 9.—Easter Beurre pears are the only green California fruit remaining on the market; they sell in a small way at \$3.25@3.50 per box. Oranges are quite plenty; Florida and Mexico sending in all supplies. Large fruit is rather easy. Smaller sizes, when of good quality, meet with fair sale and rule rather steady. Some stock arrives in bad order and has to be sold for lower prices. Prices rule at \$2.40@6 per box, according to kind and quality.

California dried fruits remain steadily held at late quotations; trade, however, is very quiet, quotable as follows:

Appricots—Evaporated, bxs, 15c; bleached, bxs, 14c; do, sun-dried, sks, 9@10c. Peaches—New, bleached, unpeeled, 8½@10c; do, peeled, bxs, 14@15c; do, sun-dried, sks, unpeeled, 6½@7c; do, new, evaporated, unpeeled, 10@11c. Nectarines—White, bxs, 9@12c; do, red, bxs, 8@11c; do red to white, sks, 7@10c. Plums, new, pitted, 9@11c; new do, unpitted, 4@7c; Prunes, according to size, in sks, 5@9c; Silver, 10@13c.

Raisins—Loose Muscatels, old, per box, \$1@1.16; do, new, \$1.30@1.60; London layers, new, \$2.25@2.40.

Choice grades of hops are meeting with moderate sale, and as the quantity is not large a steady feeling prevails. Hops, more or less off in quality, however, are in fair supply but rather slow. Prices were ranging as follows: Pacific Coast, prime, 22@24c; do, fair to good, 18@20c; do, low grade, 14@16c.

Beans rule steady; the market, however, appears to be rather quiet. Off-rings are not large, and the supply may be said to be about fair. Quotations range as follows: California pea beans, \$1.95@2; Lima beans, California, per lb., 4½c.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING DEC. 25, 1888.

- 394,958.—ELECTRIC BELTS—S. Colling, Oakland, Cal.
- 395,046.—PIPE-WRENCH—C. H. H. French, Hollister, Cal.
- 395,052.—ROLLER BEARING—R. W. Hent, S. F.
- 395,150.—DENTAL ENGINE—W. A. Knowles, Alameda, Cal.
- 394,989.—HARVESTER—J. N. Miller, S. F.
- 395,072.—CAR-COUPLING—F. Oit, Estrella, Cal.
- 395,096.—FIRE ALARM—Alex. Watson, S. F.
- 395,097.—CANDLESTICK—G. Wernitz, Placerville, Cal.

NOTE.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

CHOICE POLAND-CHINAS IMPORTED.

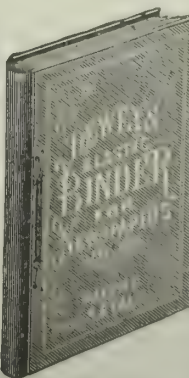
Andrew Smith of Redwood City, who is famous on this coast as a successful breeder of dish-faced Berkshire swine and an habitual prize-winner at State and district fairs, has had so many inquiries for Poland Chinas, also, that he has decided to breed the latter as well as the former. He has just imported, from the very best blood to be found in the Western States, two boars and four sows of different strains, at prices ranging as high as \$100 per head (exclusive of freight charges), and will soon be in position to supply young Poland-Chinas, as well as Berkshires, according to the preferences of buyers.

Mr. Smith informs us that his sales for 1888 exceeded 100 head of both sexes, his customers being found not only in California, Oregon and Washington Territory, but also in Honolulu, Mexico, Central and South America; and he has heaps of letters from purchasers, who express unvarying satisfaction with the animals he has forwarded to them. His latest importation of Berkshires from England is now on the way hither.

His prices are reasonable, being but \$20 apiece for pigs of either breed, old enough for safe shipment, nicely boxed and delivered free on board, with feed sufficient for transportation any ordinary distance, every animal being guaranteed, the same as has been his custom heretofore.

Mr. Smith is making arrangements to have their pictures taken, and we hope in the course of a few weeks to be able to show our readers original portraits of some of the choicest swine in his unequalled breeding-herd.

What Every Subscriber Should Have.



AN EASY BINDER.—A. T. Dewey's Patent Elastic Binder, for periodicals, music and other printed sheets, is the handiest, best and cheapest of all economical and practical file binders. Newspapers are quickly placed in it and held neatly, as in a cloth-bound book. It is durable, and so simple a child can use it. Price, size of Mining and Scientific Press, Rural Press, Watchman, Fraternal Publishing Co.'s journals, Harper's Weekly and Scientific American, 85 cents; postage 10 cents. Postpaid to subscribers of this paper, 50 cents. Send to this office for illustrated circular. Agents wanted.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

HORSES AND CATTLE

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by H. H. H. and S. H. H.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Police American Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Gen. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER Saxe & Son, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

GEO BEMENT & Son, Maple Grove Farm, Oakland P. O., breeders of Ayrshire Cattle & Essex Swine.

F. H. BURKE, 401 Montgomery St., S. F.: Registered Holsteins; winners of more first prizes, sweepstakes and special premiums this year than any herd on the Coast. Pure Berkshire Pigs. Catalogues.

H. P. MOHR, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

H. S. SARGENT, Stockton, importer and breeder of registered Jersey Cattle. Correspondence solicited.

P. PETERSEN, Sites, Colusa Co., importer & breeder of registered Shorthorn Cattle. Young bulls for sale.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENMAN & McNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

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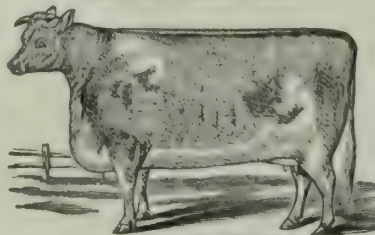
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S. F. MARKET REPORT

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 9, 1889.

There was more general trading the past week in farm products, causing a steadier feeling in some of the cereals and higher prices for wheat. Clear skies and drying weather allowed the starting of more plows in localities where heavy rainfalls had interfered with outdoor work. At the East and also abroad the wheat market showed more strength, with a slight gain in prices.

LIVERPOOL, Jan. 9.—Wheat—Firm. California spot lots, 7s 7d to 7s 10d; off coast, 39s; just shipped, 39s 6d; nearly due, 39s 3d; cargoes off coast, quiet but steady; on passage, not much demand; Mark Lane wheat, very few buyers in market; English country markets, firm; French, steady; wheat and flour in Paris, steady; weather in England, some rain.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt:

	Jan.	Feb.	Mar.	Apr.	May.	June.
Thursday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2
Friday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2
Saturday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2
Monday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2
Tuesday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments:

	U. C.	P. S.	N. D.	Market.
Thursday	39-3d	39s 1/2	39s 3/4	Steady.
Friday	39-3d	39s 1/2	39s 3/4	Steady.
Saturday	39-3d	39s 1/2	39s 3/4	Firm.
Monday	39-3d	39s 1/2	39s 3/4	Steady.
Tuesday	39-3d	39s 1/2	39s 3/4	Steady.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York:

Day.	Jan.	Feb.	May.
Thursday	100 1/2	102 1/2	100 1/2
Friday	100 1/2	102 1/2	100 1/2
Saturday	101	102 1/2	100 1/2
Monday	101 1/2	102 1/2	100 1/2
Tuesday	101 1/2	102 1/2	100 1/2

The closing prices for wheat have been as follows, at Chicago:

Day.	Jan.	Feb.	May.
Thursday	101 1/2	102 1/2	100 1/2
Friday	101 1/2	102 1/2	100 1/2
Saturday	101 1/2	102 1/2	100 1/2
Monday	101 1/2	102 1/2	100 1/2
Tuesday	101 1/2	102 1/2	100 1/2

The Foreign Grain Trade.

LONDON, Jan. 7.—The *Mark Lane Express*, in its weekly review of the British grain trade, says: Freezing and foggy weather encourages wheat farmers. Owing to good reserves of the leading cereals the exchanges have not shown the buoyancy which frequently characterizes the opening of the new year. There is but little change in prices from those of December. There is improved retail inquiry. Three cargoes of California wheat have been sold. One cargo sold at 38s 9d for 15,230 quarters and two cargoes at 39s. English wheat was firm. The prices of foreign showed a hardening tendency. Flour was dearer, and the opinion prevails that the best English is kept too high. Round corn was firm, but flat was 3d cheaper. Beans and peas declined 6d. The demand was disappointing. Oats were 3d dearer for lighter sorts, owing to the close of Russian navigation.

Eastern Wool Market.

NEW YORK, Jan. 4.—*Bradstreet's* says: Though trade in wool reached only moderate proportions this week, the year opens with a strong undertone and fair prospect for continued activity. Many manufacturers are still in need of supplies, and their purchases ought to be more liberal soon. Coarse, heavy-weight goods are finally settled. It is generally thought somewhat higher prices for fabrics will be secured during the coming season than were obtained last year. The *American Wool Reporter* estimates supplies of wool in various markets of the country at 80,189,157 lbs., as against 124,995,096 a year ago, not including stocks of foreign wool in bond, which amount to 12,973,802 lbs. at Boston alone. Manufacturers have more material on hand than a year ago, when the market was falling instead of rising. This, of course, must be taken into account in the estimates of supplies for the coming season. Sales will be resumed at London on the 29th, when good selections promise to be offered. At Philadelphia the volume of business has been moderate, but sales have exceeded receipts and stocks are steadily dwindling away. The total supply in this market at the close of the year is estimated to have been not over 8,000,000 lbs., which is nearly 50 per cent less than the stock available a year ago. The market is very strong, but there is no quotable change from last week's prices.

BOSTON, Jan. 4.—The new year opens with a very strong market for wool, with dealers in a very confident mood. The demand was not very active during the week, but this is nothing unusual for the initial week of the year, trade being usually quiet at this time. It is a noticeable fact that for many years there has not been such a buoyant feeling prevalent at this season as can be found to-day. Throughout the country stocks show material falling off compared with a year ago, and the tendency of prices is consequently upward. There is still some uncertainty about the position of heavy-weight goods, but the bulk of opinion seems to be on the side of higher prices before the season advances much further. Medium wools of all kinds are a very strong feature of the market. Total sales 2,264,300.

California Products at Chicago.

See page 41.

Miscellaneous.

NEW YORK, Jan. 7.—Fine raisins are out of first-class hands here, and in New England many loose remain rated as poor, because overcured. Lima beans are steady, with a glimmer of improvement.

Hops—Shippers are more disposed to recognize quality and merit and bid higher for selection. State and Oregon of lower grades are neglected and receipts are falling off. Exports for the week were 893 bales. Good to best State was quoted at 18@22 1/2c; other, 15@17c; Pacifics, 16@21c; all old, 5@12c.

Local Markets.

The following tables give the highest and lowest prices paid on Call during the past week:

	WHEAT.	S. S.	R. S.	B. '89.	S. '89.	Jan.
Thursday	140	140	140	140	140	140
Friday	140	140	140	140	140	140
Saturday	140	140	140	140	140	140
Monday	140	140	140	140	140	140
Tuesday	140	140	140	140	140	140

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday	90	89 1/2	90 1/2
Friday	90	89 1/2	90 1/2
Saturday	90	89 1/2	90 1/2
Monday	90	89 1/2	90 1/2
Tuesday	90	89 1/2	90 1/2

BAGS—Holders of Calcuttas report a strong tone to the market at 7 1/2c for June-July delivery.

BARLEY—There is no life to the market. On Call, options are inactive, with transactions barely affording a basis for quotations of futures. The stock here consists largely of poor grades.

The following are to-day's Call Board sales: Morning Session: Buyer season—200 tons, 89c; 200, 88 1/2c per cwt. Afternoon Session: Buyer season—100 tons, 88 1/2c per cwt.

BUTTER—Heavy receipts and a strong selling pressure have sent values to a still lower range, but at the close a steadier feeling is reported, owing to more buying orders coming in and receipts lessening.

CHEESE—The market is barely steady under a light demand and a desire in some quarters to clean up stocks.

EGGS—Under light receipts the market strengthened, but with unexpected supplies received from the central markets, the closing is weaker.

FLOUR—The market is without essential change. The demand is about as heretofore reported.

WHEAT—The past week has witnessed a stronger market, with buyers of sample parcels bidding an advance, but owing to holders' advanced views, trading was light. On Call, dealings in futures have been more active with a steady advance, under strong buying in all options.

The following are to-day's Call Board sales: Morning Session: Buyer 1889—300 tons \$1.56; 100, \$1.55 1/2; 300, \$1.55 1/2; 600, \$1.55 1/2; 200, \$1.55 1/2. Buyer Season—200 tons, \$1.58 1/2; 600, \$1.58 1/2; 1700, \$1.50 per cwt. Afternoon Session: Spot, season's storage paid—100 tons, \$1.44 1/2; Buyer 1889—100 tons, \$1.54 1/2; 400, \$1.54 1/2; 300, \$1.55. Buyer season—100 tons, \$1.49 1/2; 400, \$1.49 1/2 per cwt.

Market Information.

Cereals.

The *Mark Lane Express*, Dec. 17th, says: The foggy and disagreeable weather which has prevailed in the great cities, and especially in London, should not lead us to forget that the past week, agriculturally speaking, has been of a distinctly seasonable character. Undue forwardness in the growth of wheat plant has been satisfactorily checked by the fall in the temperature and by the night frosts, at the same time that these latter have not been severe enough to penetrate at all deep into the soil, or do any injury to the grain in the ground. This autumn's sowings of wheat may now be regarded as having made a promising start; they were well-rooted and have come up well; a winter of seasonable, without excessive, cold should hand over to the spring a large acreage of wheat land promising to atone in 1889 for the deficient quantity and quality of the previous year.

The *London Farmer and the Chamber of Agricultural Journal* says: It is now stated that a great flour ring is being formed from the Tweed to the Humber. As much as £2,000,000 has been underwritten in connection with this movement, which, by the way, does not stand from the financial point of view on all fours with the salt trust. The American and European millers, to say nothing of the exporters of the raw material (including India), will have to be reckoned with. However, it is thought that if local competition were suppressed by the proposed trust, an increase to that extent might be made without opening the gate too wide to the foreigner. Next it is calculated that savings could be effected on railway transit, competition leading to unnecessary movement of flour from one district to another, on salaries of travelers, and on other payments to middlemen, which, taken together, would mean another 15 per cent, or in all £200,000 per annum, which would be equal to ten per cent on a capital of £2,000,000. That is the scheme briefly on paper, but its basis is questioned by men fully conversant with the trade.

The wheat market holds very strong, with an advance bid for the more choice shipping and milling grades. The general feeling among holders is that there will be a much higher range of values before spring fairly opens. Acting under this impression, the selling offers are light, and when any parcel is put on the market it is at a higher figure than quoted by buyers. Yesterday, Tuesday, a bid of \$1.45 was made for a sound parcel of milling delivered at Stockton, but declined, owing to a much higher price being obtainable there. The same day an offer of \$1.45 was made for a parcel of good shipping, Port Costa delivery. It is claimed that the quantity of wheat unsold is quite large, but not, taking the State as a whole, equal to that unsold at this date in 1888. The inroad made by Oregon millers into the China flour trade cuts off quite a slice from the outlet for California flour; this necessarily reduces the wheat requirements of our millers.

Plowing is reported to be very active in the agricultural districts. From all that can be ascertained, the acreage of summer-fallow seeded to wheat is a full average, while the winter-seeded will be considerably larger than at any time within the past four or five years. While this is the case it is out of the question guessing as to what the outcome will be this year, for that is contingent on the spring rains.

Barley is very dull. This is said to be due to an entire absence of any speculative movement, and al-

so to large consumers either well stocked or else confining their purchases to as small parcels as possible. Large handlers of the grain report the supply of good to choice grades of feed, brewing and Chevalier to be quite light, but that the poorer grades of feed are in heavy supply. There is some buying of better grades of common barley for seed purposes at 85 to 90c per cwt, and of Chevalier at \$1.40 to \$1.60. It is very generally claimed that the acreage that will be put into barley this year will be less than either in 1888 or 1887.

Oats continue to crowd the market, causing buyers to bid down for all parcels offered for sale. The stock now here is fully double that held at like time in 1888. The surplus in Oregon and Washington which is seeking this market is a source of surprise, and creates more or less of a demoralized feeling with the trade, and causes buyers to hesitate in meeting their wants.

Corn is, if anything, more inactive than last week, with a still lower range of values quoted by dealers. Consumers are indifferent, unless offered further inducements in the way of concessions.

Rye and buckwheat are slow, with quotations more or less nominal.

Fruit.

Eastern apples continue to press the market, causing a lower range of values to obtain, although choice hold comparatively fairly firm. The receipts of Oregon are fair, with the more choice received moving off quite freely at relatively better prices than the Eastern do.

In citrus fruits the general trade shows more activity owing to a lower range of values for oranges under heavy receipts. The distributive demand is increasing, principally from the north. Limes and lemons show few changes. The shipments of oranges overland are increasing, with the more choice going forward.

In dried fruits there is absolutely nothing doing. A large holder tried the market yesterday, but except at lower prices for immediate delivery buyers would not operate. It is claimed that with the February and March demand more will go out on orders to distant points, when large distributors will come in as buyers.

Raisins are dull and heavy, with buyers only tempted by marked concessions in prices, which holders will not submit to, believing that before the next season the trade will take all that there is here.

Feedstuff.

Ground feed moves more slowly, but lessened receipts keep prices from shading off much. Consumers only buy in a hand-to-mouth way, and any selling pressure is met by lower bids.

It is claimed that with clearer weather and improved roads the delivery of hay will be larger; laboring under this impression, buyers confine their purchases as much as possible. Holders, so far as can be learned, express confidence in the market, and will only name lower prices so as to effect sales for the poorer grades, believing that the light obtainable supply of choice justifies full figures. The consumption is large, considering the improved pasturage reported in all parts of the State.

Vegetables.

Cabbages are slow at the low prices. Los Angeles is now sending us string beans, green peas, cucumbers, tomatoes, egg plant and green peppers. Owing to the high prices, the demand is light.

The potato market is irregular; while some are higher and strong, others are weak. Oregon Burbank that came to hand by the last steamer were placed at \$1.20 per cental. The more choice grades of potatoes move fairly well, but the poorer grades are slow. The surplus in the Salinas valley and in Oregon is reported to be very heavy. Sweet potatoes are strong at an advance.

Choice onions are wanted, and fetch good prices compared with values in December, but poor are hard to sell. The market is overstocked with poor and defective, which sell "as is" at from 20 to 50c a sack. Selected onions fetch more money.

Live-Stock.

Both bullocks and mutton sheep show a weaker tone under freer obtainable supplies. The improved roads, without rains soon, will, it is claimed, allow freer deliveries at shipping points and cause more competitive selling. But on the other hand, the selling interest claim that owing to better pasturage stockmen will want their stock to take on more flesh before selling. Fresh milk cows are scarce at an average range of from \$30 to \$50 a head. In horses the market is without change. Hogs are wanted for the block and fetch good prices. The supply continues light.

The market for dressed meat is quoted as follows by slaughterers to butchers (to get the price of stock on foot, take off one-third of the price for stall and grain fed and one-half from the price of grass fed, that is animals running at large).

HOGS—On foot, grain fed, 6 1/2@6 3/4c per lb.; dressed, 9@9 1/2c per lb.; soft, 5 1/2@6 1/2c per lb.; dressed, 8 1/2@8 3/4c per lb. Stock hogs, 4@5c per lb. BEEF—Stall fed, 8@8 1/2c per lb.; grass fed, extra, 7 1/2@— per lb.; first quality, 6@7c per lb.; second quality 4 1/2@6 1/2c per lb.; third quality, 4@5c per lb.; fourth, 3@4c per lb.

VEAL—Small, 8@10c per lb.; large, 6@8c. MUTTON—Wethers, 6 1/2@7c per lb.; ewes, 6@6 1/2c per lb.; lamb, spring, 7@9c per lb.

Miscellaneous.

From the *Commercial News* of Jan. 8th, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port	179,991	254,532
On the way to neighboring ports	39,508	55,805
In port, disengaged	20,649	107,204
In port, engaged for wheat	44,501	26,225

Totals.....284,649 443,766

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to Jan. 8th, the following are the exports from this port:

	1889.	1888.
Wheat, cts.	7,659,484	4,876,047
Flour, bbls.	352,213	371,621
Barley, cts.	1,062,540	378,906

Poultry has a firmer tone for choice hens, roosters and ducks, but turkeys are weak. Eastern continue to come to hand, causing prices for dressed to be shaded on free receipts.

Beans are slow, with a weak tone to the market. Poor grades are placed with considerable difficulty

even at concessions. The East is not drawing freely as yet.

In grass seeds the feeling is weaker, with a lighter call reported.

Yellow mustard seed is in liberal supply, dull and heavy, but brown mustard is in light supply and being in good inquiry commands full prices, particularly for choice.

Honey is in light supply, with holders asking full prices.

In wool there is very little doing, owing to assortments being badly broken. It now looks as if the market will be cleaned up before this year's clip comes on.

Hops are dull and heavy, with no improvement in the demand looked for until after this month.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations while very poor grades sell less than the lower quotations. WEDNESDAY, Jan. 9, 1889.

BEANS AND PEAS.		Soft shell.....	10 @	12
Bayo, ctl.....	2 00 @ 2 75	Paper shell.....	14 @	15
Butter.....	2 50 @ 3 01	Brazil.....	8 @	10
Pea.....	2 00 @ 2 15	Peanut.....	10 @	11
Red.....	2 00 @ 2 40	Peanut.....	4 @	5
Pink.....	2 25 @ 2 50	Fibers.....	10 @	12

Large White	@	Hickory	5 @
Small White	1 90 @ 2 15	POTATOES.	
Lin.	3 25 @ 3 50	Early Rose.....	50 @ 60
Fid Peas. Bkkeye 1 60 @ 1 80		Chile.....	50 @ 65
do green	1 60 @ 1 75	Peerless.....	40 @ 75
do Niles.....	1 25 @ 1 45	Jersey Blues.....	45 @ 75
BROOM (ORN)			
		River Reds.....	30 @ 50

South'n & ton.....	60 00 @80 00	Burbanks.....	75 @ 1 20
Northern.....	60 00 @80 00	Cuffey Cove....	50 @ 80
CHICORY.		Sweet	1 00 @ 1 40
California.....	5 @ 6	Tomatoes.....	60 @ 75
German.....	6 1/2 @ 7	POULTRY AND GAME	

DAIRY PRODUCE, ETC.	Hens, doz.	6 50 @ 9 00
Butter	Roosters.	5 50 @ 10 00
Cal. Com. to fair.	Broilers.	3 50 @ 4 50
do good to choice.	Ducks, tame.	7 00 @ 10 00
do Fancy birds	Geese, pair.	2 00 @ 2 50
do picked.	do Gosling.	— @
Eastern in tubs.	Turkey, Cobbler.	13 @ 15
do in rolls.	Turkey, Hens.	14 @ 16
CHICKENS.	do dressed.	15 @ 18

do Fancy breeds	24 @	25	Geese, pair,....	2 00 @ 2 50
do pickled. ...	15 @	20	do Goslings...	— @ —
Eastern in tubs.	20 @	—	Turkeys, Goblr.	13 @ 15
do in rolls...	— @	—	Turkeys, Hen.,	14 @ 16
CHEESE.			do dressed	15 @ 18

FEED.	Small ducks.	75 @ 1 50
Bras, ton.	Canvas sack.	4 00 @ 6 00
Feedmeal.	Gray geese.	3 00 @ 3 25
Grain.	Brant.	1 25 @ 2 00
Feedings.		1 25 @ 2 00
Oil Cake Meal.		30 @ 31 00

Cal. Bacon.	12 @ 15
Heavy, lb.	12 @ 15
Medium.	13 @ 14
Light.	13 @ 14
Extra Light.	14 @ 15
Lard.	11 @ 12
Cal. Smoked Beef.	11 @ 12 1/2
Hams, Cal.	15 @ 16 1/2
do Eastern.	17 @ —

Grd Barley.....	19 00 @ 20 00	Brant	1 25 @ 2 00
Middlings	16 00 @ 17 50	PROVISIONS.	
Oil Cake Meal..	30 00 @ 31 00	Cal. Bacon,	
HAY.		Heavy, B.....	12 @ 15
		Medium.....	13 @ 14

Wheat, per ton	10 00 @ 14 50	Medium.....	13 @ 14
Wheat and Oats	10 00 @ 14 00	Light.....	13 @ 14
Wild Oats.....	11 00 @ 13 00	Extra Light..	14 @ 15
Clover.....	11 00 @ 13 00	Lard.....	11 @ 12
Tame Oats.....	10 00 @ 13 50	Cal. Sm'kd Beef	11 @ 12

Barley.....	8 00	@ 11 50	Hams, Cal.....	15 @	16
Barley and Oats	10 00	@ 12 00	do Eastern...	17 @	—
Alfalfa.....	8 00	@ 10 00	SEEDS.		
Straw bale.....	55	@ 65	Alfalfa.....	12 @	12 1/2
			Canary.....	4 1/2 @	5

“amber, “ “cs. new “ 10 @ 11
white “ “ “ 12 1/2 @ 13 1/2
Extracted, dark, 5-gal. cans, 2 cans to case, 3 lb. 5 @ 6 1/2
“ “ “ “ “ “ 5 1/2 @ 6
“ “ “ “ “ “ 6 @ 6 1/2
Comb, 2-tins, 2 doz. to case, 3 doz. \$3 75
Extracted, “ “ “ “ “ “ 2 25
“ “ “ “ “ “ 4 75

RAISINS.
Halves, quarters and eighths, 25, 50 and 75 cents higher
respectively than whole box prices.
London Layers, choice 3 lb. box \$1 80 @ 2 00
“ “ “ “ “ “ 2 10 @ 2 25
Layers, 3 lb. box “ “ “ “ “ “ 1 60 @ 1 70
Loose Muscates, common, 3 lb. box 1 35 @ 1 40
“ “ “ “ “ “ 1 55 @ 1 70
“ “ “ “ “ “ 1 70 @ 1 90
Unstemmed “ in sack, 3 lb. box 44 @ 5
Stemmed “ “ “ “ “ “ 5 @ 5 1/2
Seedless “ “ “ “ “ “ 4 @ 5
“ “ “ “ “ “ 1 @ 1
“ Sultanas, unbleached, in bxs 54 @ 6 1/2
“ “ “ “ “ “ “ “ 54 @ 6 1/2

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top
quotations, while very poor grades sell less than the lower
quotations.
WEDNESDAY, Jan. 9, 1889.
Apples, bx, com 65 @ 90 do Rose Peru. @
do Choice 1 00 @ 1 75 do B. Hamb'g @
do Extra, bbl 3 00 @ 3 50 do Muscats. @
Apricots, bx. @ do do Malaga. @
do Royals lb. @ do Tokays. @
Bananas, bunch 2 25 @ 3 25 do Cornichon. @
Blackberries, ch @ do Isabella. @
Cherries, wh, bx @ Zinfandel, ton. @
do black, bx. @ Mission do. @
do Royal Ann. @ Nectarines, bx. @
Cranberries, 10 00 @ 12 00 Warmelns, 100. @
Currants, ch. @ Canteloupes, cr. @
Gonshberries lb. @ VEGETABLES.
Limes, Mex. 6 00 @ 7 00 Asparagus bx. @
Lemons, Cal. bx 2 00 @ 3 00 do extra choice @
do Sicily, box 4 50 @ 6 00 Okra, dry, lb. 15 @ 25
Oranges, Com bx 1 50 @ 2 00 do Green bx. @
do Choice. 2 50 @ 3 00 Parsnips, cti. 1 00 @ 1 25
do Navela 3 50 @ 4 50 Peppers, dry, lb. 8 @ 10
choise. 2 50 @ 3 00 do green, bx. 5 @ 6
do do Com. 2 50 @ 3 00 Squash, Sum. @
Persimmons, lb. 2 1/2 @ 5 mer, bx. @
Quinces, bx. @ do Mrw-fat in 8 00 @ 12 00
Peaches, bx com @ String beans, lb. 20 @ 25
do Ex ch'ce, bx @ Turnips, cti. 1 10 @
Hale's Early, bx. @ Beets, sk. 1 00 @
Pineapples, doz. 4 50 @ 5 50 Cabbage, 100 lbs 50 @ 60
Raspberries ch. @ Carrots, sk. 30 @ 50
Strawberries ch. @ Green Corn, cr. @
Pears, bx. @ Green Peas, lb. @
do Choice. @ Sweet Peas, lb. @
Plums, 3 lb. @ Mushrooms, lb. 5 @
Prunes, French. @ Rhubarb, bx. @
Figs, black, bx. @ Cucumbers, bx. @
do white, bx. @ Carlin, sk. 50 @ 75
Grapes, per box. @ Tomatoes, rt. 1 10 @ 1 25
do Sw water. @ Egg Plant, lb. 30 @ 40

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N. W. Cor. California & Battery Sts.,
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of the Directors, held on the 8th day of January,
1889, AN INSTALLMENT (No. 7) OF TEN PER CENT
(equal to ten (\$10) dollars per share) was levied upon the
capital stock of the corporation, payable immediately to
the cashier, at the office of the Bank, San Francisco.
Any stock upon which the installment shall remain un-
paid

On the 7th day of February, 1889,
Will be delinquent and advertised for sale at public auc-
tion, and unless payment is made before, will be sold
On the 7th day of March, 1889,
To pay the delinquent installment, together with costs
of advertising and expenses o sale.
A. D. LOGAN, President,
FRANK McMULLEN, Secretary.

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Remedies for their Extermination.
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Price \$4, postpaid. For sale by DEWEY & Co., publish-
ers, 220 Market St., San Francisco.

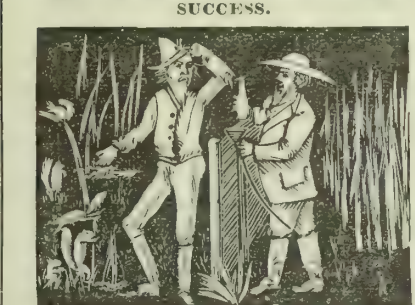
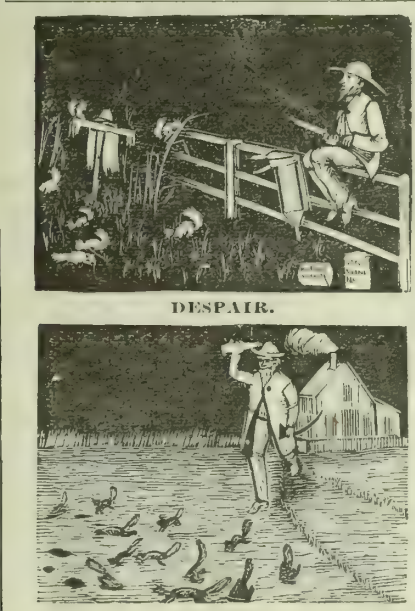
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the country, among them the

PACIFIC COAST WEATHER FOR THE WEEK.																																				
(Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.)																																				
DATE.	Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.			
	Rain.....	Temp.....	Wind.....	Weather.	Rain.....	Temp....	Wind.....	Weather.	Rain.....	Temp.....	Wind.....	Weather.	Rain.....	Temp....	Wind.....	Weather.	Rain.....	Temp.....	Wind.....	Weather.	Rain.....	Temp....	Wind.....	Weather.	Rain.....	Temp....	Wind.....	Weather.	Rain.....	Temp.....	Wind.....	Weather.				
Jan. 2-8.																																				
Wednesday .....	.01	34	E	Cy.	.02	58	SW	Cy.	.00	48	S	Cy.	.00	40	SE	Cy.	.00	52	SW	Cy.	.00	40	S	Fy.	.00	38	E	Cl.	.00	54	W	Cl.	.00	56	Nw	Cl.
Thursday .....	.T	36	E	Cl.	.20	58	NE	Cy.	.02	46	Nw	Cy.	.00	42	N	Cy.	.00	42	N	Cy.	.00	50	SE	Fr.	.00	38	S	Cl.	.00	54	W	Cl.	.00	56	Nw	Cl.
Friday .....	.T	38	E	Cy.	.02	56	NE	Cl.	.08	54	N	Fr.	.00	52	Nw	Cl.	.81	53	NE	Cy.	.00	50	Nw	Cy.	.00	42	Om	Cy.	.00	54	NE	Cy.	.00	56	SE	Cy.
Saturday .....	.T	42	S	Cy.	.00	54	N	Fr.	.00	64	N	Cl.	.00	58	W	Cl.	.00	55	S	Cl.	.00	54	SE	Cl.	.04	50	Nw	Cl.	.02	60	W	Cl.	.01	58	Nw	Fr.
Sunday .....	.01	46	Nw	Cl.	.00	54	N	Fr.	.00	62	W	Fr.	.00	54	SE	Cl.	.00	56	Nw	Cl.	.00	56	SW	Cl.	.00	50	NE	Cl.	.00	64	N	Cl.	.00	64	Nw	Cl.
Monday .....	.00	32	Nw	Fy.	.00	54	SW	Cl.	.00	62	N	Cl.	.00	52	Nw	Cl.	.00	55	N	Fr.	.00	46	W	Fy.	.00	50	N	Cl.	.00	60	W	Cl.	.00	60	Nw	Cl.
Tuesday .....	.01	40	SE	Ry.	.00	52	SW	Cy.	.00	46	S	Fy.	.00	44	SW	Cy.	.00	53	Nw	F.	.00	46	S	Fy.	.00	44	W	Cl.	.00	54	W	Fr.	.00	56	S	Cl.
Total .....	.03				.24				.10				.00				.81				.00				.04				.02				.01			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; Cm., calm; — indicates too small to measure. Temperature, wind and weather at 12:30 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.



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HOLBERT, STIMSON & CO.
Los Angeles, Cal., Jan. 7, 1889.


Japanese Oranges.
We caution parties against buying trees from inex-
perienced Japanese and other irresponsible parties who
have been shipping Orange Trees here under different
names. Many farmers, etc., had a severe lesson last
season, losing, in some instances, four-fifths, without the
prospect of a single one being replaced. We were the
first to introduce the OONSHIU to the notice of orchard-
ists, recommending it strongly, and will replace any
trees that die after receiving proper care. Our importa-
tions, so far, are over 100,000, and we do not offer any
that have not been acclimated in our (7) nurseries at
least a year.
New arrivals preserve their leaves for a time, but
sooner or later wilt nearly to the ground, the result of
the long voyage and the disinfecting process. Our Mr.
H. E. Amore has lately returned from China and Japan,
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parts of the State, trees against land, feeling perfectly
assured of pecuniary success. See various complimen-
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JAPANESE TREE IMPORTING CO.,
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For the half-year ending December 31, 1888, a dividend
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Reasonable Prices and Easy Terms.

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MOST PRODUCTIVE LANDS,

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The tract now offered in subdivisions is situated on the south side of the American river, 18 miles from the city of Sacramento, the Capital of the State, adjoining the town of Folsom, and on the Sacramento and Placer-ville Railroad.

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Water for irrigation and other purposes will be furnished to all who desire it at the Company's rates. The water is taken from the American river, near Salmon Falls, and the ditch has a capacity of 3000 miners' inches and a never-failing supply of water. All of the land now offered for sale lies below the ditch, and consequently can be irrigated therefrom. This is a very important item and greatly increases the value of the land, as by irrigation a sure crop can always be depended upon, even in the driest of seasons. The irrigating ditches run directly through the tract, and in addition to this, an unfailing supply of pure and soft water can be obtained from wells at a depth of from 40 to 100 feet.

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The transportation facilities, a very important factor to all fruit-growers, are of the very best; the Sacramento and Placer-ville Railroad running through the orchard its entire length and having a receiving depot in the most central location on the tract, so that no fruit has to be hauled more than half a mile.

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The property is also situated in the central part of California, and in the center of a great fruit-producing section, and immediately adjoining the principal markets of the coast—by the quick transportation facilities which it enjoys.

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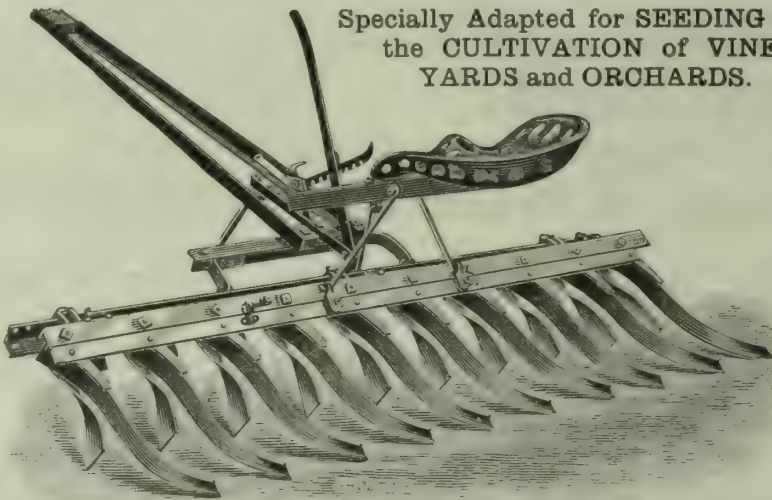
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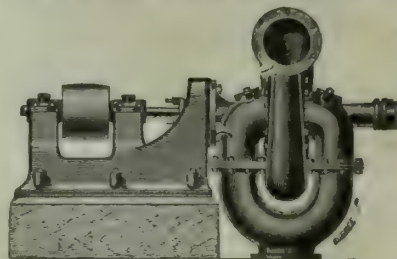
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Vol. XXXVII.—No. 3

SAN FRANCISCO, SATURDAY, JANUARY 19, 1889.

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A Foothill Peach.

We give on this page a photo-facsimile by the Dewey Engraving Co. of a California seedling peach which is coming into great popularity in Placer county. The plate is one of the series of photo representations of new California varieties, which will appear in Mr. Wickson's book on "California Fruits and How to Grow Them" which is now in the hands of the printer, and of which a definite, formal announcement will appear in an early issue. The picture is from a photograph of a specimen of the fruit sent us last summer from Placer county. During the transmission, the leaves became badly wilted and shriveled, hence their unhandsome appearance in the plate. The fine form of the peach is, however, easily discerned and a statement of its origin and qualities will be read with interest by peach-growers.

The fruit is the Albright Cling, which originated on the farm of a grower, whose name it bears, in the neighborhood of Placerville, El Dorado county. Our notes on the fruit include a statement of P. W. Butler of Penryn, that in 1882 he heard of the fruit and went to visit the orchard of Mr. Foster, near Placerville, who had, at that time, about 600 trees of this variety in bearing. Mr. Butler found the trees laden with fully ripened peaches of remarkably fine form, color and quality. As compared with Orange Clings growing near by, the Albright Cling was more highly colored, of better flavor, and the tree a more prolific bearer. Mr. Butler assures us that he has never seen peaches of larger average size than those in the orchard of Mr. Foster, where they had plenty of irrigation.

The ripening season of the Albright at Penryn is from August 15th to 30th, while at Placerville it is a week later. The peach, as the engraving shows, is almost perfect in shape and it is more regular and less liable to be misshapen than some other favorite varieties. Its colors are those of the Orange Cling but apparently more intense, and its flavor and general quality unexceptionable.

Naturally being so favorably impressed with the peach, Mr. Butler secured stock of it, and in 1888 he gathered about 4000 boxes from 1000

trees four years old from dormant bud, or three years old as the age of trees is usually counted.

The experience of Ira F. White, Willard Hazen and other growers of the Albright peach in the Placer-county peach region is, as we understand, enthusiastically in favor of the variety. The following is Mr. Butler's enumeration of its excellencies: Very fine in appearance and high colored; perfectly and uniformly shaped; large and regular in size; tree of good habit and a strong grower, and capable of sup-

POTENT THOUGH SILENT pleas in favor of protecting Californian industries have been made in the Senate cloak-room at Washington by Senator Stanford, who has been having samples of our fruit products placed there, day after day. "On one occasion," says a correspondent, "it may be a box of Fresno raisins, and handfuls of the delicious fruit are greatly relished. At another time it will be a basket of figs, often finer than any the Senator ever saw before. Then it will be Riverside oranges, large and luscious,

Desert Lands in Lassen.

At the second session of the Forty-third Congress, and two years prior to the general desert-land law, there was passed an Act providing that any citizen of the United States may file with the proper local land officers a sworn declaration of his intention to reclaim a tract of desert land situated in Lassen county, Cal., and not exceeding one section, by conducting water upon it so as to reclaim all said land within two years. The Act was designed to cover all public lands within the county (excluding mineral and timber) which do not produce grass, or will not, without such reclamation, produce any agricultural crop. On making satisfactory proof within the time specified, that the whole tract described has been reclaimed in the manner aforesaid, the applicant is entitled to enter the land at \$1.25 per acre and receive a patent therefor.

At that time several San Francisco capitalists became interested in a project for tapping Eagle lake by means of a tunnel, 18 feet below its surface, and thence irrigating a wide area; but after \$200,000 or \$300,000 had been expended in furtherance of this plan the work was suspended, though not abandoned, by those who have

Dewey Eng. Co., S. F.



Photo-facsimile.

THE ALBRIGHT CLING—A CALIFORNIA SEEDLING POPULAR IN THE FOOTHILLS.

porting a large crop; pit, small; flesh, rich yellow, remarkably tender and juicy, and remains in eatable condition for a longer time than any other peach known to him.

The last point was enforced upon Mr. Butler's observation in this way: In gathering for drying he found that the culls which had been rejected in packing for shipping as under-sized and were allowed to hang on or lie under the trees for two weeks after picking for shipping had stopped, were found to be perfectly sound and good even for a period of two weeks after reaching a good eating condition. Mr. Butler does not know another peach which has such durability. A sample-box of this fruit sent to this office the first week in September fully attested this characteristic as noted by Mr. Butler.

We understand that the Albright Cling made an excellent shipping record this season and seems destined to become one of the coming peaches of the yellow cling style in regions to which it proves itself to be adapted.

and the arrival of a box is whispered around the chamber until every Senator who knows the quality of 'Stanford's oranges' has buried his lips in their sweet, juicy pulp. When everybody has satisfied himself as to the quality of the fruit which happens to be on exhibition, Senator Stanford incidentally remarks that the fruit-raising industries of the United States must be protected from competition on uneven terms with the fruits of foreign lands. The argument is unanswerable." The Senator is also reported mindful of our beet-sugar producers and will not give his consent to any tariff changes which threaten to militate against that interest.

JAMES G. SWAN, U. S. Fish Commissioner, has received notification from Washington that a carload of lobsters has been shipped to Port Townsend, W. T., for transplanting. Scow bay, opposite Port Townsend and near Point Wilson, has been chosen for lobster-beds.

most money there invested. Meanwhile—we are informed by a gentleman who has himself staked a good deal on his faith in the Susan River valley's future—too many "innocent victims" have been led by real-estate schemers to sink their money in land which they have no means of reclaiming. And he says the public should be made aware that while there are myriads of acres of public land still open for settlement in Modoc and Lassen, yet for successful farming on most of these tracts irrigation is quite indispensable. There is, therefore, ample room for private enterprise in the line of developing water and constructing storage reservoirs at the base of the mountains in these counties; but no one should be induced to buy out "claims" unless a supply of water is guaranteed.

THE Riverside Press says more bona-fide sales of real estate are now made than one year ago.

SHEEP AND WOOL.

The Wool-Growers' Program.

J. H. Kirkpatrick, the well-known California wool-grower, who is now in Washington attending a meeting of wool-growers, sends us the following letter from Hon. Columbus Delano, president of the National Wool-Growers' Association, which describes the position of the organization with reference to pending tariff legislation by Congress:

The wool schedule in the Senate Tariff Bill as it now stands fails to give such protection as the wool-growing industry requires. If no better assistance is afforded this pursuit when the tariff bill is enacted into law the flocks of the United States will continue to decline in numbers, and the clip will diminish in quantity as rapidly as they have done since the Act of 1883.

Protest against the injustice of this schedule would have been made sooner had not the adjournment of Congress and other circumstances rendered it apparent that such protest had better be delayed until Congress again convened. It is known to those familiar with this subject that the carpet manufacturers, and some other manufacturers who desire free wool, procured the changes in the wool schedule, to which objection is now made, after that schedule had been agreed to by the producers, the dealers, and a part of the manufacturers. It can be easily demonstrated that the representations made before the Senate Committee or sub-Committee, in order to procure the present objectionable features of the wool schedule, were erroneous and misleading, and that the carpet manufacturers and their colleagues in this matter have no reason arising from their business to justify the demand they have made. No industry in the United States is in better condition than the carpet-manufacturing business, and none has been more prosperous for many years past, and none approaches nearer the condition of a perfectly protected industry. I know of one establishment that has made during the past five years more net gains than all the wool-growers of the United States added together have made. While this is said, it seems fit, in this connection, to refer to the condition of the wool-producing interest. Our flocks have diminished in numbers since 1883 to the full extent of 10,000,000, whereas they should have increased by the natural increase of the country not less than 10,000,000. Our annual clip has diminished in quantity to the extent of 55,000,000 pounds, and the price has been reduced not less than 20 per cent.

The reduction of the clip and the declination in price have created an annual loss of \$40,000,000. It does not seem just that a great agricultural industry (if it is so diversified as to prevent those who pursue it from fully presenting their claims to Congress) should be overlooked or neglected while marked and needless encouragement is afforded to a kindred but not more worthy business.

If all members of Congress could understand how important sheep husbandry is to agriculture in general, it would be much better for us.

This industry it is that makes useful our rolling and hilly lands that cannot be cultivated without destruction by reason of washing and waste when plowed and that are comparatively of little value except for grazing. And the advantage resulting from the fertilization of cultivated lands by means of sheep husbandry is an important consideration little known, but which, with increasing population, is growing constantly in importance.

The representatives of this industry have ever stood faithfully by the principle of protection. They and their friends and advisers have insisted that by so doing they would assist in establishing an economic system that will sustain all of our practical and useful industries. It is apparent that this system needs the aid of all its friends, and I am directed by some of those whom I represent to inform you that the wool growers cannot acquiesce in the present schedule, and that they intend to hold a meeting as soon as convenient to consider the situation and present to Congress and the people, if necessary, their just claims and demands, with their reasons therefor.

They respectfully urge the reconsideration of this schedule and the adoption of provisions relating to secured and carpet wool equivalent to those insisted on last summer.

More should be given—less will leave their industry in a condition to cause in future what has been seen in the past, a constant diminution in the number of our sheep and a steady decline in the quantity and value of the clip. This, in a short time, will substantially surrender to foreign nations an industry the importance of which is not now appreciated.

Wool-growers are impressed with the importance of the step they propose. They understand the necessity of harmony and unity among the friends of protection. They have made every concession compatible with the preservation of their industry; but events have forced upon them a conviction that the injustice which they have heretofore suffered is likely to be prolonged if not perpetuated by the passage of the bill now before the Senate of the United States.

They deem it best, therefore, to frankly advise Congress that if it is found impossible to afford the producers of wool no better encour-

agement than is offered in the present bill, those who pursue this industry will be compelled to determine each for himself whether to continue a fruitless struggle that has entailed constant loss and disappointment, or surrender to the inevitable, and abandon their business, relying upon the hope that the loss to the nation, resulting from the destruction of their industry, may soon lead to an economical policy sufficiently comprehensive and just to restore it.

C. DELANO,
Pres. Nat. Wool-Growers' Ass'n.

THE DAIRY.

Dairy Progress in Oregon.

At the Farmers' Institute held in Salem, Oregon, January 4th, there was an address by W. W. Baker of Portland, from which we take the following relating to the progress of the dairy in our sister State:

A little less than four years ago the butter industry of this State was so depressed by the large importations of imitation butter that to talk to any one about the advantages of the dairy industry was but to insult him. Butter was selling in the market at 10 to 20 cents per pound, and on April 1, 1885, it was estimated that there were from 40 to 50 tons in the city of Portland alone that could not be sold at even the price named.

The Oregon State-Dairy law went into effect at that time. By a vigorous enforcement of the law, the arrest and conviction of unprincipled dealers, the gang were glad to throw up their hands. They quit dealing in the article, and in less than six months butter had advanced to 20 and 30 cents.

It is estimated that each inhabitant consumes 26 pounds of butter per annum. Supposing that Oregon, including transient travel, has a population of 300,000 people, and that half that number bought their butter, they would pay the butter-makers for 3,900,000 pounds. This, at 15 cents per pound—the average price when the Oregon Dairy law went into effect—would amount to \$585,000; at 25 cents, the price since the advance, they will pay \$975,000, or a difference of \$390,000.

This is not all, and I always regret to stand as a lone witness when there is other proof at hand. In the fall of 1886, desiring to present valuable facts in my report to the Governor relative to the working of the dairy law, I had the following correspondence with business gentlemen in Portland:

PORTLAND, OR., Dec. 31, 1886.

Henry Everding, Esq.—I am aware that your dealings in dairy products are sufficient to enable you to form very correct ideas as to the present standard of Oregon dairy products. I would therefore be pleased if you would state in writing your opinion regarding the Oregon dairy products now as compared with 21 months ago, or in other words before the Oregon State dairy law went into effect. I would also esteem it a favor if you would give your opinion as to the influence of the Oregon dairy law.

Mr. Everding replied as follows:

Dear Sir: In reply to your favor of the 31st ult., I am pleased to say that I believe that our Oregon butter has improved in its quality at least 40 per cent during the last 21 months, or since the Oregon State dairy law went into effect. The banishment from our State of oleomargarine and butterine made a market for the cheaper Oregon butter particularly. The law has had the effect to stimulate the Oregon dairymen, for in the law they believe they have a friend.

Then again I am satisfied that if there had been no law regarding imitation butter there would not now be a creamery in the State. There are some six of these, and as a consequence, we are being supplied with good butter, to the exclusion of butter heretofore imported from other States. Yours truly,

HENRY EVERDING,
Commission Merchant, 47 Front St., Portland, Or.

I called on Messrs. E. Larsen & Co., commission merchants, corner of Washington and Front streets, who are large dealers in Oregon dairy products, and showed them a copy of the letter written to Mr. Henry Everding, as well as that gentleman's reply. Mr. Larsen wrote:

I endorse all said in Mr. Everding's letter, except I say that, in my judgment, the improvement has been from 35 to 40 per cent. Yours truly,

E. LARSEN & CO.

Then there were six creameries within our borders; now there are some 16, and new ones are going into operation every little while. The great success of the imitation butter traffic has, it is believed, induced manufacturers and dealers in other foods to adulterate them that it is now believed the State dairy laws have all had their day, and that we must meet the food adulterators by enacting laws which will cover the whole ground. In this connection I am pleased to note the fact that there will be a bill introduced in the coming Legislature to regulate the manufacturing, offering or selling of adulterated foods. Should such a law be enacted and properly enforced, it will be worth more than a million of dollars annually to the producers of this State.

Assuming that we have the very best climate and soil, and that our people will have the cows, and withal the intelligence and energy to make the North Pacific a land where no wolf will ever be seen at the door, may we not reasonably expect this will become a large exporting State in place of an importing one as now?

The Truth About "Johnson Grass."

EDITORS PRESS:—I am a new arrival upon this coast and have read a great many glowing "reports" in certain prominent seedsmen's catalogues regarding the virtues of evergreen millet for a dry soil. These reports claim it as a very valuable forage plant, and add that a fine quality of hay is produced if cut while green and tender.

In contradiction to these statements comes the sorrowful cry of one from Fresno in your issue of December 15, 1888, asking how to kill "Johnson grass," asserting that it is a worthless pest. Now I would really like to know the truth about the matter.

1. Is evergreen millet valuable for hay and grazing for cattle?
2. Does it become worthless after a few years?
3. Will it really stand the average summers of such coast counties as Mendocino and Humboldt?

4. Providing that the land is never required for any other purpose, would it pay to plant upon average corn land? Some of your rural readers are doubtless perfectly competent to answer the above queries from their own personal experiences, and in so doing will greatly benefit this section of Mendocino.

For the benefit of others, let me state my case. When I located here I found that the wool craze of a few years ago had ruined this section by overstocking with sheep. All the natural grasses had been eaten out and killed off by close feeding. Never giving anything eatable a chance to seed itself, the consequence is that a growth of worthless vegetation is the final result, as nature protests against going bareheaded. Camphor-weed, tar-weed, etc., have almost taken possession, and what we earnestly desire is to find out some robust perennial plant that will clean out all useless weeds—one that, once planted, will hold its own against all weeds, and at the same time withstand California's dry summers. This much, and more, is claimed for "Johnson grass," but before going to the expense of planting, I would like to learn from others.

I have heard of an Italian clover, said to be grown for trial in San Luis Obispo county, a perennial with a taproot like alfalfa and to withstand drought. Can any one give me any information regarding such a valuable plant? Where can the seed be obtained?

T. H. BURGOYNE.

Cummings, Mendocino Co.

THE VINEYARD.

Experience in Grape-Grafting.

Eli F. Sheppard of the Madrone vineyards writes for the *Bulletin* an account of his experience in grape-grafting, which is a subject widely occupying the attention of grape-growers at the present time. We quote as follows:

I wish to answer the numerous inquiries addressed to me by vine-growers in different parts of the State, regarding a method of grafting European vines upon American resistant stocks, which has been attended with success at the Madrone vineyards since 1885.

Until quite recently there has existed a popular distrust, if not a downright prejudice, against grafting vineyards on resistant stocks; first, because of the great labor and expense which the operation was believed to entail; secondly, on account of the added time supposed to be necessary to bring grafted vineyards into productive bearing; and thirdly, because of the accredited uncertainty generally of its success—the popular idea being, that the vine does not graft with the same certainty and ease as the apple, pear and other fruit trees.

After repeated practical experiments, extending over a series of years, and attended with uniform success, I feel warranted in saying that the planting of American resistant vines and grafting the same with European varieties is neither a very expensive operation, nor is it necessarily attended with any more uncertainty than the grafting of common fruit trees.

Like everything else, success in this matter is largely dependent, no doubt, upon the amount of care and skill bestowed in the performance of the work, and there is no reason to believe that like satisfactory results in grafting the vine may not be obtained by other methods than the one employed by myself; but as the method which I have pursued has proven uniformly successful, while other attempts have, in some instances at least, failed to give good results, it will scarcely be deemed presumption on my part to offer it as so much positive knowledge gained—knowledge of a subject of undoubted interest and importance to every California vineyardist.

Experience in France and in this country sufficiently demonstrates that all the native varieties of American vines, with the exception of the *Scuppernon*, successfully bear the vineifers; but up to the present, owing to the want of experimental knowledge of the subject, no particular process or method of grafting vines has been generally accepted as the best.

Experience has, however, shown that the really serious obstacle to successfully grafting vines, particularly on stocks of small diameter, arises from the difficulty of sufficiently excluding the air from the joint of the graft and in finding a suitable, convenient and easily

applied ligature for holding the graft securely in place while the union is being formed.

Numerous devices for the attainment of these objects have been recommended and tried with greater or less success. The most common method is the use of small pieces of hemp or cotton string, or cord of *Raphia*; but it is found that while these are about the best in general use, the material is liable to rot in wet seasons before a union has formed, and in dry seasons it has to be loosened once or twice, and finally cut away just as soon as the graft starts its growth, which is both tedious and expensive. Different kinds of wire have also been employed for the same purpose; but it possesses no elasticity whatever, is exceedingly difficult of application, and is always liable to strangle the young graft.

One of the cleverest devices perhaps is that of Mr. Comy, which consists of a flat elastic rubber band. It has been found, however, that a rubber band is too elastic to hold the graft securely, and as it will not rot it has to be cut away, which is both laborious and expensive; but none of the devices have proven entirely satisfactory, for the reason, mainly, that they are all more or less inconvenient and impracticable, and none of them are designed to sufficiently exclude the air from the joint during the time of union of the graft with the stock.

And just here another obstacle presents itself. It is well understood that the application of an absolutely impervious mastic or grafting wax to the joint of the graft is impracticable for the reason that it is liable to induce fermentation of the redundant sap, which causes a fatal rot of the roots of the vine.

The exclusion of the air from the joint must, therefore, be accomplished, if at all, by some method or agency which will absorb or permit the escape of the surplus sap from the stock. For this purpose the application of soft, porous clay has been used with satisfactory results in France and with varying success in California. But the labor of applying it and its constant tendency to crack and fall off in dry seasons renders its use too precarious for general adoption.

About five years ago, while conducting a series of experiments in grafting vines by the several methods above described, I conceived the idea of a modified, or partly waxed cotton bandage for tying the graft, the idea being to make it sufficiently impervious to the air, so adjusted as not to bring the wax in direct contact with the graft joint and which would allow the superfluous sap to escape.

My first experiments with these bandages were attended with the most gratifying results. Out of some 300 Semillon grafts on Lenoir stock, treated in this way, all except eight grew and flourished vigorously, while fully 12 per cent of the same varieties grafted in the ordinary way but otherwise equally well cared for and surrounded by like conditions, failed to unite and died outright. When I came to examine them later in the season, I discovered, what I have ever since observed—that the grafts with wax bandages had uniformly made a perceptibly smoother and more perfect union with the native stock than those by other methods.

Another equally gratifying result from the use of the waxed bandage is that it does not require to be loosened, as it has proved sufficiently expansive to permit the natural growth of the vine without strangling the grape or deforming the joint. Subsequent experience has demonstrated to my entire satisfaction that, if properly prepared and applied, the bandage does not require to be cut away, but rots off in due time, leaving a clean, healthy union without further interference or labor, after it is once put on. Last, but not least, it does not require to be tied when it is put on, an immense saving in labor. It only remains for me to add that in all my subsequent experience in grafting vines I have met with uniform success in the use of the waxed bandage. The following is the formula for preparing the same: Take old soft muslin—the coarser the better—cut it across the grain into narrow slips half an inch wide and eight inches in length; arrange the slips in bundles of 100 each, for convenience in applying the wax; melt, in a shallow iron pan, a pound each of beef tallow and beeswax, add four ounces of resin; heat the whole to the boiling point. Then take the bundle of prepared muslin slips and dip one-half its length only into the boiling liquid, take it out quickly and hang up in a cool place till the wax hardens; and the bandages are ready for use. The bandage so prepared is applied as follows: After carefully inserting the graft in the cleft, begin a little below the joint and wrap the dry or unwaxed end of the bandage closely and firmly three or four times, spirally upward around the cleft, completely covering it; when the waxed portion of the bandage is reached, draw it tightly around, going spirally downward and over the now covered cleft joint until the whole is completely inclosed, air-tight, with the waxed cloth. Press the bandaged joint gently between the thumb and forefinger to close up any exposed points, and carefully cover up the graft to the terminal bud with dry, fresh earth.

Any workman with ordinary skill and intelligence, after mastering the theory of grafting, may be safely intrusted with the work, provided he exercises a proper amount of care. A careless man should never be intrusted with grafting vines under any circumstances. As a rule, I have found that green, inexperienced men, who were willing to receive instruction from me, succeed better than those—and there are plenty such—who think they "know more than the boss."

THE LUMBERMAN.

Our Lumber Interests.

The past year has afforded to the lumber-mills on the Pacific Coast the longest and most profitable season they have enjoyed for many years. Quite recently, however, the prices of lumber have fallen to a very low figure, but even this has not worked any special hardship to the lumbermen, for the reason that it has greatly increased building enterprises and turned hundreds of young men in the direction of home-getting. Every family should have a home of its own. The whole State prospers from any condition of things that tends in that direction.

Sawmill men report that notwithstanding the fact that they manufactured a large amount of fencing lumber this season, they have not now on hand a sufficient quantity to supply the demands, and in several instances the mills have not had a foot on hand. Thus, notwithstanding two dry seasons, our farmers have apparently enough money on hand to improve their ranches by fencing them and building houses where none existed before.

The San Bernardino Index speaks of the immense amount of lumber that is being hauled into that town from the neighboring mountains, and determined to ascertain just how many mills were running, and about how many thousand feet have been cut this season. It was ascertained that there were eight mills in operation, and that their total output would aggregate 7,410,000 feet.

High up in the Sierras the mills are obliged to close down in the winter. Advice from Carson of Dec. 5th state that all the sawmills, railroads, flumes, wood and logging camps around Lake Tahoe have closed down for the season. All the men employed around the lakes have left for Carson, Truckee, Sacramento and San Francisco, where they will remain until work opens up again in the spring. The Carson & Tahoe Lake Co. sawed 25,600,000 feet of lumber in their two mills during the season, and cut 28,300 cords of wood, which has been flumed to Carson during the summer.

Puget Sound advices of Dec. 22d say that all the sawmills on the Sound, except the local mills, have shut down and will remain closed till Jan. 2d. The object is to make a "clean-up" for the year, take account of logs on hand, make estimates of the future supply of logs, and in a general way to make preparations for work next year. The past season has been prosperous, and the outlook is good.

Reports from Tulare and Fresno counties say that the lumbermen of that vicinity have had a prosperous season, and immense quantities of timber land have been bought and taken up the past season with a view to active operations in the early future. The mills belonging to the Madera Flume & Trading Co. were closed down about the last of November. Some idea of the immense amount of business transacted by the company can be gleaned from the fact that over 14,500,000 feet of lumber have been turned out by it during the season. The Sequel mill sawed 7,500,000 feet and the California mills 7,500,000 feet. Most of this lumber has been floated down the flume to Madera.

Numerous capitalists, says the Yreka Journal, are taking up timber land along the Klamath river in the Happy Camp section, in the southern part of Siskiyou county, with the intention of floating the timber down to the coast line, where it can be cut up and shipped by ocean to San Francisco and other seaports.

Redwood lumber is being shipped to Europe in considerable quantities. The ship India recently took a full cargo of redwood lumber for the United Kingdom. A few years ago several cargoes of this kind were sent to Europe. The last previous cargo was cleared January 24, 1887, by the Remittent, which carried 336,436 feet. The India carries a much larger cargo. Considerable business will no doubt, ere long, be developed in shipping California redwood to Europe. Large quantities have been sent to domestic Atlantic markets both by sea and overland, and with satisfactory results. Even the stumps of redwood trees have been turned to profitable account. The wood is susceptible of fine finish, and the grain and coloring make a pleasing effect. Recently (October 19th) the Norwegian bark Orion left Puget Sound for London with 456,452 feet of lumber. This is the first cargo of the kind to clear from the Sound for Europe in some time.

The Humboldt Mail says: The Pacific Lumber Company is building a large pond, or reservoir, for holding logs about two miles above the mill. It will cover 12 acres, and will hold an enormous amount of timber.

A large shingle-mill at Trinidad, Col., has been started to fill contracts for supplying several million shingles to San Francisco.

Over 500,000 feet of logs were recently tied up at Seattle by suits to foreclose loggers' liens. There were only two suits, and the amount claimed was only \$129.

As an instance of quick work the Antioch Ledger says: The schooner Jewel recently discharged a cargo at the lumber company's wharf in time that broke the record of all former work in that line. Her cargo of 208,000 feet of lumber was discharged in 19 hours.

No more log rafts are to be permitted to go

out from the Canadian seaboard forests. A fairly prohibitory duty has been placed on such enterprises at the instance of the owners of sailing vessels. This is parallel to smashing up machinery because it reduces prices and calls for less labor.

The timber-raft business has found its way into Europe. It is stated that a timber raft 700 feet long, 170 wide, carrying 170 men and worth \$60,000, recently went down the Rhine; but it was nearly wrecked when passing the famous curve of the Lorelei.

ENTOMOLOGICALS.

Apricot Scale, Codlin Moth and Plum Knots.

[The following is the concluding portion of the essay read at the Chico Fruit-Growers' Convention by State Inspector W. G. Klee, of which the opening part was given in last week's RURAL.]

Brown Apricot Scale.

Another insect which has forced itself to the attention of fruit-growers in certain counties is a large brown soft scale, a yet unnamed species of *Lecanium*, which I prefer to call popularly the "brown apricot scale," because it is one of the few scales troubling this tree. It, however, also infests many other kinds of trees, especially prunes, peaches and pears. The young appear from the eggs in May or June, and scatter all over the trees, settling on the leaves, which become viscid and soon covered with black smut. The whole tree suffers severely by the pores being clogged up, resulting in small and inferior fruit. So small and transparent are the young scale that they are hardly perceptible on the leaves, except through a magnifying glass. They gradually increase in size, however, but not very materially before the following spring, when with the rise of the sap their growth is enormous, their soft, sticky bodies covering the branches completely, often measuring one-fifth of an inch in length. When detached from the branches the numerous white oval eggs are seen surrounded with a white, mealy powder. The young hatch in comparatively short time, and there is only one brood in the season, other statements to the contrary. This insect has spread rapidly in the prune districts of Santa Clara, and I have also seen it in Alameda county. Although much less dangerous than the pernicious scale (San Jose scale—EDS. PRESS), it is very troublesome to exterminate and its appearance in an orchard should cause thorough measures to be taken. This scale is evidently a native of the State, having been found on oak trees, from which it spread and has proved itself even adapted to our fruit trees.

This scale is hard to kill when most conspicuous in the spring. It is then best protected and the tree too tender to use strong remedies. It must be fought either before or after this. In the winter it can be killed with remedies half the strength of what is necessary to kill the San Jose scale. A solution can be used as follows: $\frac{1}{2}$ pound of potash, $\frac{1}{2}$ pound of soda lye to 4 gallons of water, to which $\frac{1}{2}$ pound whale-oil soap is added to each gallon of the solution. A strong solution of whale-oil soap ($\frac{1}{2}$ pound to the gallon of water) will also suffice, but most thorough work is necessary.

Used early in the season, immediately after the fruit has been harvested, the following summer wash, previously recommended, is of good service: $1\frac{1}{2}$ pounds of sulphur, 1 pound of American concentrated lye or four-fifths of a pound of powdered caustic soda, 12 pounds of best whale-oil soap (80 per cent), 55 gallons of water. Dissolve the lye in one gallon of water, boil the sulphur until dissolved; dissolve the soap in water; mix the two and boil them a short time; use at 130° F. (in vessel.)

The Codlin Moth.

The past season, unlike the previous one, proved exceedingly favorable to the propagation of this pest, and more wormy fruit appears this year than perhaps in any other previous one. The remedies for the moth have also proved less effective, and in many instances spraying with arsenites proves altogether ineffective. In most cases, except with early fruit, only one spraying has done no good whatever. The reason of this is obviously due to the wet weather in the early part of the summer which removed the arsenic and left the fruit unprotected. When two sprayings have been made, especially after the rains, the good effect has been plain.

In my own experience in Santa Cruz mountains I found that all early apples, and also Bell-flowers, were pretty free, from five to ten per cent of the latter only being affected. The damage done to the trees by spraying (strength 1 pound to 180 gallons) was again, as last year, quite severe, and the same circumstance presented itself as last year, that trees in position to dry out quickly (after damp nights) suffered but very little, showing conclusively that the damage was due to the arsenic being leached out by the moisture during the night. My statement made last year that the strength of solution endured by different varieties varies considerably, is again supported by experience elsewhere, particularly in the case of Bell-flowers. This may perhaps be solely due to their dense foliage.

While the Bellflower with me was pretty clean, it was not the case with Esopus Spitzenburg, which proves itself very badly infested. As these two apples, Bellflower and Spitzen-

burg, were harvested but a short time apart, and were almost of the same degree of ripeness, the difference must be sought in other causes. The reason in this case was evidently that in the Spitzenburg and Yellow Newtown pippin also, but especially the first, there was a distinct second blooming some three weeks after the first, which did not receive any spraying, as there was only one spraying given. These blossoms, which were small and inconspicuous, the moth evidently made the most of, and the apples were so badly affected that they never reached any size, and although many were picked off, a great many fell between the vines growing among the trees and were lost sight of. This proves conclusively the necessity of picking off such secondary bloom.

In this connection I will call attention to the importance in all early fruit regions, such as Sacramento river, to not allow a second crop to develop. By growing early varieties, and observing this closely, it has been the experience of such men as Mr. S. Runyon that the codlin moth will do comparatively little damage.

But while my own experience has not been as encouraging as it might be, other people, partly following my advice, have succeeded very well. Mr. W. W. Brier of Centerville, Alameda county, used London purple. He reports his early apples, such as Astrachan and Alexander, free from worms. Fall apples, when sprayed only once, were badly infested, as well as winter apples, when only one treatment was given. But when two treatments were given, the last in the beginning of July (using a strength of 1 pound to 225 gallons), the improvement was great, resulting in having at least 50% of clean apples, against only 10% when not treated. Whether we can safely recommend so late a spraying may be doubtful, yet when the apple has several months to grow in, the danger of poisoning from eating it is infinitesimal, especially as it has been proved that the arsenic is gradually leached out of the compound.

In Coloma, El Dorado county, a widely different section and climate from Alameda county, and where dry nights prevail, it seems that one spraying accomplished as much as two with Mr. Brier, probably owing to the absence of rain and dew. Under date of Oct. 15th, Mr. A. J. Mahler writes: "We have used the mixture of Paris green, 1 pound to 160 gallons of water, for codlin moth; we gave the trees only one spraying in April (the 18th), and the result is that we have saved at least 50% of the apples treated. The apples that have been treated are large and of excellent color; the trees show no damage from the poison."

Mr. C. I. Settle of San Jose has obtained the best results of any one, although surrounded with badly infested orchards. He has succeeded in saving 75% of a very large crop of late apples—Yellow Newtown pippin and W. W. Pearmain, but it was done with no less than four sprayings with Paris green. The foliage was but little damaged when I saw them in August last. In answer to a letter addressed to Mr. Settle on this point, he writes, under date of Nov. 13: "I washed my apples four times with Paris green, using 10 ounces of the latter to 100 gallons of water, commencing when the apples were very small and washing about every 25 days, and saved 75% of the apples that were on the trees at picking-time. I also used bands, removing these every eight to ten days."

Knots on Roots of Fruit Trees.

Last month my attention was called to the condition of a large number of plum trees in a young orchard near Mountain View. Subsequently I visited the place and found that something like one-quarter of the trees were affected with knots on the roots. These knots were found below ground on the junction with the stock or on the Myrobalan root itself, on which root all of the trees were growing. All of the trees affected in this manner are sensibly smaller than those that are free. That these knots are the result of fungoid growth allied to the black knot I am quite confident, and the probability is that the disease is being propagated on the cuttings which produced the tree, which served as stock, the mother tree doubtless being affected. This is an additional argument against using cuttings of the Myrobalan stock, another being that the root system formed by them is often defective.

Similar excrescences are found on peach and pear root and have been sent me from different parts of the State. Young trees affected by them should be avoided, as under certain conditions they will result in the death of the trees. Such knots should, however, not be confounded with those sometimes produced by the tying material of a bud or graft being left in by accident. For trees affected by these knots I have recommended the complete removal, if possible, by cutting close into their point of attachment. If this is not possible without seriously injuring the roots, the tree had better be destroyed. When the knots have been removed the cuts should be washed over with a strong solution of bluestone, or better still, the following mixture put on it: 2 pounds of resin, 1 pound of beeswax, 1 pint of spirits of turpentine, $\frac{1}{2}$ ounce of carbolic acid. Melt the resin and beeswax by heat; when dissolved, add the turpentine and acid, the latter having been previously dissolved in a little alcohol or hot water.

The Fresno *Expositor* says the raisin shipments in 1888 were over 332 carloads, a total of 10,653,270 pounds.

THE IRRIGATOR.

Irrigation in Inyo.

We take the following extracts from an article written for the *Chronicle's* annual review, among which is the following on

Irrigation

"For the reclamation of probably the best watered 'desert' in or about the great basin we have:"

Ditch.	Miles.	Inches w'tr.	Acres.
Upper Bishop creek.....	15	10 000	20,000
Bishop creek.....	14	4,000	10,000
Rawson & Ford.....	—	4,000	8,000
Big Pine.....	—	4,000	8,000
Sanger.....	9	2,000	4,000
East Side canal.....	22	15 000	30,000
West Side canal.....	40	25 000	45,000
Stevens' ditch.....	11	4,500	7,000
Pihol's ditch.....	3	250	300

"Water now flowing in 15 miles of the East Side canal will this year transform a wide strip of sagebrush along the railroad into beautiful vineyards. Most of the foregoing are under construction, except the West Side canal, projected by ex-County Surveyor Seely. The Irrigation District organized under the Wright law for this enterprise has failed, and it yet offers a big show for private capital. Two schemes for the settlement of Eastern and foreign colonists are well under way. By no means has all the land been taken, and 20 sections or more will revert to the public domain this summer through failure of speculators to reclaim desert locations. Doubtless all the water is appropriated, but the unevaporated part will ultimately find its way back to the river channel and stay for a time the drying up of Big Owens lake. At the northern end, storage of water has been undertaken. All along the Sierras are natural sites for reservoirs and perennial streams affording infinite scope for Major Powell's surveys. Local land-owners have lacked the nerve to test the artesian proposition. Such experiment and the demonstrated fact that low spongy lands will produce crops without irrigation may yet materially figure in the aggregate."

The *Register* remarks on the above that the list of irrigating propositions under way or finished is not complete. To it add, for this section: The McNally ditch; the Hillside Water Company's enterprise; the Owens river canal; the Russell ditch. All are canals of some consequence. The McNally ditch has practically made the valley east of the river in this northern section; the Owens river canal will do for sandy lands west of town what the Bishop creek ditch has done for the region east of us; and the Hillside Company will convert the foothill lands to the west into vine-clad slope and productive "forties."

Irrigation Meeting at Tracy.

The meeting to take final action on the preliminary steps to organize an irrigation district on the west side of the San Joaquin river, under the provisions of the Wright Irrigation law, took place at Tracy Jan. 5th, of which the *Turlock Pioneer* gives the following report: The meeting was an enthusiastic one and the entire proposed district was fully represented. At the meeting held at Newman on Nov. 24th a tax of five cents per acre was levied on all land in the district, and the committee report that all but two readily paid the tax, which supplies ample means to carry on the preliminary work.

The route known as the Tulare grade line, including all the land on the west side of the San Joaquin valley, was unanimously adopted and a committee of five appointed to carry on the organization work with full power to act on all questions arising. The proposed district will include 310,000 acres of land. The following resolution was adopted:

WHEREAS, The great central valleys of California are to a great extent dependent on irrigation to bring out their full productiveness and to a great extent are comparatively valueless without irrigation; and

Whereas, There is an abundance of water for all if properly handled, but which now runs unappropriated to the sea, and which by the proper expenditure of a few millions of dollars could be stored in the mountains for use when wanted; and

Whereas, California has furnished hundreds of millions of gold to the United States Government at a time when it was much in need of gold; and

Whereas, It is stated that there is a large surplus in the United States Treasury unappropriated which should be distributed among the people by making improvements for their benefit; now, therefore, be it

Resolved, By the people of the West Side Irrigation District, in convention assembled, that our representatives in Congress be requested to use all honorable means to secure an appropriation sufficient to thoroughly examine the Sierra Nevada mountains and the streams thereof, with a view to ascertaining the feasibility of storing the water and the probable cost of the work.

The secretary was ordered to send copies to the Senators and Congressmen.

ORANGES FROM COLUSA Co.—We have received from N. K. Spect & Co. of Orland a cluster of four clean, handsome seedling oranges, which, when subjected to the final test, showed rind of moderate thickness, and proved juicy, well-flavored and fairly sweet.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

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Official Endorsement.

In consideration of a certain contract entered into this day between Dewey & Co., publishers, and the California Patron Publishing Company of San Francisco for the publication of a weekly Grange edition of the PACIFIC RURAL PRESS and the California Patron, as a monthly, resolved that the Executive Committee of the State Grange of California hereby designate and endorse the PACIFIC RURAL PRESS as the weekly organ and the California Patron as the monthly organ of the State Grange of California.

W. L. OVERHISER,
Master of State Grange of Cal.

A. T. DEWEY, Sec'y S. G. of Cal.
San Francisco, Cal., Jan. 11, 1889.

The Good Time at Haywards.

MESSRS. EDITORS:—The joint installation of the officers of Eden and Temescal Granges occurred at Haywards on Saturday, Jan. 12th, and was one of the most enjoyable meetings it has been our good fortune to attend. At an early hour members of Temescal Grange might have been seen wending their way to the station, there to wait with scant patience for the train which was to convey them to the "land of promise" (i. e., Haywards). On arriving, we found that we were quite a numerous company, and only for the thoughtfulness of Bro. Dennis, who was waiting with a two-seated conveyance, the "bus" would hardly have had capacity for carrying all at one trip.

At the hall, or rather church, where Eden Grange has her home, were found the busy sisters on hospitable works intent, as was shown later when the bounteous feast was served. All other business was deferred and installation of officers proceeded with; the Worthy Master of the S. G., Bro. Overhiser, acting as installing officer, ably assisted by Bro. Flint, State Lecturer, and Bro. Dewey, State Secretary. All the officers made neat little speeches expressing their love for the Order and its work, and promising zeal in the fulfillment of the duties of the office to which they were severally elected.

I said all the officers made speeches, but I should have excepted the "twin Secretaries," as Bro. Dewey styles them, who, being pretty well down the line, had time to think of many fine things to say, but had the wind all taken out of their sails when Bro. Flint, in behalf of some unnamed friends, presented them each with a beautiful Fifth-Degree pin. Though unable to say but little more than "thank you," it was not because they did not appreciate the kind feeling that prompted the gift, and it will always be cherished as a treasure and will remind them ever of their duty.

There were tears in many eyes when dear "Grandma Brooks" was installed Ceres of Temescal Grange. The remarks of Bro. Overhiser were very touching, and her reply full of love for her Grange home and friends. Bro. Overhiser said one reason he was anxious for the National Grange to come to California was that Grandma Brooks might take the last and highest step in our Order, the Seventh Degree.

After the installation was through with, W. M., Blackwood declared a recess till 2 P. M., and we were invited to partake of the collation so lavishly spread on tables that were almost groaning under the weight of baked beans and brownbread, chicken pie, cold meats in variety, salad, biscuits, and beautiful golden butter, cheese, pickles, jelly, pastry of various kinds, cakes too numerous to mention; oranges and French candy, tea and coffee, with real milk and cream—in fact it was the real Grangers' Harvest Feast, and much credit is due the sisters for the excellence of everything.

After all had been well supplied, we were called to order, and speeches from those who would favor us, interspersed with vocal and instrumental music from the young sisters of Eden Grange, a recitation from Jessie Weed of Temescal Grange, made the

time fly so fast that it did not seem possible that 4 P. M. had come.

Among those who spoke were Bro. J. V. Webster, Past State Master, Bro. McConnell, M. of Elk Grove Grange, Sister Russell of Eden Grange, Bro. Flint, State Lecturer, Sister Chatterton of White Oak Grange, Me., who rather startled some with her statement of the operation of the prohibition law in that State.

Bro. Dennis of Eden kept up his reputation of orator of Eden by a forcible speech in reply to the last sister. Bro. Chester, Past State Secretary, on being called upon, responded briefly. Sister Hollister (formerly of Wheatland, but now of Eden Grange) also made a few remarks. Sister Smith of Yuba City Grange expressed her pleasure at being present and her enjoyment of the day.

Bro. Dewey, State Secretary, paid a high compliment to the members of Eden Grange for their hospitality, and stated that the affairs of the California Patron had been settled by the company making the RURAL PRESS the weekly organ of the Order and providing for the Patron to be published monthly. Bro. Dewey invoked the aid of all members of the Order in sustaining the paper.

The Chaplain of the State Grange was Goodenough to favor us with a very interesting though necessarily short speech owing to the lateness of the hour.

Following is the literary program as rendered: Opening chorus by the young ladies of the Grange, "Behold the Song," recitation, Jessie Weed, "The Water-Mill," "The Song that Reached My Heart," Miss A. Obermiller; duet, Misses Dennis and Obermiller.

We were sorry the time had come to say good-by, but "time waits for no man," neither does the train, and wishing for a speedy return of this most happy day, we returned to our several homes feeling that it was a day to be marked with a "white stone," and had been profitably spent. I wish all the farmers who are not Grangers could have been with us and have been made to feel the necessity of their organizing and the benefit that would accrue to them if they would join the Grange. There is such an immense extent of country to be made into farms, and it would be so much more desirable if there was a Grange in each town. Can we not each exert ourselves to revive dormant Granges and organize new ones? Let us each do all we can in this matter, and if the National Grange comes here it will finish the work.

N. G. B.

The Sacramento Joint Installation.

MESSRS. EDITORS:—Sacramento County Pomona Grange united with Sacramento Grange, No. 12, last Saturday to install the officers for the year 1889. An inviting dinner was spread at noontide, after which the officers were installed by Bro. Wm. Johnston, assisted by Sisters G. W. Hack and Flo. Greenlaw. The elected officers favored the audience with a few short remarks, after which we were entertained by some of our visiting brothers. Respectfully,

ALICE L. GREENLAW, Sec.
Sacramento, Jan. 14.

Merced Grange.

MESSRS. EDITORS:—I am happy to say Merced has no more smallpox. On account of the scare we held no Grange meetings in December. We elected our officers January 5th. There was more interest manifested in the election of officers this time than I ever witnessed before. It is a good sign for an awakening of the Grange interests in Merced county. I hope we will continue in this good work, and all take a hand and try to entertain the Grange. Some call us stupid, but do not try to make it any more pleasant for those who do their best. We shall have a feast and installation on the first Saturday in February, our next regular meeting. A cordial invitation is extended to all the Granges in good standing. They will receive a hearty welcome. Merced Grange knows how to entertain right royally and will do her best at this feast. Fraternal yours,

E. S. ELLIOTT, Sec'y.

Colorado State Grange.

Our Eastern neighbor and nearest link in the fraternal Grange chain—Colorado—has just closed a very profitable and encouraging State Grange session. The Worthy Master, Bro. Levi Booth, closes a friendly letter by saying:

"The present meeting of our State Grange has been a very profitable one. We had about 100 in attendance and 60 took the higher degree. We formed a new Pomona Grange with 50 charter members. The prospect for the coming year looks bright."

To Old Subscribers of the California Patron.

We will send you the WEEKLY OFFICIAL GRANGE EDITION of the RURAL PRESS and the monthly issue of the California Patron both for one month, in order that you may examine and determine which of the two papers you prefer to have continued to you after that date, according to the terms plainly stated in our contract with the California Patron Publishing Co., published herewith.

Choose, then, which paper you prefer to receive, and notify us by letter, giving your name and post-office address plainly and in full, with complete directions as to your wishes in the matter. During the trial month no charge will be made for the paper you do not choose to continue.

We hope many will take both issues, and with a view to give or send one away for the good the copies may do the readers, our cause and our State.

However, if no word is heard from any subscriber by the end of the first month, we shall continue the weekly Grange edition of the RURAL PRESS, as successor to the weekly issues of the Patron, and discontinue sending the monthly beyond a single issue.

The next issue of the Patron, and the first as a monthly publication, will be issued for Saturday, February 2d.

We hope (after receiving a few copies at least) to hear from our readers how they like this new Grange edition of the RURAL PRESS.

Worthy Master Brigham at the National Capital.

MESSRS. EDITORS:—Worthy Master J. H. Brigham of the National Grange arrived here January 7th and will remain for some time. He is in consultation with Senators and Representatives relative to matters of legislation now before Congress which have the indorsement of the National Grange.

Colonel Brigham's well-known ability is an assurance that the farmers of the United States have an able representative at the right place—the National Capital.

This action on the part of the National Grange in sending its chief executive officer to see that the interests of the farmers of the country are properly presented to Congress will meet the hearty approval of the members of the Order and convince the farmers not members of the Grange that the Order means business.

The State Grange of Vermont has arranged through its Master, Bro. Messer, with Colonel Brigham to visit that State the latter part of January and deliver some 10 or 15 lectures in the interest of the Order.

We expect now to hear of a boom in Grange work in Vermont, and it would be money well expended for other States to follow the lead of the Green Mountain State and secure the services of Colonel Brigham. Fraternaly, ALEX. J. WEDDERBURN.

Washington, D. C., Jan. 8.

Grange Elections.

MERCED.—M. D. Atwater, M.; L. H. Applegate, O.; H. J. Ostrander, L.; E. D. Kahl, S.; Wm. P. Applegate, A. S.; Sister L. A. Atwater, C.; H. C. Healy, T.; Sister E. S. Elliott, Sec.; J. T. Lander, G. K.; Sister Mary Arthur, Ceres; Sister L. Robinson, P.; Sister E. Shriver, F.; Sister J. T. Lander, L. A. S.

SANTA ROSA.—E. A. Rogers, M.; Chas. D. Bonner, O.; H. Gregory, L.; Geo. Rogers, S.; Mrs. J. H. Newman, C.; J. Strong, T.; Miss Martha Lumsden, Sec.; S. F. Chinn, G. K.; Miss Fannie Gamble, Ceres; Miss Ella Sutherland, L. A. S.; L. C. Cnopius, A. S.; Mrs. Chas. D. Bonner, P.; Miss Ida Godman, F.

Installations.

Newcastle.....January 19
San Joaquin County Pomona.....February 28
Watsonville.....February 16

NOTE.—The Secretaries of Granges are requested to forward reports of all election and other matters of interest relating to their Granges and the Order.

YUBA CITY GRANGE installed its officers January 5. Owing to the wretched condition of the roads the attendance was not as large as on some former occasions, and only about half of the officers-elect were able to reach town and be installed. It was, however, thought best to proceed with the installation ceremonies with those present and finish at the next regular meeting in February. The Worthy Master-elect, J. B. Wilkie, was also absent, being somewhere in the north and east between Portland, Oregon, and St. Paul, Minnesota, laboring in the interest of the Sutter Fruit Company, of which he is a member. Mr. W. is establishing agencies for the sale of fruit, in which he has been very successful. But we digress. Not being here, of course

he was not installed; but he paid his compliments to the Grange by sending them gratis a box of specially selected Oregon apples that in size and quality can hardly be duplicated, even in Oregon, the land of apples. The Grangers at once gave him a unanimous vote of thanks, and then dispatched the apples with an appetite like a buzz-saw. The installation was, however, a grand success.—Sutter Farmer.

The Insurance Fight.

Frank Leach of the Oakland L. brings out his double gun and shoots brightly and left at greedy lobbyists and underwriters, thus:

It is reported that the boss lobbyist has notified the insurance companies that if they do not wish unfriendly legislation they must raise a sack of \$50,000 to give to him and his lambs. These infamous tactics may succeed; it is not improbable that the insurance companies may have to do as they are bid, for they have been successfully "stood up" before by the same highwaymen. The shame of it is that a branch of the State government can be prostituted to the purposes of blackmailers. Members of the Legislature who are capable of entering into such a plot have, of course, lost the sense of shame, but the people should feel keenly the disgrace of not being able to elect better men.

As for the insurance companies, our sympathies are not so much excited; their case shows how wrong invites wrong, and that injustice is never profitable in the long run. By charging exorbitant premiums the insurance compact has invited this attack, just as much as a man would invite highwaymen if he advertised that he would fill his pockets with gold and go out walking in the night on the back streets. We do not say that an agreement between insurance companies to maintain rates is in itself wrong; when started it was probably necessary to prevent ruinous cut-throat competition. But the same greed which stimulated the companies to that kind of competition before they had a contract stimulates them, after they unite, to demand unreasonable profits and bleed the property-owners. They cannot be content with fair profits, and by their tyrannous use of the power of the compact they have brought on themselves this terrible evil of a blackmailing lobby armed with the power of legislation. All around the affair exhibits the meanest aspects of human nature.

THE SOAP SWINDLE.—We see by our exchanges that small towns throughout the State are complaining of a new phase of an old swindle. Female agents, claiming to be from Chicago, canvass at houses, leaving a cake of soap as sample. They return and ask the lady to sign a printed "testimonial," the same to be presented to the grocers to influence the latter to handle the trade. The testimonials afterward turn up as "orders," calling for soap in various quantities at fancy prices. The wording of the so-called "testimonial" is very ingenious. We reiterate the old, old caution: Refuse to sign your name to anything for a stranger.

SEBASTOPOL GRANGE is reported as in good working order and prosperous. Secretary Geo. Harris, in a letter, refers to the installation on the 5th inst., and the visit of Col. Donahue and party, which was mentioned in our correspondence last week. Bro. Harris thinks that Sebastopol will soon have railroad connection with the outside world.

ROSEVILLE GRANGE feels that January 5th (installation day) was a day well spent for the good of the Order. Seemingly every office has been filled by the proper person and it is hoped that good feeling and harmony may prevail throughout the year.—MRS. M. F. LEAVELL, Sec.

GREETING FROM MAINE.—Bro. J. W. Lang, Member Executive Committee Maine State Grange, writes: "Maine sends her fraternal greetings from the pine-clad hills of the Atlantic to the vine-clad hills of the Pacific. May joy, peace and prosperity attend the Patrons of the Eureka State."

INVITATION TO NATIONAL GRANGE.—In the State Senate, Jan. 15, Senator Langford offered a resolution inviting the National Grange of the United States to hold its next annual session in this State, and instructing the Governor to send an engrossed copy to the Master of the National Grange. Adopted.

SANTA ROSA GRANGE installed its officers on the 12th inst., with the exception of the Assistant Steward, Pomona and Flora, who will be installed on the 26th.

The Transfer of the "Patron."

An adjourned meeting of the Board of Directors of the *Patron* Publishing Company was held at the office of the Secretary of the State Grange at 10 A. M., January 11th. Present, I. C. Steele, President, J. V. Webster, Vice-President, A. D. Logan, Treasurer, W. L. Overhiser, G. P. Loucks, S. T. Coulter and Secretary. Besides the above were present the following shareholders who participated in the meeting: W. Adams and Amos Adams of San Francisco, D. C. Feely of Sacramento, D. C. Feely of San Jose, Judge Blackwood and O. Dennis of Haywards, and T. Hooper of Rio Vista.

A. T. Dewey, Manager, stated that Dewey & Co. could not afford to carry on the publication any longer under the contract made Oct. 15, 1887, and with his partner was willing to surrender all claims under said contract, leaving the board free to make any arrangements or contract with other parties for the publication of the *Patron*.

No propositions being presented, Mr. Dewey made an offer on the part of Dewey & Co. for publishing a weekly Grange edition of the *PACIFIC RURAL PRESS*, containing four or more pages of Grange matter on an average, as the official organ of the State Grange, and for issuing the *Patron* once a month as the official monthly organ of the State Grange, which proposition embodied the essential features of the contract as it was finally adopted by the Board of Directors, upon a call of the roll, by a unanimous vote.

The offer of Dewey & Co. to advance \$1000 on the advertising and subscription accounts due the *Patron* Publishing Co. previous to Oct. 15, 1887, enabled the company (by the generosity of I. C. Steele) to provide for all debts due the association, whether any considerable amount is ever realized from the assets under the contract or not.

On motion, the board accepted the proposition, as finally submitted in writing, and the President appointed the following committee to draw up a contract: T. McConnell, S. T. Coulter, W. L. Overhiser, W. C. Blackwood and J. Chester.

The following resolution was offered by the Secretary:

Resolved, That the proposition of Bro. Steele to give the *California Patron* Publishing Co. a receipt in full for his claim against said company, amounting to \$1256.25, on condition that Secretary Chester accepts the \$1000 offered by Dewey & Co. as part of the contract this day made by them with the *California Patron* Publishing Co. in full for his claim of \$1517.18, which has been accepted by said Chester, be acknowledged with gratitude by this company as only equaled by his other acts of magnanimity to the *Patron* and to the Order.

Resolved, That Dewey & Co. give an obligation to said Chester for the amount of \$1000 as provided in said contract on the terms offered therein, and upon receiving a receipt in full of said claim and the entry by the Secretary on the books of the company of full settlement therefor.

Several directors objected to accepting the generous proposition of Bro. Steele, believing that means should be raised in some way to pay him in full, but the resolution was finally adopted with the feeling that due recognition of Bro. Steele's self-sacrificing spirit would be kindly recognized at some future time.

Brother Dewey and others having, with affectionate regard, alluded to the death of Brother Chandler, who was for several years an active and zealous member of the Board and Executive Committee of the California State Grange, the following, offered by Brother J. Chester, was unanimously adopted:

Resolved, That in the death of Brother Chandler this Board and Executive Committee here present have lost one of their most estimable members, and one of the most generous promoters of their labors in the interest of the Order of Patrons.

The labors of the day were completed after 10 o'clock P. M., and congratulations expressed by those present that the matter had finally been so amicably, and it was hoped satisfactorily and lastingly, disposed of.

It is hoped that the officers and members of the Order throughout California and Oregon will heartily and unitedly use their efforts to ratify this new arrangement with success by extending the circulation and usefulness of the newly endorsed official organ. That relieved from much of the care of providing for and conducting an official organ, more time and attention and hard labor can be bestowed upon the work of reorganizing dormant Granges and instituting new Granges throughout the jurisdiction than has been possible during the past few years.

As publishers, we pledge to do our very best to meet all reasonable demands that can possibly be expected of us under the new arrangements.

With the help of all our old friends, and the many new ones we shall try to deserve, we hope to make a success of the Grange organ and do our part in the front ranks, and do it well in a grand forward movement of the whole Order.

Fellow-Patrons and Matrons, what say you?

Bro. Mackie's Answer to "Pansy."

MESSRS. EDITORS:—"Pansy" has laid out a large field of labor for me in telling "the Grange what their correspondence should consist of, that influence and self-respect might be the effects."

In my contribution to that same number of the *Patron* on "Tulare Grange" I believe there is an installment—at least enough to show that I agree perfectly with all that Pansy has said.

It is to me a puzzling problem that every class of society can unite, with the exception of the farmer. A brother Granger tells me in his queer, quaint way that disunion and poverty is reduced to a science among the farmers. It looks like it. We have trades unions, Knights of Labor, boards of trade, articles of agreement between merchants, railroad corporations, federated corporations of every kind, with trusts and united deviltry of everything that means monopoly and oppression in this free land of ours, but no union among farmers. These poor innocent sheep think that the extent of their liberties and privileges is the right to vote for the wolf who should eat them. It never occurs to them to be represented by a respectable sheep who will see to the interests of mutton and wool. When will our politics cease to be influenced by Mason and Dixon's line? When are we to contend for principles that influence us to-day instead of the worn-out antecedents of parties who have long ago outlived their usefulness and are permeated all through with ways that are dark and tricks that are vain? How will "Pansy" or "any other man" tell how a union among farmers can be effected which will consolidate farming interests? The Declaration of Principles of the Grange tells on what farmers should unite, and the Grange is presumed to be the means by which this union shall be brought about. Then what? What is a farmer? He is the basis of society. Nearly all the wealth of the world is made from what he produces, but so situated that he is the most dependent instead of being what is his natural right, the most independent. He has permitted himself to be so situated that everything he buys to stock his farm with is at prices according to the pleasure of the merchant. If, like other men of business, he should need money in advance, not only must he give better security, at a higher rate of interest, but the avenues of access to it are blockaded with more expense and every means of vexatious hindrance.

Then after labor and vexation of spirit, if the elements grant him a crop, the whole social fabric is united in giving him as little as possible for it. And he assists society in this nefarious business. In order to produce cheaply, he lives as cheaply as possible. A wretched excuse for a dwelling, that the poorest tailor or shoemaker in a city would not dream of living in, is all that the farmer can afford, not enough often for common decency, let alone comfort. But then they have got used to this sort of thing and *can do it*.

Whether it be a farmer, a mechanic, or a laborer, society will endeavor to reduce them to the minimum by which life can be supported. It becomes then the duty of all who labor for society to raise the standard of their life as high as possible in order to share with society all the benefits of modern civilization. In this, society is also benefited, for it is for the general good that each individual should be living, so as to make himself all that he is capable of becoming—not in accumulation of wealth, but in all that belongs to the physical, mental, moral, and spiritual development of manhood which requires certain refinement of environment and freedom from embarrassing poverty.

To reach this condition, farmers must unite on a sound business basis, to buy what they need as near headquarters, with as little handling as possible. Then they must form a market for home produce where they can place their butter, eggs, etc., instead of having to peddle produce from store to store or from house to house; and for the heavier and more staple articles there should be headquarters in some commercial center, where their interests would be honestly looked after.

All this looks as of the simplest form, but it is too complex for the slipshodness of the average farmer to comprehend. It is not for want of natural shrewdness, for in a horse trade they can outlie a Chatham-street Jew, outtalk an auctioneer and brag more than any peddler of cheap jewelry. They are not even behind in the tricks of trade, placing the best potatoes and strawberries, etc., always on the top, and only he and the consumer can know what is in the center. And as for general ability, he is compelled to know a little of everything—to be a man-of-all-work.

The farmer is not lacking in natural ability, general intelligence and business tactics, but fearfully lacking in union ideas. It is for union that we must work. For in that union which produces strength the farmer should be master of the situation, and at least command the respect of the millions who are dependent upon him.

Please say to "Pansy" on the matter of that recipe for corned beef that she has it as I got it; and I find in other recipes since come to light the same proportion of $1\frac{1}{2}$ pounds of salt to the gallon. So far I have found such beef eatable enough, but as I do not like salt much better than an Indian, I could easily be persuaded to put only one pound of salt to the

gallon or just as much as will keep the meat from spoiling. Also my thanks to "G" for garden hints, and hope that he and others will continue the good work. J. W. M.

Tulare, Jan. 13th.

(Original)

The Order of Patrons of Husbandry.

The following essay read at the anniversary meeting of Sacramento Grange last month is worthy of perusal:

Worthy Master, Sisters and Brothers:—We have met on this occasion to celebrate this day as the 22d anniversary of our beloved Order, and to honor the men and women who 21 years ago laid the foundation of the Grange and built thereon the beautiful superstructure contained in our ritual, which is acknowledged by those who belong to other societies to be the most beautiful in phraseology and sentiment ever indited by man. And when we learn the purposes of its organization, the benefit sought to be conferred on the agricultural classes in particular and mankind in general, it commands our attention and wins our admiration, together with our united efforts to advance its cause and carry into effect its principles, which are as grand as any ever voiced by mankind.

And pray in what way is the Grange to accomplish the purposes of its organization? some one may ask. Allow me to say its mission is to go to the farmers of this country, inviting them with their wives, the partners of their purses and cares (I am sorry to say she gets the most of the cares, while he retains the purse), together with their manly sons and lovely daughters, within the secret recesses of a Grange home, and there, surrounded on three sides by impenetrable walls, while two strong and well guarded gates on the other shut out from intrusion the outside world, the farmer learns facts he can hardly believe—that he is being systematically defrauded out of his hard-earned gains, and that, too, by those in whom he had reposed implicit confidence. More than this, he discovers that the people of our towns and cities are far in advance of the tillers of the soil in questions of political economy, in business principles; that they are organized into societies to advance and protect their own interests, and reap such further advantage as accrue to thorough organization. And here within the sacred precincts of our Grange home, the farmers learn a great truth—that they are the ones who have suffered the most and to the greatest extent, because they have been the last to organize for mutual help and protection. But having learned this lesson, they are quick to profit by its teaching, and embrace the opportunity presented through the Grange to regain our lost estate; and by thousands, yes, by hundreds of thousands, the farmers have united themselves together as brothers and sisters, to do battle in a common cause, to develop among ourselves a higher and better manhood and womanhood—declaring to the world that we wage no war against class or business that is just and legitimate. With malice toward none and charity to all, we demand for ourselves a just share of the profits of our labor. We don't propose any longer to permit ourselves to be defrauded out of 64 per cent of the profits and products of our farms for the benefit of those who toil not, neither do they spin; but we propose by intelligent co-operation to reserve unto ourselves the greater part of this 64 per cent, and apply it in paying our debts, buying more and better clothes for our families, beautifying our homes, both inside and out, so that our wives may be proud, our children happy; while the brothers are delighted with homes presided over by lovely and loving wives, made lively and cheerful by the voices of happy and obedient children; filled with love and peace within, surrounded by plenty without.

But, Worthy Master, while our progress thus far has been great, grand and glorious, we must not forget our comrades who have been overtaken by misfortune; and while Sacramento Grange is rejoicing in the strength of a fully developed manhood, made happy on this occasion with the smiles and presence of many of our sisters and brothers from sister Granges, we are called upon to pause and shed a tear, as we are reminded that some of our Granges have halted, while others have fallen by the way; and it would seem both meet and proper that we should seriously consider at this time the means and best methods to be used to revive and infuse new and living vitality into their lifeless bodies. To this end it might not be considered improper for me to offer a suggestion, and as I aim to be practical in all things, I can best present my plan by asking one or two questions. First, I will ask our Worthy Treasurer, Bro. Reith, what is it that induces men to buy or rent land for the purpose of raising wheat? He will answer: When land will produce 30 or 40 bushels per acre, and you can realize \$1.25 per bushel, then people are anxious to become wheat farmers. Why? For the reason that it pays. I will ask the Past Master of the State Grange, Bro. Johnston: What has induced so many people throughout this State to engage in horticultural pursuits? He answers: The high prices realized for fruit in the past, with the expectation that good fruit and an unlimited market in the East will make it a paying business.

I would ask the Worthy Lecturer of the State Grange: Why is it that, when hops go hopping up to \$1 per pound, so many butchers and bankers hop around to get good

hop-land to go into the hop-raising business? With his face all wreathed in smiles as he thinks of the many dollars that hops hopped into his pockets, he observes: Take me for an example. Hop farms down the river, hop farms up the river, more hop farms out on the Cosumnes river, my home a mansion in the capital city of California. And who will deny that hop-raising is not a paying business?

By the foregoing observations, Worthy Master, you see the point I desire to make. If we would make the Grange what it was destined to be, the means to enable the agricultural classes to better their social, educational and financial condition, one important fact becomes self-evident: That while we ourselves can only know how well the Grange has fulfilled its mission as an educator, it yet remains our imperative duty to ourselves and to the Grange that we, who have been intrusted with its financial and business enterprises, see to it that they are made financial successes. We should know no such word as failure or defeat. With a store such as we have in Sacramento, where you can buy goods as cheap and in some instances 40 per cent cheaper than you could before we started our business, and the stockholders enabled to realize 10 per cent interest on their stock; with the successful operation of a Patrons' Mutual Fire Insurance Association in this county, insuring its members for less than one-fifth of one per cent, and possibly for one-tenth of one per cent, which has been done in New York, then will it be manifest to all that it pays to be a Granger. When men can feel the coin put or kept in their pockets, they will be only too anxious to join our ranks and reap with us all the benefits that accrue to the active members of the Grange.

And now, Worthy Master, one more observation and I am done. To-day our beloved Order has attained her majority. She has overcome all the afflictions that youth is heir to, and to-day she starts out on her mission in all the beauty of full-grown maturity. May it be our part to advocate its principles and defend its honor, and be sure that no word or act of ours shall bring a dark spot or tarnish the name or fair fame of our beloved Order.

GEO. W. HACK.

Valuable to Advertisers.

This week we print a largely increased issue of the *RURAL PRESS* to accommodate the entire list of subscribers of the *California Patron and Agriculturist*, which has been consolidated with the *RURAL PRESS* in a weekly official Grange edition. This "hitching teams" and doubling up the advertising power of the paper is an important consideration for all our advertising patrons.

It has been conceded that the *RURAL* was the most effective weekly advertising medium on this coast for many years. Certainly hereafter its advertising value to those who wish to reach the leading representative farmers, the most thrifty and reliable purchasers in the land, must be beyond comparison with that of any other journal on this coast, if not superior to any other in the United States.

Official Circular to Granges.

An official circular will be sent by the Secretary to each Grange in this jurisdiction, soon, giving the contract relating to the change in the publication of the Grange organ and other matters of importance to every Patron. Let every member attend the Grange and keep posted.

A BRAZEN FRAUD.—Our farmers should keep an eye open for the agent who sells the "wheat binder," who is swindling farmers in different parts of the West getting postal-card orders for one binder and raising them to 100. The "binder" is a small stick about 18 inches long, with a brass ferule on the end, on which there is a slot for fastening a string which binds the wheat.—*Salem Journal*.

FROM "FLORA."—Sister Pauline Newkom, Flora of the State Grange, writes from Yuba City with good faith and interest in the Grange, alluding hopefully to our next session at Sacramento.

THE *Carrier Dove* for January contains a fair lithographic likeness of Bro. I. C. Steele, with a brief but very good historical sketch of his life.

SACRAMENTO COUNTY POMONA GRANGE will meet January 22, 1889, at Grangers' hall, Sacramento, at 1 P. M.

SIXTH DEGREE CERTIFICATES.—Certificates of Sixth-Degree membership have been sent to the Secretaries of Subordinate Granges for all Patrons initiated in the degree of "Flora" at the late session of the State Grange.

THE meeting and harvest feast at Haywards last Saturday was all that could be desired, and reflected much credit on the officers, Eden Grange and those who participated in the exercises.

THE *Fresno Republican* says the prospects for one or two competing lines of railroad from San Francisco and Stockton to that place are first rate.



Gulbadan's Song.

All in a Garden fair I sate, and spied
The Tulips dancing, dancing side by side,
With scarlet turbans dressed;
All in a Garden green at night I heard
The glad voice of night's melodious Bird
Singing that "Love is Best!"

The shy white jasmine drew aside her veil,
Breathing faint fragrance on the loitering gale,
And nodded, nodded "Yes!"
"Sweetest of all sweet things is Love! and wise!
Dance, Tulip! Pipe, fond Bird, thy melodies!
Wake, Rose of Loveliness!"

"Yet," sighed the swaying Cypress, "who can tell
If Love be wise as sweet? if it be well
For Love to dance and sing?
I see—growing here always—year by year
The Bulbuls die, and on their grassy bier
Rose-petals scattering!"

All in that Garden green the Rose replied:
"Ah! Cypress, look! I put my leaves aside;
Mark what is 'mid this bush!
Three blue eggs in a closely-woven nest,
Sheltered, for music's sake, by branch and breast!
There will be Bulbuls! hush!"

All in that Garden green the Bulbul trilled:
"Oh, foolish Cypress! thinking Love was killed
Because he seemed to cease!
My best Belov'd hath secrets at her heart,
Gold seeds of summer-time, new buds to start;
There will be Roses! peace!"

Then lightlier danced the Tulips than before
To waftings of the perfumed breeze, and more
Chanted the Nightingale.
The fireflies in the palms fresh lanterns lit;
Her zone of grace the blushing Rose unknit,
And blossomed, pure and pale!

—Sir Edwin Arnold.

Women Don't Want to Vote.

[Written for the RURAL PRESS by ASSENATH CARVER COOLIDGE.]

There was silence in Car 1400. A big fat man with a big red face and a small red nose, squeezed himself into a seat with a pretty young girl and asked her to dine with him at the next eating-house. Then he shuffled over a bundle of documents, one of which he laid in her lap.

"That," said he, in a loud voice, "is a bill to let women vote, got up by a strong-minded critter in my district."

The girl took it up, looked at it, smelled of it, and then handed it back.

"The truth is," continued the fat man in still louder tones, as though he meant to make the whole nation hear, "the truth is, women don't want to vote."

"They don't, hey?" said a lean woman who sat on the opposite side of the car, throwing back her veil and bracing herself up with a hand on each seat. "Hev you got any proofs handy?"

"Plenty, ma'am. Hundreds of 'em have told me so with their own lips."

"And of their own accord, 'thout bein' jammed into a corner?" said the woman, peering around at the girl.

"Yes ma'am," bleated the fat man; "absolutely of their own free will."

"How many mile did they come to tell you that?" asked the woman.

"I never asked them how many miles they came," said the fat man, shooting a sarcastic glance at the woman across his small red nose.

"I never ask impertinent Yankee questions."

"An' didn't you ask 'em to dine with you nuther?" said the woman, smiling at the young girl.

The fat man cast a look of red indignation at the lean woman, and another silence would have ensued except for the tittering of a few of the women passengers.

"I asked for information," said the woman, after a two-minute's pause. "My experience haint ben a mite like yours. I beg your pardon, sir, but would you object to tellin' me where you keep yer proofs?"

"In my head," snapped the fat man.

"Waal, that's whar I keep mine mostly," said the lean woman, "but I've got some on 'em to hum locked up in an ole hair trunk; but they're all jest to the contrary o' yours; an' I didn't pay nuthin' fur nuth on 'em, nuther. I didn't offer nobody no dinners nor dimons nor silks nor eatins nor any kind o' vittals nor dry goods. 'Pon honor I didn't, an' I kent see into it how our tu proofs should be so ontirely opperite. I swan tu man I kent."

The fat man stiffened up in his seat like a brick, a red brick, seated his eye-glasses across his little red nose and plunged into his newspaper with a deep and desperate plunge.

The lean woman continued:

"Come tu think on't, mister, I shouldn't wonder of them women 'tyu speak on wuz tu young tu vote, enyhow. Mebbey tha wuzent more'n sixteen or seventeen at the most, ur mebbey tha wuz hoazin'. Tha du hoax like tunket sometimes. They pretend tha don't

want a thin', wouldn't look at it, nor smell on't hardly, when they're hankerin' fur't the wunst kind, an' wud grab it up quicker'n lightnin' of yer baak wuz turned. It makes me think of a dorg I hed charge on once. I hed charge on one twice't, but this wuz the fust charge. He wuz a fine huntin' dorg, full grown and handsome, but very young, scassely more'n a pup. My brother left him for me tu keep while he went tu the war. We hedn't any huntin' fur the critter tu du on our promises, so I thought I'd train him up fur an ornamin't, ur a sort o' house pet yu know—an teech him as many of the domestic vertews as he'd be apt ter hold. So I trained an' trained an' teecht him jest what things he must tech an' jest what he must leave unteched 'til I thort he must be nigh perfect. Would a' gin' 'im a diplomer of he'd axed fur one; but he didn't; p'raps he didn't hev so much faith in his trainin' as I did. My faith was perfect. It was pinned onter that dorg as fast as faith's pins could pin it. I hedn't never put him tu no great tests, I don't bleeve in temptin' dorgs no more'n foaks, peticularly when ther young; but I hed faith tu bleeve that a dorg who'd ben raised as I'd raised that dorg couldn't help bein' honest an' straightforrd tu say the least; but I got awfully deceived in that dorg.

"One day father killed a chicken and laid it on the woodhouse bench.

"Dorg won't touch that chicken, I s'pose," said father.

"Oh no!" said I; "you see he won't even look at it."

"An' sure 'nuff he trotted along by my side, parst the dead chick an' baak agin, with his nose high in air. He wouldn't even lower his nose enuf tu look at it, much less smell on't. He even went so fur as tu turn his head the opperite way as tho' he wuz turribly interested in the woodpile ur barn door.

"Well," said father, looking at the dorg with admiration in his eye, "I guess he's tu well fed, enyhow, tu eat undressed chicken."

"Father was one who pinned his faith as firm on feed as I did on edgeration. I thought well of it, too, fur an extra guard; so I went off saying to myself: 'Ther's nothin' like treatin' even a dorg well. Edgerate him and feed him well an' it makes an honest dorg of him.' Full o' these elevatin' thoughts I went tu the winder an' lookt owt, an' as sure as yu live their wuz that air good dorgy—that air honest dorgy—that air well-edgerated an' well-fed dorgy, a kiverin' up that air chicken with autum leaves!"

"He warn't hungry an' didn't want to eat it, of course not, but yu see he had wild huntin' blood in his veins an' he sort o' hankered fur sumthin' like game.

"I didn't keer so much fur the chicken, but tu think that air dorg 'ad took s' much pains to fool me. I tell yu whar 'tis, I've lost my faith in dorgs an' in everybody else who pretends tha don't want things it's natral fur 'em tu hev, and it's my advice tu yu, mister, not tu leave the ballot-box a lyin' round loose. I guess mebbe women's got sum o' the wild votin' blood o' the Adamases and Jeffersons and Linkenses in their veins an' they can't be trusted with the ballot-box tho' they stick up thur noses an' say they don't want nothin' tu du with it. No sur-ee, tha can't be trusted tho' yu bring 'em up tu despise it an' tu love the kitchen an' female prayer-meetin' an' feed 'em up with candies an' invite 'em tu dinner at evry station. They ain't hungry fur vittals, mebbey, but they'll take the ballot the fust good chance tha git, yu better bleeve."

The lean woman ceased. The train rumbled up to the eating station. The fat man waddled out, but the young girl did not accompany him.
Goleta, Cal.

A Happy Home.

[Written for the RURAL PRESS by ADA E. TAYLOR.]

A happy home! Ah, ye who have known such will never know and never fully appreciate the true blessedness and pure love those few words contain. They hold in their power the summit of all earthly happiness. The greatest care possible should be taken in endeavoring to have a home where the air is filled with harmony and peace. Allow no cross, harsh words to enter such a sacred abode. The lack of thorough good temper is often the cause of a great deal of trouble and sorrow. The owners of sunny, cheerful and contented dispositions are blessed far beyond measure, and all through the trials of life they will find it a gift that will stand them in good stead, and to which nearly all their happiness is due. "A soft answer turneth away wrath" is a good family motto, and is very often successful in soothing quarrels. Harsh, hasty words often destroy the peace of more homes than even drink—that fatal curse to family happiness. A happy, peaceful home is a taste of heaven on earth, and our taste should be carefully cultivated, for such can be done, even though it seems hard for some at first. There is no excuse for unhappiness in any home, should every member of the household use soft, loving words to each other, and not get impatient because everything does not go just right. Too many men seem to forget that a kind word, a caress or a loving look are all the wages their wives get in return for their manifold labors. Every husband and father should leave all troublesome business cares behind as he turns his face homeward, and try to increase the joys of the family circle. How one's memory loves to dwell on one's

youthful home; but oh, how dearly, how sacredly, one holds that memory if his or her home was a happy one, if it was placed where no jarring, cross-grained words were allowed to enter. That was a home that calls one's memory back to days filled with joy and pleasure, and when the years were one long, unbroken summer's day, without the slightest cloud to fleck its heavenly purity. Ah, how little we know how much depends on our own selves for making such a home. We are all too liable to blame others and look at their faults and overlook our own. If we would commence with ourselves to be happy and cheerful, we would soon find out it would be catching among the others. Let every one try, and see what a speedy cure it will be for crossness and irritability of temper.

"Speak not hastily! words are living;
They are serpents with deep stings,
Or they may be bright words flying
With a love-light on their wings."

The Other Side.

[Written for the RURAL PRESS by DOROTHY SHIRLEY.]

How often are the praises of a "sunshiny woman" sung by poets and novelists! Whoever expects to find sunshine radiating from a man's presence?

Yet in the case of husband and wife, the man should be the stronger and nobler by very virtue of his position as head of the house.

"Every lassie has her laddie," the old song tells us, but they seem to be very queerly paired off sometimes in this funny old world of ours.

If girls would only learn to think of the character and habits of the man in whose hands they lay the result of their future life, instead of his heavenly eyes and drooping mustache, there would be far less weary, heartsick women to regret their wedding-day.

"To love, honor and obey." A man to whom a girl could safely promise these three things, would be one she could always rely on, lean on, and rest content in assurance that he would "love, cherish and protect" her—his part of the sacred marriage vow.

How could he better cherish her than by maintaining a pleasant, cheerful demeanor in her presence?

If she is tired and overworked, your very cheeriness will, in spite of herself, infuse itself into her tired brain.

No doubt you have been working hard as well as she, but it is done now for the day; and unfortunately women grow up heir to the various little trifling petty cares that would set a man crazy if laid upon his shoulders.

Any tired housekeeper would be much more cheerful over her washtub if she knew she could drown the remaining duties of the day in her last tub of suds. But these minor duties which keep tired hands and feet busy till bedtime are all for the comfort of you and yours. Remember this and be cheerful, O ye "man of the house!"

Do not be exuberant in your cheerfulness, but be quietly happy and contented in your home, and show due appreciation of the comforts her busy hands keep ready for you.

If she is a sensitive, loving woman, a fit of the blues in you will set her wondering where she has failed in wisely duty; she will rarely attribute it to business cares, and she will see from the supper you ate that you are not ill. She will wish she had taken time to crimp her hair last night, and wonder if you are thinking of Daisy Rosewood, who was so much prettier than she, and who, she knows, tried awful hard to get you.

Just tell her once in awhile that she is the dearest, sweetest little woman you ever knew, and watch her face color up and brighten. She will look happier for hours—you may even hear her singing softly about her work; she has been too tired of late to care to sing.

Tell her a joke once in awhile, and hear her hearty laugh once more; consult her about your business, and above all give her a pleasant look and smile when you look at her. Perhaps she has not been out of the house for a week; carry her sunshine to her, in your manner.

Wants or Wishes.

"I desire to insert this small advertisement in your paper to-morrow morning," she said.

"This," said the advertising clerk, looking it over, "will go among the 'wants.'"

"Have you no 'wish' column?"

"No, mum."

"Then, sir," said the young lady from Boston, haughtily, "you need not insert it. I simply wish a situation as governess. That is all. It is not a case of want. Is there any newspaper printed in English in this place?"—Chicago Tribune.

A UNIQUE MATCH-BOX.—Jack Wallace has quite a novelty in the shape of a match-safe. It consists of a section of a black oak tree, about six inches long, out just where a branch springs from the trunk. In the joint is an old worn-out mule shoe, with the nails bent just as it fell from the animal's foot. Jack's explanation is that, fourteen years ago, one of the Ten Eicks, while teaming in Trinity county, picked up the shoe and hung it on a twig growing out of the trunk, where it remained undisturbed for years. The twig had grown to a sturdy branch,

three inches thick, in the meantime, the wood growing over the shoe and holding it as tightly as in a vise. Some time ago a friend cut out the section holding the shoe and presented it to Jack, who bored holes into it for matches and placed it on the counter.—Redding Democrat

The Eclipse as Seen from Howell Mountain.

[Written for the RURAL PRESS by MALLIE STAFFORD.]

Happy it was for the thousands of eager sight-seers that the day was a lovely golden one, amid the recent long and dreary rainy period. Our point of observation, though about 100 miles south of the direct line of totality, was yet one highly favorable to the viewing of the splendid spectacle, being on the northern slope of Howell mountain, in Napa county.

It was during our late New Year's lunch that we first noticed that singular diminution of the sun's brightness, so peculiar in eclipses, and immediately our little party hastened to the top of the hill as the best point of observation. Here we had a clear and unobstructed view. The dark shadow of the moon had already crept across the western margin of the sun, describing a dark crescent on the luminous body.

With the aid of our smoked glasses we slowly and silently watched its progress and the singular change in color that nature was assuming. At the same time a chilliness pervaded the atmosphere, unlike that of night or cloudy day.

We did not fail to observe and admire the beautiful crescent-shaped images, formed by the sun's rays, glancing through the foliage of trees, small twigs and branches, forming a lace-work of crescents, shadow and sunlight, of exquisite and singular beauty, which is one of the most interesting as well as among the most beautiful and singular phases of an eclipse, and peculiar only to eclipses.

About the grand and glorious orb of light, a few thin, transparent clouds lingered, but not enough to mar the scene.

With almost breathless interest we watched the opaque body, now rapidly and silently shutting out the glorious effulgence of day. What a grand and impressive sight! Now, now is the supreme moment! It is almost obscured, save on the lower rim a stream of splendor, like a thin jet, pours out irradiating the dark, rosy and emerald glow of the landscape. We lower our glasses and view with naked eye the magnificent spectacle, a sight so rare and grand that, once seen, remains in memory while life lasts.

Surrounding what seems to be the black ball of the moon is a corona of softened light, reminding one of the coronal of glory, seen in pictures of the old masters around the brow of Christ and the Madonna, but a light indescribable and different from anything the eye has ever beheld.

The soft and beautiful circle is unbroken, save at its lower edge, where streams even at this most critical moment a transcendent gleam of that rare splendor whose full glory has momentarily been eclipsed. It lingers but a moment, the beautiful corona of softened light!

We gaze awe-struck and see deep in the blue vault of the heavens; the stars of night show forth like magic. Close to the sun a most brilliant orb appears. What a rare transformation of nature! This effect of weird darkness is heightened and intensified by the near presence of the shadowy and somber mountains on the south and west, and the dark belt of pine and stately redwoods on the north.

Far away to the east a rosy and morning-like glow on the horizon greets the vision, as if heralding the approach of the god of day.

In the west also and far to the north and compassing the valley and the grandeur of the mountains, there shines that radiant glow on the horizon, rendered still more lovely by the thin and vapory clouds that linger like reluctant visitors loth to depart ere they have witnessed and played a part in this rare and impressive scene.

A few seconds only elapse, and it has passed the period of totality; like a beautiful vision the lovely corona disappears, and on the western side of the black opaque body of the moon a thin golden crescent emerges, which growing larger, dispels the darkness and gradually floods all nature with warmth and light.

At our point of observation, the darkest period, in which the eclipse was almost total, did not exceed more than 20 or 30 seconds, but short as it was, it was long enough to allow of a fine view of the unparalleled spectacle, and note the pulsation in the time-beat of Nature, as if the life forces of the universe had for the time being suspended respiration, and old Earth had ceased in her orbit and hung a motionless object in the darkness of immensity.

There was a noticeable effect on certain species of animated nature, particularly on the birds and domestic fowls. As the darkness increased, the chickens and barnyard fowls, with one accord, sought their homes, and naturally, as at night, went to roost.

A few moments later, when the god of day asserted his power and might and shone forth in splendor, they all hopped down, and with much talk and cackle in earnest speculation, strode forth into the light of day, in wonder, doubtless, at the most unaccountably short night.

Dressing Well With Small Expense.

[Written for the RURAL PRESS by M. W.]

"How are you? I knew you three blocks away and waited for you."

"How did you know it was I at that distance?"

"Why, by that light-blue veil and those light, tan-colored gloves."

"Is that a reflection on my toilet? You know I cannot afford a veil and gloves to suit every dress."

The above conversation was forced upon my ears as I stood at the corner of a street a few days since ready to take a car when it came along. I looked at the last speaker. Her veil was a pronounced blue, her gloves light tan, her dress a dark maroon, her parasol black, and her hat a brown straw! Yet she had the appearance of a lady of education and refinement. How often we see this bad taste in dress. If a lady can only afford one veil or one of any other article of dress at a time, why will she persist in getting it the most pronounced gay color? Why not in such a case decide at once to take black? It is well known that black goes with anything. With a black parasol, gloves, veil and wrap, any dress can be worn. I say if a lady can only afford one of any of these articles. But in fact it is no more expensive to have two or three veils, etc., than one—it all amounts to the same at the end of a year. It is simply expending a few dollars more and in the question of veils a few cents more, at one time, and surely any lady would do that to earn the reputation of being a lady of taste. You wear these articles no oftener, and it is really a satisfaction when, for instance, you put on your brown dress to select the veil, gloves, etc., to harmonize. You may say you cannot take the time to hunt them up, or you don't care. Then pay some attention to this subject for the sake of your friends who have taste for harmony in colors, and don't allow your own bad taste to grate upon their sight. If you are in a hurry to start on your shopping tour, business, work, or whatever may call you on the street, and you do not feel as though you could take time for these details, then consider the subject the night before and make the necessary preparation.

During the past few weeks I have noticed many hats and bonnets trimmed with white ribbon. It is not only out of season, but when the ribbon is cheap and soiled is positively disgusting. White is more appropriate for the early spring, and then for children, or for ladies who are in their carriages, but decidedly too conspicuous for street wear, and especially when put on felt or coarse straw hats or any material which represents the "rough and ready," and white is considered by those of genteel taste vulgar except for the house, or evening or any dressy occasion; also for a picnic when worn by young people, and then it should be in wash goods such as mull, lawn, linen, organdie, batiste, etc., but never in silk or satin as I have seen at picnics composed of real ladies and gentlemen. I have also noticed on the street ladies wearing black gloves with the inside gores of white and large coarse stitching on the back of white silk. Can anything be more conspicuous or more vulgar? They should only be worn with a harlequin dress, and then in a masquerade or on the stage.

I have heard people—and especially gentlemen—say that such or such a lady was beautifully dressed, and yet they could not tell what she wore. Such a dressed lady is a true artist—nothing conspicuous or loud, but showing a perfect sympathy, so to speak, in the entire toilet. Such a person would never mar her appearance by adding something noticeably loud, no more than she would put a blot on a beautiful picture; nor will she ever give her friends a chance to say, "I knew you three blocks off."

Lincoln on Jefferson.

George N. Stroat of Nebraska City has an autograph letter written by Abraham Lincoln in 1859. It is an answer to an invitation to attend a banquet in Boston on the anniversary of the birth of Thomas Jefferson. The letter concludes with the following tribute to the author of the immortal Declaration of Independence:

"All honor to Jefferson, to the man who, in the concrete pressure of a struggle for independence by a single people, had the coolness, forecast and capacity to introduce into a merely revolutionary document an abstract truth, applicable to all men and all times, and so to embalm it there that to-day and in all coming days it shall be a rebuke and a stumbling-block to the harbingers of reappearing tyranny and oppression."

YOUNG FOLKS' COLUMN.

Mollie's Success.

"I do declare, wife, those hens are more plague than profit. We don't get eggs enough from them to amount to a row of pins, and they are always getting out and doing some mischief. I have a good mind to kill every one of them."

"Oh, papa, don't! don't!" exclaimed little Mollie. "Let me take care of them. I know I can do it, and they shan't scratch up any more beds or do mischief anywhere."

Mr. Howard looked at his little daughter in surprise, and said: "I guess you wouldn't make out much in the hen business. No, the best thing to be done is to kill them all off."

Mrs. Howard said: "You might let Mollie try, James. I believe I would, really."

"Oh, yes, do, papa. I have heard you say there was nothing like trying. Now do let me."

"Well, Mollie, I will, and I'll tell you what I will do. You take care of the hens, and you may have your choice of any one out of the flock to pay for the trouble. You may have all her eggs, and chickens if she has any, to do what you please with. You can sell them, and who knows but you may get rich where I have failed." With this Mr. Howard went off laughing.

The first thing Mollie did was to put on her sunbonnet and go out and get the hens into the henhouse. She then fastened the door, which her father often neglected to do, so no wonder his hens got out and made trouble. To tell the truth, the reason Mr. Howard's hens did not lay their master many eggs was because he did not care for them as he ought; he was generally very busy with other matters, and so neglected them.

Mollie chose for hers a black and white one, which she called Speckey. She made up her mind to take good care of them all, and as there were only sixteen of them, it did not seem like a very burdensome task. It was not long after Mollie took charge of the hens before eggs began to be more plenty than they had been for a long time. Speckey laid her full share, and every penny her eggs brought in Mollie put away in a bank which she purchased for the purpose. Her brother Frank, who was a little older than Mollie, called it her "hen fund."

In due time there were seventy-five little chickens to be cared for. This made Mollie happy, but still she was not quite satisfied, for, strange to relate, Speckey seemed to have no ambition to raise up a family for her benefit.

"Oh, dear, mamma!" she said to her mother one day, "Speckey never will do anything. I wish I had taken Whitey for mine. She has got thirteen chickens already."

But "it is always darkest just before the dawn." Only a few days after this, Speckey seemed inclined to follow Whitey's example. When Mollie went out to feed the hens as usual, Speckey was on her nest. Mollie did not disturb her, but looked again two or three hours later and found her still there. Upon discovering this Mollie started for the house as fast as she could run, and was in so much of a hurry that she did not notice the cat which lay on the kitchen doorstep blinking at the sun, and stepped on her tail, stumbled over the dog standing near, and as she fell, caught hold of the table-cover, pulled it off, and with it a pitcher. The cat yelled, the dog barked, the pitcher went down with a crash, and Mollie screamed. This brought her mother and Frank to the scene of action. Frank said he thought a cyclone had struck the house. Mrs. Howard remarked that a cyclone couldn't have made much more racket, at any rate. Mollie picked herself up, and then said:

"Oh, mamma, Speckey is going to set. Please give me some eggs, and come out and help me put them under her."

Frank asked her why she didn't put the eggs under Speckey herself. To which Mollie replied:

"Of course I can't do it. I don't feel well enough acquainted with the hen!"

"You're afraid; that's what's the matter," retorted Frank.

Mrs. Howard righted things somewhat, reprimanded Mollie for her haste and carelessness, and then picked out thirteen nice eggs and went out with Mollie to help set Speckey.

Frank thought he would have a little fun at his sister's expense, so he told two of his mates about the "great contract," as he called it, which Mollie had made with her father, and how she had just put thirteen eggs under old Speckey.

The boys declared it would be fun to fool Mollie, so they robbed a wild goose's nest they had found that day and substituted one of the eggs for one of those in Speckey's nest.

In three weeks' time Speckey came off with what Mollie supposed were thirteen chickens, but you and I know that one of them was a little gosling. Mollie soon discovered that one of her chickens was a "homely thing." And when it grew to be a little older, it would run into every pool of water it could find, much to Mollie's and Speckey's alarm. Poor Speckey would screech and flutter around till the little goose took to dry land again. Mollie said that chicken didn't know anything, and one morning when she found it dead, she was glad of it, for

it had been no comfort to anybody. When the boys got around to tell her the trick they had played upon her, she was vexed enough and would not speak to any of them for two or three days, as she said they had imposed upon her.

The rest of the flock lived through all the ills that chickens are heir to, and were in fine condition for the market in the fall, so Mollie sold them, and when she came to add the money she received, with her egg money in the bank, found she had \$8 in all. With this her father bought her a sheep and two lambs. The next spring these grew to a flock of six, and in the fall she sold them to her father for \$25. This, with the "wool profit," as Frank called it, amounted to \$30. The boys declared she was nothing more nor less than a "bloated bondholder," and advised her to retire from business. She took their advice, invested her money in a sealskin muff and boa, of which she was very proud, and she had reason to be, for she had earned them all herself.—*Mary Morrison in Portland Transcript.*

GOOD HEALTH.

INJURIOUS EFFECTS OF NOISE.—A writer in the *Popular Science Monthly* asserts that noise is one of the most injurious influences of city life. It may not be sufficiently loud to attract the attention of those accustomed to it, but, if continuous, it acts as inevitably upon the nervous system as water in dropping upon a stone. Experiments made upon animals show that when they have been subjected for a number of hours to the vibration of a tuning-fork, their nerve centers become irritated, as certainly as muscular fibers would be affected by an acid or electric shock. The injurious effect of ordinary noises has been recognized by the authorities of European cities, and in some cases the nuisance has been suppressed. Heavily laden carts are not admitted to certain streets of Berlin, and in others they are only allowed to pass on condition that the horses walk. The street cars at Munich have no bells, and those of us who live in places where these bells are not used on Sunday can testify to the relief attendant on the consequent "peace and quiet." The amount of the matter seems to be that the city dweller must regard noise as one of the necessary evils of his condition—one to be borne philosophically, and requiring a large stock of grace and patience. Happy, indeed, are they who, through the long hot months, are only disturbed in their morning slumbers by the song of the birds or the crowing of cocks.

A BUG IN THE EAR.—If you get a bug in the ear, drown him out and be quick about it too. Writers say when a bug gets into the ear, do not be frightened, but drown him with oil or warm water. There is no philosopher, remarks Dr. J. Herbert Claiborne, Jr., in the *Medical Classics*, who could sit unmoved with a bug or fly stamping a tattoo upon his eardrum. Yes, be frightened, for it will facilitate your movements. Sweet oil is perhaps the best thing to keep him from moving—that is, the first desideratum. The oil, by its thick consistence, will so entangle and bedraggle its legs and wings that the intolerable noise will be stopped. If oil be not at hand, use any liquid that is not poisonous or corrosive. Water will probably be within the reach of every one. This is also more liable to float him out, too, than either sweet oil or glycerine. It has been suggested to blow tobacco smoke into the ear to stupefy the insect. We cannot indorse this advice; tobacco smoke blown into the ear of a child has been known to cause alarming symptoms. When the movements of the intruder have been arrested, syringe the ear gently with warm water. All manner of insects and bugs have been found in the ear, but you can never tell in a given case who the rude caller is that is knocking at the door of your brain till you have him out.

PREVENTION OF ALL INFECTIOUS DISEASES.—The science and practice of medicine and surgery are undergoing a revolution of such magnitude and importance that its limit can hardly be conceived, says Dr. Austin Flint in *Forum*. Looking into the future, in the light of recent discoveries, it does not seem impossible that a time may come when the cause of every infectious disease will be known; when all such diseases will be preventable or easily curable; when protection can be afforded against all diseases such as scarlet fever, measles, yellow fever, whooping-cough, etc., in which one attack secures immunity from subsequent contagion; when, in short, no constitutional disease will be incurable, and such scourges as epidemics will be unknown. These, indeed, may be but a part of what will follow discoveries in bacteriology. The higher the plane of actual knowledge, the more extended is the horizon. What has been accomplished within the past ten years as regards knowledge of the causes, prevention and treatment of diseases far transcends what would have been regarded a quarter of a century ago as the wildest and most impossible speculation.

DANGERS OF CLOSE SHAVING.—It is said on good authority that very close shaving is a dangerous thing to follow up for any considerable time. One who claims to know writes as follows: "Do you know what a close shave means? I never did until I looked at a face the other day through a microscope which had been

treated to this luxurious process. Why, the entire skin resembled a piece of raw beef. To make the face perfectly smooth requires not only the removal of the hair, but also a portion of the cuticle, and a close shave means the removal of a layer of skin all around. The blood-vessels thus exposed are not visible to the eye, but under the microscope each little quivering mouth holding a minute blood-drop protests against such cruel treatment. The nerve tips are also uncovered, and the pores are left unprotected, which makes the skin tender and unhealthy. This sudden exposure of the inner layer of the skin renders a person liable to have colds, hoarseness, and sore throat, and it is only that the face and neck are pachydermatous—"

RULES FOR FAT PEOPLE AND FOR LEAN.—To increase the weight: Eat, to the extent of satisfying a natural appetite, of fat meats, butter, cream, milk, cocoa, chocolate, bread, potatoes, peas, parsnips, carrots, beets; farinaceous foods, as Indian corn, rice, tapioca, sago, cornstarch, pastry, custards, oatmeal, sugar, sweet wines, and ale. Avoid acids. Exercise as little as possible; sleep all you can, and don't worry or fret. To reduce the weight: Eat, to the extent of satisfying a natural appetite, of lean meat, poultry, game, eggs, milk moderately, green vegetables, turnips, succulent fruits, tea or coffee. Drink limejuice, lemonade, and acid drinks. Avoid fat, butter, cream, sugar, pastry, rice, sago, tapioca, cornstarch, potatoes, carrots, beets, parsnips, and sweet wines. Exercise freely.

ONIONS AND BEEF.—What is the most strengthening food for a convalescent? Well, you know the beef-tea theory has been exploded. The most life-giving and digestible food that can be given to one just recovering from an illness is chopped beef. Just take a pound of raw beef, cut off all the fat, slice two onions, and add pepper and salt. Then chop the onions and meat together, turning them over and over until both are reduced almost to a pulp; then spread on rye bread and eat as sandwiches. People talk about celery being a nervine, but let me tell you that there is nothing which quiets the nerves without bad results like onions. The use of them induces sleep and much strength is obtained from them.—*Ex.*

EFFECTS OF LIGHTS ON THE EYES.—The practice of having night-lights in children's bedrooms is pronounced very injurious by well-known physicians. Instead of allowing the optic nerves the perfect rest afforded by darkness, the light keeps them in perpetual stimulation, with the result of causing the brain and the rest of the nervous system to suffer.

DOMESTIC ECONOMY.

Tested Recipes.

[Written for the RURAL PRESS by ADA E. TAYLOR.]

Cocoanut Pudding.—One-half pound butter, one small cup white sugar, whites of eight eggs whipped to a froth. The white portion of one cocoanut grated. Grease the pan with butter and bake. Desiccated cocoanut answers as well as fresh. To be eaten with cream and sugar.

Ice Cream Cake.—Take the whites of five eggs, 1½ cups of sugar, one-half cup of butter, one cup of milk, three cups of flour, and four teaspoonfuls of baking powder. Separate this mixture and color half with strawberry coloring; flavor this with vanilla, and the other part with lemon. Put in the white and then the pink. Bake slowly.

Delicious Apple Sauce.—Pare and slice thin as many apples as you wish. Put them in a tin pudding-dish, with enough sugar to make them sweet, and a little water. Bake slowly until soft. They will turn a rich red and have a flavor far exceeding stewed apples.

Bread Pudding.—Have the pudding-dish nearly full of fine bread-crumbs, pour over enough boiling milk to more than cover them. Warm one-half cup of butter, and mix thoroughly with one cup of sugar and three eggs well beaten; stir this gently in the pudding, and flavor with lemon. Bake until a delicate brown.

Pudding Sauce.—Dilute half a glass of currant jelly with a teaspoonful of hot water; stir in two tablespoonfuls of butter and the same of sugar. Set it over the fire, and when it boils add a teaspoonful of cornstarch wet with a little cold water; as soon as it thickens it is done. Flavor with lemon.

Plum Pudding.—Chop half a pound of fresh beef suet, mix with it a pint of stale bread-crumbs, a cup of flour, a cup of brown sugar, a cup each of raisins and currants, a pound of citron cut fine, the juice and grated rind of one lemon, a wine-glass of brandy, one cup of blanched almonds chopped fine. Dissolve a teaspoonful of soda in a little hot water, add to it half a cup of molasses and three beaten eggs. Mix with the other ingredients and put in a greased mold; boil steadily for eight hours. To be eaten with brandy sauce.

Cream Pie.—Half a pound of butter, a tea-cup of sugar, four eggs, two tablespoonfuls of flour, well mixed with a pint of sweet milk; stir. Flavor with vanilla. Bake in deep pans lined with puff paste.

Baking Puddings.—Puddings bake much nicer when the dish is set in the oven in a pan of hot water—custards especially.



A. T. DEWEY.

W. B. EWER.

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THE HOME CIRCLE.—Gulbadan's Song; Women Don't Want to Vote; A Happy Home; The Other Side; Wants and Wishes; A Unique Match-Box; The Eclipse as Seen from Howell Mountain, 54. Dressing Well With Small Expense; Lincoln on Jefferson, 55.
YOUNG FOLKS' COLUMN.—Mollie's Success, 55.
GOOD HEALTH.—Injurious Effects of Noise; A Bug in the Ear; Prevention of all Infectious Diseases; Dangers of Close Shaving; Rules for Fat People and for Lean; Onions and Beef; Effects of Light on the Eyes, 55.
DOMESTIC ECONOMY.—Tested Recipes, 55.
FRUIT MARKETING.—The Year's Work of the Fruit Union, 58.
AGRICULTURAL NOTES.—From the various counties of California, 60.
THE VETERINARIAN.—Splenic Apoplexy, Splenic Fever, and Texas Fever in Cattle; Diseases Among Horses in San Diego County, 62.

Business Announcements.

(NEW THIS ISSUE.)

Agricultural Implements—Baker & Hamilton.
Agricultural Implements—Hawley Bros. Hardware Co.
Agricultural Implements—Frank Brothers.
Real Estate—Briggs, Ferguson & Co.
Shorthorn Cattle Sale—Killip & Co.
Pumps—Bean Spray Pump Co., Los Gatos.
Carbon Bisulphide—J. H. Wheeler.
Santa Rosa Nurseries—R. W. Bell.
Drugs—J. G. Steele & Co.
Horses—C. L. Taylor.
Lily Roots—R. Jordan, Napa, Cal.
Seeds—Ely & Co., Philadelphia, Pa.
Grape Cuttings—Eisen Vineyard Co.
Pacific Nurseries—F. Ludemann.
Rooted Janitors—A. Bradus, Sonoma, Cal.
Horses—H. Wilsey & Co., Petaluma, Cal.
Orange Trees—Fresno Nursery Co.
Oranges—Japanese Tree Importing Co.
Situation Wanted—G. S. Laurie, Mt. Hermon, Mass.

See Advertising Columns.

The Week

Bright and cold has been the weather over the greater area of California during the week. We say it is cold, and shiver and shudder most gracefully, and yet after the most biting night we go out early in the morning to find the puddles innocent of ice, and the only sign of the severe winter weather the beautiful hoar frost which one has to fight with the rising sun to get a sight of. But such is the usual California winter. It is cold enough to answer the purpose; we had just as soon have a hoar frost as three feet of snow.

It is beautiful weather for winter work, and a vast amount of it is being done. Every tree of fashionable sort will be put out. The general report is that the nurseries are clear of such stock. There has also been a vast amount of

plowing done for late cereal crops. No one complains of the winter of 1889 so far, except that the crop of immigrants does not meet expectations. But that is not worth repining about; so long as the industries of the State are progressing so rapidly, there is no question about population. It is better to have it increase gradually.

Changes in the State Board of Horticulture.

The telegraph as we go to press brings the information that a joint session of the Senate and Assembly Committees on Viniculture and Viticulture was held Tuesday to consider Senate bill No. 36 and Assembly bill No. 4, which relate to the reorganization of the State Board of Horticulture and to increasing its efficiency. Both measures, with some slight changes, were favorably agreed upon and will be so reported. The bill as thus approved was given its first reading in the Assembly Wednesday morning, and according to all appearances will meet with no obstacle in its course.

This being the fact, it is of interest to state in a general way what we believe to be the changes proposed. We learn these from a report made by a committee of the Board appointed at the Ohio meeting to formulate a report upon the matter. The report contained the following points:

1st, that the appropriation be increased to the extent of \$20,000 per year, \$5000 to be paid to the Treasurer quarterly, in advance.

2d, that the horticultural year commence April 1, 1889.

3d, that the office or position of Inspector of Fruit Pests be abolished.

4th, that the sum of \$400 per month be allowed for competent office service.

5th, that a sum not exceeding \$1000 be allowed for traveling expenses.

6th, that the expenditures necessary to be made in experiments in the different districts, to be determined by the board, on application of one or more of the fruit-growers in such districts, the board to select such person or persons to make such experiments, and to pay the expenses thereof.

7th, that all County Horticultural Boards be required by law to report quarterly to the State Board in writing, of the condition of the fruit interests in their several districts; what is being done to eradicate insect pests; also, as to disinfecting, as to quarantine against new insects; as to carrying out of all laws relative to the greatest good of the fruit interests.

We understand that the bill which has made such rapid progress at Sacramento does not include the item on appropriations, as that belongs to the general appropriation bill, but the other propositions we suppose are incorporated in the measure.

The first item of general interest in the new measure is the abolition of the office of State Inspector of Fruit Pests. The unsatisfactory character of this office has been a matter of some discussion, the difficulty lying in discharging the prescribed duties of the office without adequate arrangements therefor. The old law provided for local inspection, quarantine, etc., but left the compensation for such local work to the county boards of supervisors, who acted either spasmodically or not at all. Thus the State Inspector, who had the appointment and supervision of these local officers, found himself constantly and continually balked by local negligence or obstinacy because the men he appointed to do the work required by the law could get no compensation. There were other respects in which the State Inspector, no matter how earnest or diligent he might be, could not carry out the provisions of the law governing his office. To no one have these facts been more painfully apparent than to State Inspector W. G. Klee, and he has long contemplated resignation, and in fact did place his resignation in the hands of the Board some time ago—the resignation to be acted upon by the Board when such action would be thought to facilitate the changes in the manner of the work which are outlined above. He would have resigned at a certain date, but was informed by the Attorney-General that the office could not remain vacant and that it was his duty to hold the place until the law is changed. On such advice Mr. Klee handed in the form of resignation noted.

Mr. Klee's work has been so universally sat-

isfactory both to the board and to the public at large that his retirement will be regretted. He has worked most zealously, energetically and faithfully, and has done a vast amount of good by his visitations and advice and by his numerous timely publications. It is, of course, not his fault that the defects in the public machinery prevented his carrying out all the duties placed upon him. He retires by his own volition so that his incumbency of the office may not stand in the way of the changes contemplated. Mr. Klee's last work, which is just out from the office of the State printer, is an exceedingly practical and valuable pamphlet describing and prescribing remedies for some of the most prominent fruit pests—a work to which we shall allude further at another time.

Concerning the other provisions of the new law in extending the office work of the board and in providing for local experimentation under its auspices, we have not space to remark at this time.

We write of this matter hastily as we go to press, and will probably recur to it. Meantime we would like to hear from readers of the RURAL concerning the propositions involved.

Another Improvement for Our Readers.

By reference to our new rates of subscription, it will be seen that we now offer subscribers 15 months for \$3, when paid strictly in advance, which is ten per cent better terms than ever before presented. We have also made our rates so that any who could not afford to pay a whole season in advance can get the benefit of our emphatic inducements for advance payments on shorter periods.

Combining the subscribers of the *California Patron* and the *RURAL PRESS* into one larger list makes it possible for us to announce better terms to all who will pay in advance even for a single quarter.

It also renders it more agreeable for correspondents to labor for a larger circle of readers, affording a stimulus for them to give more labor to perfect their contributions for a large circle of readers.

THE LOCAL LAND OFFICE.—During the quarter ending Dec. 31, 1888, there were sold in the S. F. land district 55,389 acres of Government land, the receipts for which were \$102,795. There were recorded 155 homestead entries, the fees on which amounted to \$1470. There were also received fees on 23 timber-culture entries, \$220; commission on 3312 acres thus located, \$92; fees on 111 timber-land entries, \$1110; on 226 pre-emption filings, \$678; on 1 home declaration, \$3; on 11 coal-land declarations, \$33; on 1 mineral-land application, \$104. Fees from testimony reduced to writing amounted to \$700. The greatest amount of land located was in Mendocino county, and the greatest amount of agricultural lands were taken up in Monterey and San Luis Obispo counties.

SUGAR BEETS AT ANAHEIM.—A meeting was held at Anaheim last Saturday to learn whether farmers would guarantee the planting of an acreage of beets, sufficient to insure the building of a sugar factory. The *Chronicle's* dispatch says that representatives were present from Fallerton, Fairview, Placentia, Santa Ana and the entire valley, and great enthusiasm was manifested. Late experiments with sugar beets in that neighborhood have given results highly satisfactory; and it is said that 10,000 acres can be sowed to that crop as soon as definite arrangements are concluded. The movement has aroused the liveliest interest, and residents thereabout seem sanguine that a sugarie will be established within the year.

CORN IN CALIFORNIA.—An Eastern paper, announcing the departure of one of their citizens for California, where he is to take up his residence, says: "He will never see such a corn crop in the Golden State." Whereupon the *Citrograph* remarks: "As the crop was 8000 bushels on 150 acres, we think he will see a much larger one if he goes to the right places. We have frequently seen over 90 bushels to the acre raised on damp land, in the river bottoms and along the first mesas. And, as he sold his crop at 31 cents a bushel while the price here is about 55 cents, the difference becomes still more apparent. It foots up \$16.53 per acre in Illinois and \$49.50 per acre in California."

The Meeting of the Fruit Union.

As we go to press on Wednesday, the Annual Meeting of the California Fruit Union is in progress. President P. E. Platt of Sacramento and Secretary H. A. Fairbank, assisted by B. C. Brown of Santa Cruz, are guiding and recording the proceedings. The meeting opened promptly in the office of the State Board of Horticulture, but the room was soon seen to be too small, and an adjournment was had to the new headquarters of the Viticultural Commission at Platt's hall, where there is a good, spacious auditorium.

The meeting is a grand success in point of numbers, and this we now conceive to be a surety of wise action, as we argued last week. The reading of the annual report of Secretary Fairbank was the feature of the first session. It is given in full upon another page of this issue of the RURAL. It is, as the reader will see, a very interesting document, and was received with marked approval by the meeting. After the reading of the report, short addresses on the outlook for California fruit at the East were made by Messrs. Snow of Boston, Thomas of Chicago and others, and an adjournment was then taken until evening—too late to follow the proceedings further in this issue. Next week we will give our usual outline of the transactions.

Never a Better Time.

The favorable offer contained in our new list of subscription rates should be sufficient to induce all who possibly can to pay up for their paper. Few will find as profitable an investment elsewhere. We call especial attention to the inducement offered for subscribers in arrears to settle up during the initial months of the year and favor the publishers as well as themselves by securing the benefit of cash in advance terms.

THRASHING MAIZE.—The Springfield (Ohio) *Democrat* says that a Mr. Wilson lately rigged up his thrashing machine for thrashing corn, and thrashed over 100 bushels for one of his neighbors. This corn was put in excellent condition for market by the machine—in fact it was sold to a grain-buyer at Plattsburg and pronounced in good order. Mr. Wilson thinks that in a few years all the corn sold by farmers to shippers will be shelled and cleaned in this way. Those who witnessed the operation say that every part of the plant is utilized; the tassel, stalk, chuck, blade and cob are all made into one homogeneous mass of feed, which stood of all kinds of grain as much as the best timothy and clover hay.

"CALIFORNIA ON WHEELS" continues its triumphant march eastward, attracting throngs of admirers and proving a brilliant success. The gentlemen in charge report the utmost kindness from railroads, journalists and everybody. Visitors at Minneapolis numbered 15,000; and the later dispatches say that Wisconsin folk have fairly "gone wild" over the exhibit. The train met its first climatic obstacle between Milwaukee and Chippewa Falls, being snowed in at a little town where the snow lay 22 inches on the level and there were drifts of greater depth all about. Although the weather was very cold, the products had not suffered materially.

SORGHUM-SUGAR PATENT.—It is telegraphed from Washington that in the suit brought by the Attorney-General against Magnus Swanson for the cancellation of the patent for a method for the manufacture of sugar from sorghum cane, the demurrer of Swanson has been overruled and the case set for trial. Commissioner Colman thinks this action of the court settled the point of law as to the right of the Government to bring suit for cancellation of patents in cases where employees make discoveries while employed by the Government.

QUARANTINE GUARDIAN.—The supervisors of Santa Clara county have appointed H. A. Brainard official Quarantine Guardian, with salary at the rate of \$900 a year, the board reserving the right to discontinue the office at any time. Mr. Brainard is well informed on the horticulture of his county, and will, no doubt, make a good officer.

The Supervisors of Yolo county have revoked the \$5 bounty on coyote scalps.

Gov. R. W. Waterman.

Pertinent to the session of the State Legislature, now in progress at the State capital, we present the following biographical sketch of the Chief Executive of California:

Robert Whitney Waterman, seventeenth Governor of California, was born in Fairfield, Herkimer county, New York, Dec. 15, 1826.

His father was a merchant and died while Robert was quite young. Two years later the son removed to the West and located at Sycamore, Ill. Up to his twentieth year he was a clerk in a country store. In 1846 he engaged in business for himself as a general merchant in Belvidere, Ill. In 1847 he married Miss Jane Gardner of that place. They have had seven children, six of whom are living—two sons and four daughters. In 1849 Mr. Waterman was postmaster at Genoa, Ill., under President Taylor. In 1850 he went to California with the early tide of the gold-seeking immigration, and engaged in mining on the Feather river. Two years later he returned to Illinois, locating at Wilmington, and engaging in an extensive general mercantile business, at the same time giving considerable attention to agricultural pursuits.

In 1853 he published the *Wilmington Independent*. He was a delegate to the convention held at Bloomington, Ill., in 1854, that gave name to the Republican party, and was an early friend and associate of Abraham Lincoln, Lyman Trumbull, Richard Yates, David Davis, Owen Lovejoy and Richard J. Oglesby.

While Governor Waterman has never been known as a politician, he has always taken a lively and clear-sighted interest in the affairs of the nation. He did effective work during the campaign of Henry Clay, for whose character he has always had an ardent admiration; also for Gen. Taylor in 1848, and for Gen. Scott in 1852. He took a very active part in Fremont's campaign, and also in the senatorial contest between Lincoln and Douglas. He held the office of postmaster at Wilmington, Ill., under President Lincoln, and, notwithstanding numerous and important duties and interests at home, at the outbreak of the war he enlisted over 1000 men and also rendered valuable service as bearer of dispatches for Governor Yates, making several trips to the front in 1861-2-3-4-5, and afterward actively taking part in the reorganization of the hospital service at Cairo, Bird's Point and Mount City, Ill., and Fort Holt and Paducah, Ky.

In 1873 he returned to California and established his home at San Bernardino the following year. He had already acquired a practical and valuable mining experience, and soon started out as a prospector. After undergoing many hardships and meeting obstacles that would have discouraged most men, he was finally successful in discovering a series of silver mines in a locality which has since come to be known as the Calico Mining District, in San Bernardino county. He had always retained his liking for agricultural pursuits, and with the increased means thus placed at his command, he soon made his Hot Springs ranch, on the mountain-side near the city of San Bernardino, one of the most charming and beautiful homes in the State. This place, with its picturesque surroundings, is the admiration of thousands of visitors every year. During the Presidential campaign of 1884, he was one of the principal projectors and builders of a large "wigwag" or pavilion in San Bernardino, for the use of political

meetings. At the Republican State Convention held at Los Angeles, Aug. 27, 1886, Mr. Waterman was nominated for Lieutenant-Governor, and in the following November he was elected by a plurality of 2500 votes, the Democratic State ticket being successful, with but two other exceptions.

He came to the Chair of the Senate without previous experience as a presiding officer, but acquitted himself in a manner that commanded the respect of that body and of the people, and succeeded in winning over his severest critics of opposite political faith.

Upon the death of Governor Washington Bartlett, September 12, 1887, Lieutenant-Governor Waterman was called to the duties of Chief Executive, being inaugurated the following day in San Francisco. The oath of office was administered by Justice McFarland of the Supreme Court.

During recent years Governor Waterman

Mixed Farming.

A RURAL reporter made a flying trip from Petaluma recently, through the western portion of Sonoma county to Bloomfield, a small country village, about 14 miles from Petaluma, and situated in the center of a very fertile valley. This section has been devoted to raising grain, potatoes, and dairying, from an early date, and of late years its adaptability for deciduous fruits has induced planting of large orchards, especially of the apple, pear, and cherry.

The advantages this section possesses in soil and climate for mixed farming has changed somewhat the policy of former years, and a practice of uniting dairying and farming has been adopted by a majority of the residents of

pounds of butter to the cow during the last year. A flock of 50 sheep, young cattle, work horses and brood mares, Berkshire hogs, and improved breeds of poultry constitute the balance of his live-stock. In this system of farming there is a chance of utilizing the waste incidental to the rancher and of making the business profitable.

The Labor Question.

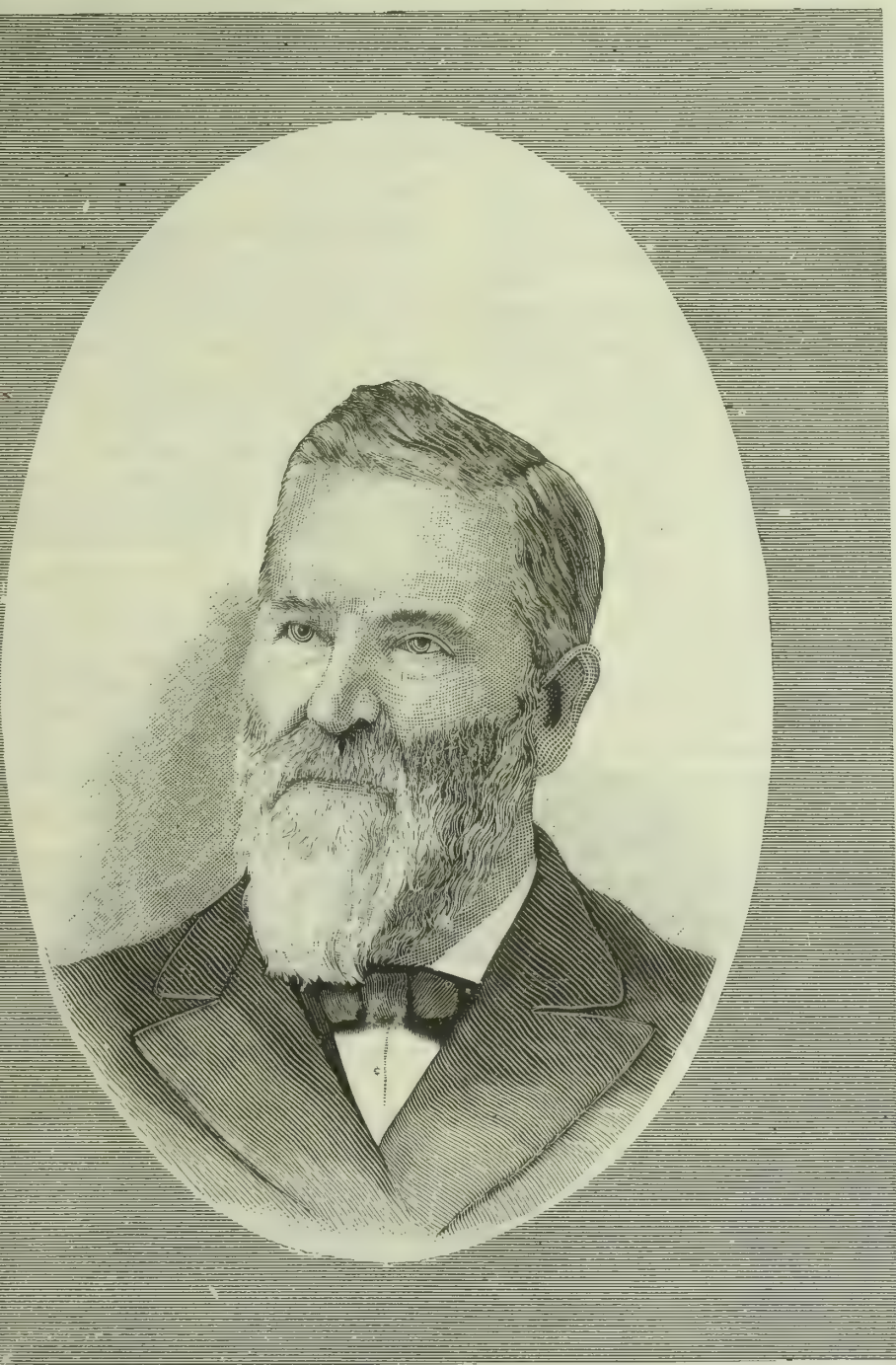
There is just now considerable discussion on the labor supply and needs of the State, but it seems to be fostered and promoted rather as a daily newspaper sensation than as a serious economic question. So far as getting up excitement and angry wrangle by spreading reports that there are organized efforts among producers for the overthrow of the Chinese Exclusion Act and the like, the effort of the press is altogether reprehensible. Of course people are obliged to employ Chinese in some cases or allow their crops to go to ruin, and they will continue to do so because of the strong instinct of self-preservation, but that these parties are planning and working for the old-time unrestricted Chinese immigration is false. So far as our acquaintance with these agricultural producers goes, they favor the employment of people of their own race and do, in fact, practice it just as far as possible, and are pleased to find that the available labor supply other than Chinese is continually increasing. But, of course, they still say that they are still to a certain extent dependent upon Chinese, which is merely the fact, but it is seldom that the view is held by producers that there is need of much greater supply of Chinamen than is now available. This fact was fully shown in the experience of the fruit-growers, which was fully set forth in the RURAL during the last fruit harvest. By the employment of families who came to the fruit regions from all directions, the growers were saved from using Chinamen except in the more difficult labor of picking and packing heavy baskets. By far the most of the lighter and pleasanter work of cutting and peeling fruit, spreading on trays, etc., was done by white persons of both sexes and all ages. This fact is set forth in the remarks of A. T. Hatch at a recent meeting of the State Board of Trade, which are reported as follows:

Mr. Hatch said that when women and children had been employed to pick fruit it had answered admirably. There are thousands of families in this State who could take a camping outfit and go on to the ranches during the fruit-picking season, and not only make money, but be benefited by the change of scene and climate. In Solano county it requires about 5000 persons to pick the fruit. Much of this is Chinese labor through necessity. Chinese labor has not and does not enhance in value. Chinamen are paid \$1 a day, and they are employed simply in consequence of the inability to procure efficient white labor. With reference to the quality of laborers obtained at employment offices, Mr. Hatch said the poorest quality was got from those offices.

The last remark of Mr. Hatch is but the experience of many others who have had men sent indiscriminately to them from the city. There are good men to be found at the employment offices, of course, and the institutions are often very useful to employer and to employed. But to order a lot of so many men from city haunts and trust to them the most delicate and systematic work of the fruit harvest is a very dangerous proceeding. The percentage one is likely to get of drunken and irresponsible outcasts is so great that a fruit-grower is hard pressed when he orders a large lot of men from the city.

If this is the case, even where the employer has an agent to select men in the form of the manager of the intelligence office, who, in most cases, we do not doubt, does as well as he can in most cases from the applicants before him, how much more dangerous it would be to fill a vacancy by such a means as one of the city newspapers seems to consider as a sovereign one, which seems to publish the need and then run cut-rate trains from the city to the farms. We are quite sure that few employers would take the risk of harboring such men as come to them in that way.

The whole subject is one of importance, it is true, and should be discussed and inquired into, but not from the standpoint of the sensational newspaper, or of the demagogue. If any of our readers can make useful suggestions as to the demand and supply for the coming season, we should be glad to hear from them.



ROBERT W. WATERMAN, GOVERNOR OF CALIFORNIA.

has engaged in numerous business enterprises in various parts of the State. He is the owner of the famous Stonewall gold mine in San Diego county, and has extensive cattle, dairy, fruit and grain ranch properties in Southern California. He is president of the San Diego, Cuyamaca & Eastern railway, and is prominently connected with many other public enterprises tending to the development of the State.

"MOUNT PLEASANT," near Chinese Camp, Tuolumne county—long the home of our worthy and kindly correspondent, the late John Taylor—has been sold to Mr. Hiniker of San Jose. The children—so one of them writes us from Vallejo—left the old place with deep regret, averse to having it pass into the hands of strangers; but with the loved father and mother both gone, its charm was all departed.

GROW MORE BUGHACH—The Fresno Republican thinks that the culture and curing of bughach for insect powder could be carried on with profit much more widely in this State.

this prosperous neighborhood. Mr. Wm. P. Hall, an old resident, has gained a very high reputation as a successful farmer, and we herewith give some data connected therewith. His farm contains 770 acres suitably divided in fields of from 40 to 80 acres. Continued rotation of crops and systematic manuring has kept his land fertile and as capable of large production as it was 30 years ago, when it was a virgin soil and only used for pasturing cattle. His system of rotation is to have a crop of wheat or barley follow a crop of beans or potatoes, and then a crop of oats or hay, after which it is used for pasture for five years. Mesquit grass seed is sown on the stubble, which will grow well, but is gradually crowded out by the native wiregrass. During the year 1888 his crop of wheat averaged over 45 bushels, of barley over 75 bushels, of hay over three tons, and potatoes over 80 bags (100 pounds) to the acre.

Mr. Hall's dairy of 80 cows (graded Short-horns and Holsteins) made an average of over 180

FRUIT MARKETING.

The Year's Work of the Fruit Union.

Annual Report of Secretary Fairbank.

To the President and Members of the California Fruit Union:—One year ago we had the pleasure of presenting the second annual report of the organization now assembled.

At that time, we said we could, with pleasure, point to the many advances made by the Union during the year, and now, as we glance backward over the busy season but barely finished, and at this time review the work accomplished, we can see that still further progress has been made in the last eight months in the effort to place our luscious fruits in the hands of the many on the other side of the mountains, while at the same time keeping in mind the fact that there is no small cost attending the raising, packing and shipping of our products, which must be returned to the producer together with a small percentage to compensate him for his capital invested and the risk of actual loss he incurs on every pound of green deciduous fruit which he intrusts to the tender mercies of the transportation companies. The most important step forward taken during the year has been the establishing of the auction method of selling our fruits in Chicago. The plan had met with such success in Boston and New York the preceding year that many favored the method for Chicago, but there were those who argued that this fact was no criterion to go by, as the auctioning of fruits in either of these first-mentioned markets was no innovation, so that it was not without opposition that the trial was made.

The result has borne out the most sanguine expectations. While it is conceded by the warmest adherents of the plan that, at private sale, a few (and the number is very limited) boxes will sell at a figure slightly in advance of the highest price realized at auction, it is also claimed, and the assertion seems to be substantiated by the actual returns, that the total sales of a car at auction will be fully as large and often exceed the gross results realized by the old method of selling; while the method has the still further advantage of allowing the shipper to know immediately on the arrival of his consignment what it is sold for, which enables him to decide whether to continue shipping, to dry or to sell to the local buyers, while at the same time the returns reach him within 11 days from date of shipment, thus obviating to a great degree the necessity of securing advances on the crop. So marked has been the success of these sales that we notice our Florida friends are following in our footsteps and are putting their oranges on the Chicago market through the medium of the auction-room.

Stock in the Union.

The increase of stock issued during the year has been very small, only \$278.75 having been received from delinquents and from new issue, representing a total number of shares subscribed and added to our list for the year of 335, so that at present our organization is represented in 27 counties of the State by 12,658 shares held by 499 growers and shippers.

There is yet considerable due on the originally subscribed stock, the amount reaching nearly \$1600 and representing some 3200 shares.

This in all probability will never be taken up, and it would seem that some action should be taken to cut loose from this dead weight, as it does neither the organization nor the various delinquents any good and serves only as a stumbling-block in the way of getting together a quorum of the stock at any of our meetings.

At the outset it was deemed best to allow all dilatory subscribers ample time, but now that three years of active business operations have been concluded, it would appear that none would have cause to complain were their names in some way dropped from our list of membership.

It might not be out of place to mention in this connection that our attention has been called a number of times by various members to the advisability of some change being made in Subdivision 5 of Section 5 in our by-laws, a clause which reads that—

Subdivision 5—When any stockholder shall cease to be qualified as such, he may deliver up to the secretary his certificate of stock, which shall thereupon be canceled and he shall be repaid by the corporation the amount he shall have paid thereon.

The reasons given for the necessity of making some change in this particular are briefly stated as follows:

Suppose that one of our growers, who should take, say, ten shares of stock, and so entitle himself to all the privileges of the Union in the matter of reduced freight rates and systematic distribution, and should in many other ways receive benefits vastly out of proportion to the small amount of capital invested, upon which he has also received six per cent annual interest in the way of dividends, should, after two or three years of fellowship, sell his property, he can, under this section, surrender his stock, and receive in return the small amount he originally paid into the treasury, and for which he has already received an equivalent many times over.

From a legal standpoint it may be necessary to continue this clause in operation, otherwise

it would appear that some modifying action would be necessary.

Receipts and Expenditures.

The affairs of this Union have been conducted as economically as possible; in fact, in our humble opinion, a small amount expended during the busiest portion of the year, at least, for more skilled help, while not absolutely necessary, would doubtless have been appreciated by those who were, through the organization, consigning their products. The difficulty which was, and will continue to be experienced, being to secure at that particular period, and for so short an engagement, adequate assistance.

The following balance gives the exact status of the condition of the Union on the 10th of January, 1889:

TRIAL BALANCE.	
\$ 156 07	Expense, Incidental.....
208 93	Stationery and Printing.....
2,720 36	Telegraphing.....
5 50	Advertising.....
20 75	Coal.....
95 12	Stock..... \$14,264 26
	Telephone.....
758 61	Commission Account..... 18,956 25
9,439 78	Freight and Loading Due.....
	Profit and Loss.....
	Dividend Account No. 1..... 438 92
	Shippers' Rebate..... 306 42
6,532 65	Reserve Fund..... 142 96
266 00	Salary.....
129 66	Office Rent.....
11,523 09	Postage.....
17 60	Bank.....
1,305 20	Exchange.....
262 91	Traveling Expenses.....
616 60	Cash.....
	Office Fixtures.....
\$34,025 80	
	\$34,025 80

From the above balance it will be seen that with the single exception of the telegraphing account the expenses of the preceding year have been very materially reduced. The explanation of the heavy increase, amounting to nearly \$1500, in this account is that where the auction method of selling is pursued the entire invoice, even to the minutest detail, must necessarily be telegraphed, in order to allow the auctioneers an opportunity to issue catalogues in advance of the arrival of the car, a proceeding which, of course, greatly increases the cost over the old manner of advising.

It will be noticed that our total receipts from all sources have been \$19,189, and the total disbursements \$12,195 02, which, with the funds in the treasury at the beginning of the season, leaves on hand \$262 91 cash and \$11,523 09 deposited in the treasury at Sacramento.

There is still due to stockholders on dividend No. 1 \$438 92, and on the rebate allowed shippers \$306 42.

Shipments for the Year.

The shipping for the season has, in the aggregate, been quite successful. At the same time the fact has been very forcibly brought to the notice of all who have shipped, that when they have in the East a full crop, as was the case the past season, we cannot hope to compete with them and pay the rates of freight we are now charged by the transportation companies. For instance, they can raise and sell their domestic peaches and grapes at a profit of 1½ cents per pound, as was largely done this year, while we, at the lowest rate given us on this class of fruit, must needs pay one half a cent per pound more than this for freight alone; while to pay all necessary expenses incurred in growing and shipping to Eastern markets and make the business even fairly prosperous our fruit must sell for at least five cents per pound in a wholesale way.

The above, with other causes which are explained further on, served to limit the number of cars and the length of the shipping season as well. Our first car this year left Winters, May 18th, the same date as the first car of the preceding year, but our final car was forwarded from Wrights Nov. 14th, ten days earlier than last season.

The following table shows the districts furnishing shipments and the distribution of the same:

SHIPMENTS OF GREEN DECIDUOUS FRUITS FOR THE SEASON OF 1888 BY THE CALIFORNIA FRUIT UNION.

	Omaha	St. Paul	St. Louis	Chicago	Minneapolis	St. Paul	Winnipeg	Portland	Seattle	Totals
Wright's			1							10
Mayhew				12	2	3				17
Natoma				29						29
Colfax				8	2	12				22
Sau L renzo		1	4	1	4	16	1	5	33	61
Cordelia				6	1	2				11
Portia				6	1	1				8
Santa Rosa				6	1	1				8
Marysville		1	4							5
Fresno						15				15
Vacaville		2	1	2	7	11	1	125	1	133
San Jose		23	9	14	19			1	12	66
Sacramento		14	10	3	12	4		176	32	339
Winters						25				25
Woodland						1				1
Newcastle						20		2		22
Portland, Or.						3				3
Portland						5		4	1	10
Davisville						18		3	24	42
Totals	45	27	23	77	24	28	490	3	56	850

It might be well to say in explanation that the agents at St. Paul and Minneapolis are in hearty accord and work together, so that it matters little to which place a car may be billed, as on its arrival both cities are supplied from the same car. The railroad facilities being somewhat better for sending the car first to Minneapolis and then, after a portion has been removed, forwarding it to St. Paul, it

transpires, more cars were billed to the former place. As a matter of fact nearly the same amount of fruit has been sold in each city.

Comparing this table with the one prepared for the season of 1887, we see that the gain of 90 cars has been made chiefly in the shipments from new points, such as Colfax, Santa Rosa, Cordelia and Mayhew, with a heavy increase from Sacramento; while the older shipping places, such as Vacaville, San Jose, Natoma, Wrights and Davisville, fall way below their last year's record.

From a careful compilation of some 9000 duplicate account sales, as rendered the various shippers, we learn that the total number of boxes shipped was 282,040; crates, 253,323; pounds, 12,602,180.

Where the Money Goes.

The gross sales for these amounts to \$773,117 42, from which was deducted \$345,156 28 for freight, \$2430 02 for cartage and \$77,298 06 for commission, giving a total gross charge of \$24,884 36, which would leave \$348 233 06 to be returned the shippers, or about 2 92 cents per pound. These figures, of course, do not show the actual net returns to the shipper, as the cost of picking, packing, boxes, etc., does not enter into the account sales as rendered. The amount expended in defraying these expenses is variously estimated, but the one which seemingly comes nearest the medium figure is 85 cents per 100 pounds. With this as a basis, we find that from the figures given above we will have to deduct for the necessary expenses incident to shipping \$107,118 53, leaving \$241,114 53 as the actual money returns to the grower, which gives an average of 1 91 cents per pound on shipments of all varieties of fruits. Thus it will be readily seen that while the growers are receiving \$241,114 53, the commission men are the richer by \$77,298 06, while the transportation companies receive the lion's share and pocket \$345,156 28, or nearly one dollar and a half for every one which finds its way into the producer's purse.

Notes on Different Fruits.

The car-load cherry shipments were very few in numbers, a fact due largely to the late rains which rendered quite a portion of the Alameda county crop unfit for shipping and so reduced the supply.

Apriots were sent in large quantities and did much better than last year.

Bartlett pears, during a portion of the season, sold unusually low, a fact which was explained by our agents as being due to the fruit arriving extremely green, so that after the retail stores and stands were filled up with the pears which they had to hold to ripen before they could realize from them, prices necessarily dropped, as only the larger buyers felt inclined or could afford to effect further purchases of the fruit which daily continued to arrive.

The later shipments all paid remarkably well and netted the shippers fancy prices.

Peaches, during the early part of the season, or up to about the 10th of August, sold remarkably well, as they carried in first-class condition; but the later shipments of this variety of fruit coming into competition with the home-grown article, barely brought freight, proving conclusively that for Eastern shipment those varieties ripening before the date mentioned are vastly superior, being even preferable to the very late varieties, although these, to a limited extent, will command good prices.

In all markets even medium-sized freestones are very much preferred to even a very large, highly colored clingstone.

Prunes and plums for some reason did not sell as well as last season. Of the varieties shipped, the Tragedy and Japan clearly lead in prices obtained.

Grapes, until nearly the close of the season, sold remarkably low, a result brought about entirely by the poor condition of the fruit on arrival. On every car and from all quarters came back the report: "Car arrived, with grapes badly started," etc. In fact, the returns were so discouraging that many either dried their fruit or allowed it to remain on the vines. So poor a season for grape shipments has not been experienced for a dozen years—a fact largely attributable to the unusually severe hot weather which we had during the months of July and August, a heat which literally burned the grapes up as they hung on the vines.

The uncertainty of condition on arrival on the one hand, and the certainty of a high freight charge on the other, served to reduce our shipments very materially, as fully 100 more cars would have been forwarded had the returns justified the venture.

Fall and winter pears, notwithstanding the fact that our crop was a light one, have not brought their usual prices, and for a time some thought this was due to the method of selling, but as the season advanced the cause was very obvious, as those growing the product found the fruit was not keeping even here, although not subjected to the trying experience of a change of climate. The facts were, our two comparatively dry winters had rendered the worms unusually aggressive and caused the pears to melt right down, thus necessitating the immediate placing on the market of those varieties which are generally laid away for the late fall and winter trade.

A new departure was inaugurated during the last months of shipping, being that of sending late pears through to the extreme East. The results on the four or five cars so sent were, to a certain extent, gratifying, as showing the

possibilities of opening up a market there for this fall and winter stock.

Prices for Different Fruits.

A table giving the net prices realized per pound in the various cities has been prepared and is appended. It shows the net money per pound in cents and fractions of a cent returned to the grower by the firm shipped to in the East, but does not of course include the cost of cultivation, preparing for market or package.

	Omaha	St. Paul	St. Louis	Chicago	New Orleans	Boston	New York
Plums & prunes	2.5	2.3	2.0	2.6	2.6	3.5	3.3
Cherries	11.0	7.7	3.2	8.0	6.1	4.3	2.0
Peaches	2.4	2.5	0.5	2.2	2.6	2.8	1.0
Pears	2.8	2.3	2.6	2.8	3.0	2.7	2.2
Nectarines	1.9			2.0	1.9	3.0	
Grapes	1.8	1.4	2.0	1.6	2.2	2.1	1.9
Quinces	1.8	2.8	1.9	0.8	1.8	1.0	1.1
Apriots	3.3	2.7	3.9	2.0	3.8		1.9

Facilities for Shipping.

The time made by the special trains this season was very satisfactory, there being fewer late arrivals even than when sent by passenger train, but the time made by the cars receiving freight service was equally as unsatisfactory. Where in former years cars reached their destination in from eight to ten days, this season a run of ten days was the exception, and the time was more often from 15 to 23 days, a delay which proved ruinous in nearly every instance.

The question of suitable cars has also assumed very considerable proportions. During the entire shipping season the utmost difficulty was experienced in securing cars to load. While trains were being run, cars provided with any sort of a coupling could be sent without difficulty to either Omaha or Chicago, as the trains ran through solid to both cities; but, even during the dispatching of trains, the same difficulty was experienced in securing cars for points divergent from Omaha or for the cities east of Chicago, while in the passenger-train shipments of both the early and late season the most vexatious delays were of daily occurrence.

We are glad to say that finally, after repeated and continuous effort, the loading facilities at Sacramento, where the greater portion of the active work of the executives is done, have been in a measure improved, and another season (possibly at a slightly increased cost in the item of drayage) small shipments can be handled with much greater dispatch than in previous years.

Difficulties to get East of Chicago.

The unfavorable conditions surrounding the securing of the low rate of freight to New York and Boston, made it extremely difficult to supply those markets as we desired, and it was often only by the most determined effort that we were enabled to arrange for the five cars east of Chicago to arrive on the days when they desired them, and at the same time keep all the other agents supplied, as the great secret in securing remunerative returns from all markets lies in giving them a continuous supply, not overdoing them one day, then neglecting them the next three.

To the uninitiated this may seem perfectly easy to accomplish and a matter which can be readily arranged on paper by formulating a schedule, and possibly it might, were all the cars shipped the property of a single firm or individual.

But as it is, with many of the cars being loaded by from 1 to 25 parties, each having their various preferences and desires which cannot be entirely ignored, while at the same time there enters into the difficulty two other factors equally as important, being the well-established facts that certain markets will pay fancy prices for some varieties of fruits, while in some other way the same variety will barely bring freight and certain kinds will carry to some points and pay well, while if sent to farther markets the shipment might prove a total loss, and at the same time one must always bear in mind that the locality from which the fruit comes which fills the car has also a great deal to do in determining the destination, as a variety of a kind of fruit from one section of the State will carry well to Boston, while the same variety of the same kind of fruit from some other locality barely carries, in good condition, to Omaha, the matter is one which gives the one in charge no end of cause for worry and sleeplessness, and seems also prolific of cause for dissatisfaction among our consignors. There are doubtless many who consider the office of manager a sinecure. To all such we would say that we are confident we may, in the name of the manager for the coming year, whoever he may be, extend to you a hearty invitation to make a visit to the office of the Union in Sacramento any time during the busy season and there examine into the daily routine of work which occupies the time of the several officers. I am certain that then you would have a much better idea of the possibilities of the office in developing tact and patience and also of the amount of actual hard work done than you have now.

Points for the Future.

Finally we would say that the possibilities of good to the members, through co-operation with the plans of the Union, are but dimly realized by the many, and in fact they are as yet but partially developed.

In the simple matter of selection of agents, in the various cities, great care has been taken

to select the best houses, and being now in a position to be very exacting as to requirements, we are satisfied that in the various places where the Union has appointments, no better firms exist than those representing our interests. These agents are all under heavy bond, and there is no possibility of a loss to any of our consignors.

We can assure you the commission charged the coming year will be no higher than that charged by any reliable organization or party which essays to handle your product for you, and the advantage you gain while dealing with responsible parties is greatly increased by the fact that should the commission, whatever it may be that is charged, prove more than sufficient to defray economical running expenses, the surplus, instead of swelling the bank account of the party or organization handling your product, is returned to you, in the form of a rebate, our organization thus being pre-eminently a co-operative one.

Such being the facts, we fail to see the wisdom displayed by some in shipping indiscriminately, as to cities and consignees, on the advice of any one who may come along and solicit consignments.

As a matter of fact, carloads of fine fruit the past season were sent to small towns, which, at the best, could not dispose of any such quantity within a week, the limit of the life of the fruit being not over three days, while at other times carloads were consigned to parties with no trade and to markets already full, simply on the strength of a handful of telegrams, displayed, in many instances, from wholly irresponsible parties, quoting fancy prices for various fruits, but whose actual returns, made after perhaps a couple of shipments, had been entrusted to them on the strength of such representations, did not come within 75 per cent of the prices even at which they wired the first car was selling on arrival.

Taking all these things into consideration, we would strongly urge that whenever any may think they have cause for grievance, they state it openly, and whether the fault lies with themselves or some one else, have it thoroughly and satisfactorily settled, and, if possible, remedied, then, laying aside any ill-feeling, which, for any cause, may have been engendered, all with one accord work together for the advancement of our organization, which has already, from so small a beginning, despite strenuous antagonistic efforts, given promise of being productive of an indefinite amount of good to all fruit-producers, whether they may be working with us or otherwise, and by an earnest, untiring, combined effort, make the Union one of the strongest organizations of our well-favored State. Respectfully,

H. A. FAIRBANK, S. C'y.

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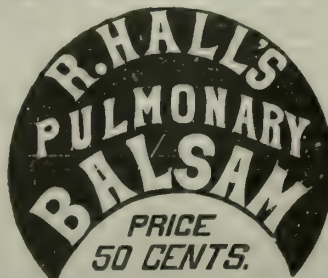
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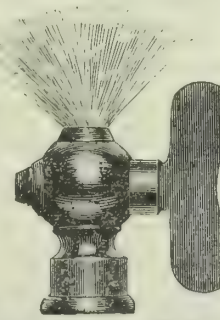
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AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

LIVERMORE LOCALS.—*Herald*, Jan. 12: Many of our farmers were bothered last month to find good sowing weather—it rained just often enough to prevent good work. Now, however, the soil works wonderfully well, and seed sowers are running in every direction. Pruning is progressing rapidly in our vineyards. Tall columns of smoke from the burning brush rise high above the valley. James Concannon's carload of grape cuttings, for Mexico, will be shipped in a few days. They are being packed in mass in large boxes, at the planing-mill. The shade trees in the Northern and Southern Additions are being trimmed this week, and the missing places filled. The loss is very small—not to exceed three per cent of the locusts. Of the alanthus, the percentage is much larger. An alanthus tree on Chestnut street is sending forth its leaves and making a vigorous growth. It is somewhat out of season, but the weather seems to offer no obstacle. Dr. Forbes purchased a chicken from Geo. Lindy the other day, and while preparing the fowl for the oven, found lodged in its gizzard a ten-cent piece, a piece of a watch chain, a copper rivet, a gun cap, and sundry other articles.

Amador.

AMADOR ORANGES.—*Jackson Ledger*, Jan. 5: John Northup left at our office last Saturday a box of this season's oranges, the product of his orchard near Lancha Plana. They were fine-looking as well as fine-tasting. The tree from which they were gathered is 17 years old and has borne from 700 to 1000 oranges for several years past. This year it yielded about 1000, and most of these he brought to Jackson and sold to the dealers in a few minutes. The tree is a seedling, and decidedly the most thrifty of its kind in his orchard. He has three other orange trees in bearing, but this one has done better than the rest, probably from the fact that it is better located as regards soil and has received more attention. It has been liberally irrigated in the dry season. The degree of cold in that section does not affect it in the least.

FINE POTATOES.—We received last Saturday a sample of new potatoes from John Daveggio of Plymouth, large in size and excellent for cooking. The seed was planted Sept. 20th, so that in a trifle over three months the ripe product was gathered. There has been no frost of sufficient severity to arrest their growth, and the vegetable grew to maturity in an astonishingly short space of time, even in mid-winter.

MOUNTAIN APPLES.—We were presented this week with a box of mountain apples of the Rhode Island variety, by F. M. Whitmore, from his orchard in the mountains. They are among the finest apples we have seen, and in flavor they fully sustain the reputation of apples grown in the middle foothills of this county. The apple-growing business of that region would soon develop into a flourishing industry if the transportation difficulty could be overcome. As it is, the hauling them over the rough roads we have is a serious if not insurmountable obstacle to getting to the outside markets in prime condition.

Butte.

LARGE PLANTINGS.—*Oroville Mercury*, Jan. 11: John C. Gray's men at Mt. Ida Olive Farm, five miles southeast of Oroville, finished setting his 50 acres of White Adriatic figs today. This grove is adjoining his 65 acre olive grove. C. J. Nickerson's men, working under the direction of Mr. Jackson, are putting in a 30-acre grove of almonds on the Nickerson tract just east of town.

Contra Costa.

CANNING PROJECT.—*Item*, Jan. 9: The prospect of Martinez having a cannery in the near future seems bright just now. Steps for the establishment of such a business have already been taken. The prime movers in this enterprise are Dr. John Strentzel, Joseph Black and J. H. Borland, all gentlemen of intelligence and energy. The company is to be incorporated as the "Martinez Canning Co." with a stock of \$50,000, in 5000 shares of \$10 each. Fish, fruit and vegetables are to be canned in this establishment and its capacity to be 15,000 cans a day. The sum of \$10,000 will be required for the necessary machinery and a further sum of \$10,000 as a working capital. This amount, representing 2000 shares, is to be subscribed by the 15th day of February. It is designed to have the cannery ready for operation by the 1st day of April next.

Fresno.

FRESNO ORANGES.—*Expositor*, Jan. 7: There are in Dr. Leach's yard at least eight bearing seedling orange trees. The trees are very thrifty, the trunks and leaves being free from insect pest. They are all loaded with golden spheres. The fruit, both in size and flavor, is equal to that raised in San Bernardino county, while the skin of the oranges is thinner.

AUSTRALIAN FERNS.—Dr. Leach, president of the Fresno Fair Ground Association, is about to introduce the Australian fern. Of all the evergreens in Southern California this tree is the most beautiful. It has a leaf which resembles the fern, only it is much coarser. The

tree is a quick grower, while its symmetry is perfect. The trunk is very straight, while its boughs taper from the first branch to the last. As an ornamental tree it hasn't an equal. The doctor will set out 100 at the fair grounds.

Humboldt.

FROM THE RANGES.—*Eureka Times*, Jan. 10: L. O. Beckwith, of Mandala, arrived in this city yesterday, and reports the stock in his section of the country in excellent condition. He says there have been no frosts and that leaves are still to be seen on the raspberry bushes; that while the grass on the cattle-ranges is better than on the sheep-ranges, owing to the sheep eating it down very close, still sheep are improving in condition.

Inyo.

CLEVELAND BAYS.—*Bishop Creek Register*, Jan. 3: Wm. Rowan returns this week with two Cleveland Bay stallions, which he purchased in Los Angeles at \$2500 each. Mr. Rowan was practically the pioneer in the line of blooded horse raising in the valley, by systematically introducing the Norman stock. His late purchases are another style of horse-flesh, and we believe the first of their breed brought to Inyo. This completes the necessary quota; there is stock here now to fulfill almost every possible requirement—the Norfolk, Hambletonian, Cleveland Bay, Clydesdale and Norman. This list, and the increased showing annually made in the line of improved horse-flesh, shows the energy with which our stock-raisers have grasped the situation since the mustang days of only a few years ago.

RAISINS.—Lone Pine seems to be the leading locality when it comes to fine grapes. A few days since a sample box of raisins came up from Johnny Stewart of that place, which he calls "sun dried grapes," but which, just the same, are equal to any foreign raisin ever coming within our observation.

Lassen.

PROLIFIC PORKER.—*Susanville Advocate*, Jan. 10: John T. Mastin of this place has a profitable sow that has, within the last 13 months, given birth to 32 pigs. The value of the first litter (12) at this date is \$160; of the second (11), \$100; of the third (9), \$18; value of the mother, \$45; total present value of all, \$323. They are ready for sale at these figures.

Los Angeles.

POMONA POINTS.—*Progress*: The largest individual freight bill paid in Pomona in many a day is that of \$980 which Rev. C. F. Loop lately paid on 500 olive trees of the choicest varieties, that he bought in Southern France last summer. It is estimated that over 40,000 strawberry plants have been set out in Pomona thus far this season, and as many more will soon be set out here. There is always a good market for strawberries in this region. The largest tax-payer in this locality is Richard Gird, of the great Chino ranch. His taxes this year have amounted to over \$8700.

Modoc.

CATTLE.—*Altura Independent*, Jan. 10: The Dorris meadow south of town is literally covered with cattle which have been gathered in within the past two weeks. Almost daily one can see the vaqueros passing along and driving cattle to winter quarters. As a general thing the animals are in good condition. Mr. G. E. Williams of South Fork was in town the first of the week. He says his boys have been gathering up cattle for the past four weeks, and are feeding as fast as they can get them in. A great many of his cattle are still out on the range, and some of the old cows are getting quite thin.

Napa.

FROM TWENTY HENS.—*Calistogan*, Jan. 9: Last year Mrs. W. Ebeling kept 20 hens—Brown Leghorn and Plymouth Rock strain—from which she derived the following income, aside from the eggs required for use in the family: For broilers, \$20; for eggs sold, \$15; total \$35. There is money in keeping fowls if a person only understands how to keep and feed them. At the above rate, Mrs. Ebeling would derive a handsome income annually by keeping 500 fowls. But where so many are kept together the result generally is not correspondingly large.

Placer.

A ROYAL CLUSTER.—*Auburn Herald*, Jan. 12: While in Newcastle the other day we saw a cluster of oranges that was well worth a day's travel to see. The cluster consisted of 29 oranges and occupied about 15 inches of space along the branch. There were originally 31, but two of them had dropped off. They grew in the grove of J. W. Smyth, of Horseshoe Bar, and were large, of a uniform size, perfectly smooth, and free from spot or blemish. The golden fruit of Hesperides could not have excelled them! They can now be seen at the Placer exhibition in San Francisco.

San Diego.

A VAST BARLEY-FIELD.—*San Diego Sun*, Jan. 7: A rancher just in from the neighborhood of the great Warner ranch, which belongs to ex-Gov. Downey, said this morning that seed-barley was being hauled from Temecula to sow 5000 acres of the Governor's property. A big force of men with gang plows was to be set to work this week to push the work of sowing. This is a portion of the territory through which the new Cuyamaca road passes, and with the speedy completion of this much-needed outlet to a market, the rancher said, large ad-

ditional tracts would be planted to grain and set out in fruit trees by the farmers.

San Bernardino.

RETURNS FROM RAISINS.—*Courier*: The new Cook & Langley cannery on the Barton ranch has packed and shipped 45 carloads of raisins this season, and for every carload of raisins the growers received an average of \$1000, making \$45,000 paid out to the ranchers in the valley for the one item of raisins. This, too, is the company's first season. Besides this, there was a large crop of deciduous fruit, for which the ranchers received good prices.

San Luis Obispo.

BUSY WORKERS.—*Paso Cor. Tribune*: San Jose valley is flourishing. One can see Stockton "gangs" and large teams in every direction tilling the soil. Men are at work as if they meant business. Some are plowing, some are sowing, some are harrowing, some are making garden, some are building—all are alive and working with determination. The valley will all be put to crops this year. Feed is already several inches high all through the valley and over the mountains. Stock is looking finely, we have the best of soil, a splendid climate, and one of the healthiest places in the State. With plenty of good water and wood, it is a most desirable place to live in.

Santa Clara.

THE FEBRUARY FAIR.—*San Jose Mercury*, Jan. 12: A meeting of the Board of Directors of the Horticultural Hall Association was held Saturday, with Directors Cyrus Jones (chairman), Wm. L. Manly, A. B. Hunter, G. W. Tarleton, S. B. Saunders, M. S. Bowditch and Mrs. Newhall present. Mr. Hunter acted as secretary. The proposition to hold a winter fair was broached. Mr. Jones stated that many persons had spoken to him about the matter. The question was put and it was decided in favor of a fair by a vote of 4 to 3. On being shown that the moon was full Feb. 15th, it was decided the fair should be the week beginning Feb. 11th. Mrs. Newhall, A. B. Hunter and S. B. Saunders were appointed a Committee on Decoration. Messrs. Tarleton and Bowditch were appointed to visit the western side of the valley and secure a display of oranges. During a general conversation on the subject, it was brought out that the prospects are favorable for securing a showing of new potatoes, also of tomatoes and other vegetables. The main stress will be laid on citrus fruits, however, and it is desired to have as many oranges as can be secured within the valley. It was suggested by Mrs. Newhall that special attention should be paid to decorating the hall properly and completely, more so if possible than it has been before; also that the floral exhibit should be made complete, and Santa Cruz be invited to co-operate in this connection. The president was requested to report to the Board of Trade that they had decided to hold a fair and request the Board to co-operate. It was resolved to invite the people generally to co-operate in holding the fair.

A NEW YEAR'S FIRE.—*San Jose Herald*, Jan. 2: At 3 A. M. yesterday, at Mountain View, A. Trixon's barn was discovered to be on fire. The flames soon communicated with a new barn recently built by J. W. Laner, and in a short time both buildings were in ashes. There were several horses in Mr. Laner's barn and they were saved. L. Leibe, the harness-maker, had a valuable horse in Mr. Trixon's barn. When the fire was discovered the door was opened, but the horse was not there. Many believe that he was stolen. Both barns were partially insured. It is believed that the fire was of incendiary origin. Mr. Laner lost several tons of hay, a cart and agricultural implements and other valuables.

Sonoma.

BIG PIG.—*Sonoma Index Tribune*, Jan. 5: L. Modini of this place has a 13 months-old hog of the Berkshire breed that measures from tip of snout to end of tail 8 feet 4 inches. In height he is 3 feet 3 inches at the shoulders and in girth 6 feet 4 inches. The exact weight of his hogship is not known, as he has never been weighed.

THRIVING VINE.—*Santa Rosa Democrat*, Jan. 12: J. W. Treadwell, of the Falconhurst vineyard, calls attention to a yearling vine, of Crab's Black Burgundy variety, which has put forth a growth of 18 feet in one year. He says some of the older vines in his vineyard have attained to a growth of 12 and 14 feet in a year, but in vines so youthful a growth of 18 feet is remarkable.

A HIGH PRICED STALLION.—It is said that the recent offer made by a Kentucky gentleman for Anteeo was no less a sum than \$20,000. The association will not sell the famous horse at those figures. It wants \$25,000, on which amount the income from his services as a breeding stallion has paid good interest. The association has concluded to send him to Kentucky, where he will remain one season.

Tulare.

CHEESE FACTORY.—*Visalia Times*: J. C. Coho, lately of Gilroy, has commenced the manufacture of cheese on the ranch of D. C. Hayward, seven miles west of Traver. Several samples have been disposed of in this city, and those who have tasted the cheese pronounce it superior to anything found in this market for years. It is made from pure cream, without any dilution whatever of skimmed milk or

other ingredients. Mr. Coho expects to manufacture enough to supply the Tulare county market.

DISTRICT LAND OFFICE.—Register Miller of the U. S. Land Office in this city has kindly furnished the *Times* with the following statement relating to the business transacted in his office for the year 1888, viz.: Number of homesteads filed, 883; timber cultures, 324; pre-emptions, 1538; final homesteads lived out, 124. Entries—commuted homesteads and pre-emptions paid out and purchases at cash sales, 703. Proofs have been made during the year representing title to 132,320 acres of land. Total cash receipts during the year, \$294,972.62, which exceeds the amount of cash received in any previous year since the office was established. The receipts for the last quarter amounted to \$98,972.22.

HARROWING ALFALFA FIELDS.—Several progressive farmers of this county have tried the experiment of harrowing their alfalfa pastures, with the object of killing out the objectionable fox tail grass, and also improving the growth of the feed. The plan has been a successful one, and those who have tried it are earnest in their advocacy of this method of cultivating alfalfa, especially in old pastures. This is the season of the year for such experiments, as a harrow run through alfalfa grounds to-day will effectually eradicate all obnoxious weeds and can in no wise affect the alfalfa.

NEVADA.

WILD HORSES IN THE MOUNTAINS.—*Eureka Sentinel*, Jan. 5: Not many people know that there are wild horses in the mountains of Nevada. Such is nevertheless the case, and at least three bands have been seen in this county along the high range near the Lander line. There is one group of seven or eight animals that is seen every summer on the very top of Shicknasty mountain, southwest of Cortez. An old gray stallion seems to be the king pin of this herd; nothing but mares are ever seen in his company, and he is said to guard them with fatherly care. Last summer some of the cowboys gave chase to the band for two or three days. When hotly pursued, the old stallion was seen to drop to the rear and vigorously bite the others to make them accelerate their speed. He allows none to escape, and if a "tame" animal falls in his way, it is taken along also. In a remarkably short time a domestic animal becomes as wild as the rest. Several are known to have been lost in this way. These wild horses look large and fine when climbing the precipitous mountains. They go anywhere a mountain sheep will go. When caught they are found to be not much larger than Peter Breen's greyhound. They have interbred and bred down until there is nothing left of them either in size or endurance.

CORN.—*Reno Journal*, Jan. 12: The impression seems to prevail among those who are not familiar with the producing power of Nevada soil that corn will not do well here. This is a mistaken idea. On the Keyser & Elrod ranch on the head of the Carson river at an altitude of nearly 6000 feet above the sea level, some fine corn was raised last season as ever matured in the Mississippi valley. Last season they only planted three acres, but the yield was very heavy and the kernels plump and the ear large.

OREGON.

PRUNES IN SOUTHERN OREGON.—*Roseburg Review*: Myrtle Creek and the surrounding country is taking the lead of the county in prune culture and the amount produced per acre is marvelous. There have been shipped from this place this year about 80,000 pounds of dried prunes, and the proprietors of these orchards received a net income of from \$150 to \$300 per acre. The prune industry in Douglas county is yet in its infancy, and the people of Myrtle Creek have taken a step in advance of other sections in leading out in this line.

EXPERIMENTS IN GRASS GROWING.—*Fossil Cor. Oregonian*: I will report experiments in growing some perennial grasses on bunchgrass land. Alfalfa and Johnson grass did well on deep sandy land, and sainfoin on both sandy and ordinary bunchgrass land, all without irrigation. I tried English and Italian rye grass, fall meadow oat grass and fall fescue, all of which lived through our unusually dry summer, but did not go to seed. However, I wait anxiously to see what they will do next year when they will have roots to begin growth from. I think sainfoin will pay the Eastern Oregon farmer for summer and fall pasture, as it was green and growing when the bunchgrass was dry. One quality of our bunchgrass is too often overlooked; that is, it cures on the ground like hay and is not injured by frost.

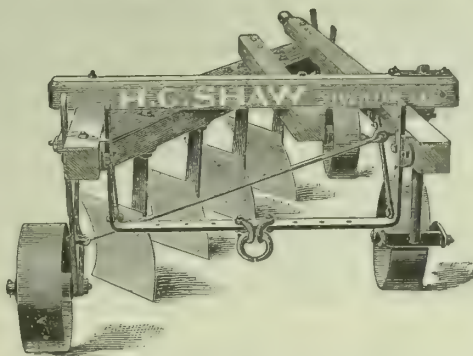
RANGE NOTES.—Horses are looking well on the range, but cattle and sheep are rather poor. The last season was a poor one for the growth of bunchgrass, and we hear on all sides the old saying, "The range is gone," but it is not entirely. We must fence pastures and save grass for winter range. By so doing we can carry our horses and cattle through an ordinary winter without feed, but in case of a very severe winter they can be fed, though if they are scattered on the range they cannot be gotten to the feed. Under present conditions, we must run less stock and of a better quality and care for them better, and our profits will be just as large and investments much safer.

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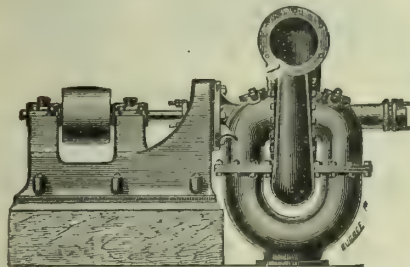
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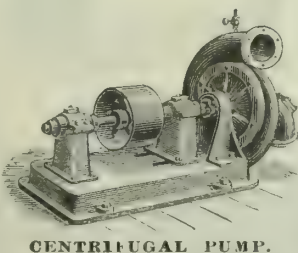
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THE VETERINARIAN.

Splenic Apoplexy, Splenic Fever, and Texas Fever in Cattle.

Several parties have written me recently concerning these diseases. Splenic apoplexy is undoubtedly one of the most frequent forms of anthrax in cattle. It is remarkable for its sudden appearance, its extreme fatality, and its rapid course. It will occur among all kinds of cattle, but especially those out at pasture, and supplied with contaminated water. It is also attributed to bad or too nutritious food, too sudden changes of diet, and other ordinary influences, but nearly every outbreak may be traced to contagion, direct or indirect. This used to be cited as an example of a disease of a specific character, originating spontaneously, but we know now that the apparent commencement of the attack is simply when the bacilli begin to manifest their effects. For some time they must have been increasing in the system. Until lately, then, investigators have not been accustomed to look for causes in the past, except the most recent, and until actual experiment proved conservation of the spores in all their power of development, we were right not to attribute cases of this kind to others which preceded them some time. Also, we have only lately learned the various forms which anthrax may assume.

Symptoms.—The appearance of the disorder among a number of cattle is denoted frequently by death of some of them in a very short time. Several may be found dead in the morning; others may be affected but withstand the disease longer, though death usually occurs within 24 hours. Fever and general symptoms are present, and in the early stages the animal is excited. The temperature is much increased. Abdominal pains appear, the patient is very uneasy; the pulse is rapid, small, and fluttering; breathing accelerated and labored. Pain is expressed upon pressure of the loins; there is a stiffness and staggering gait; also, a discharge of saliva from the mouth, and muscular twitchings over the body. Debility sets in rapidly. The feces and urine are bloody. The pulse is imperceptible, and paralysis supervenes, so that the animal is recumbent. Convulsions occur in the latter stage, and the animal dies generally by anæmia and coma. In all cases death is ushered in by rapid and extreme fall of the internal temperature.

Treatment.—Curative measures have not been found useful. Prophylactic means comprise those recommended for anthracoid cases in general. Dogs and pigs have been known to die from eating the evacuations, although some animals can withstand anthrax. The high temperature of birds, or their highly oxygenated blood, defends them in the majority of cases. On the other hand we have positive proofs of cases of anthracoid disease in fish. When bacilli are introduced into the subcutaneous areola tissue of an animal which will not become affected, an abscess forms and so the organisms are confined and then thrown off. M. Pasteur has announced that by a special method of culture he has so modified the bacterium of fowl cholera that inoculation with the altered fungus secures immunity from future attacks.

Prof. Toussaint, the distinguished physiologist at the Toulouse Veterinary school, France, has announced that anthrax blood, from which the bacilli have been removed by filtration, is effectual for what he terms "anthrax vaccination." He says that when employed according to certain rules the heating, for a very brief time, of blood infected with bacteria transforms that fluid into a vaccine as certain in effect as that of Pasteur. The mode of entry of the anthrax bacillus into the organism has been the object of comparatively recent research. MM. Pasteur and Toussaint simultaneously arrived at the result that in almost every case the food is the vehicle, and wounds are the points of entry.

Toussaint proved this by careful post-mortem examinations in which he found the lymphatic glands in connection with the mouth and pharynx in the large majority of cases earliest involved. Pasteur found that only animals with injured mouths, who fed on forage watered with culture fluid containing the bacillus, became affected, and that when harsh, irritating food was given, almost all the animals experimented upon succumbed.

Post Mortem Examination.—Post-mortem examination of cattle that have died from splenic apoplexy shows the spleen enormously distended by the dark blood, which gravitates freely, since the tissue of the organ is broken down. The blood, tissues in general, serous mucus, etc., present the characteristic anthrax lesions, which are especially marked in the bowels. The contents of the intestines and bladder are mixed with blood.

Texas Fever

Is an anthracoid enzootic of the region of the Gulf of Mexico, whence it is spread through the cattle districts of the United States by contagious influences. It closely resembles splenic apoplexy. I have seen numbers of cases of Texas fever when in Texas with the U. S. army, and have frequently been called in to treat and make post-mortem examinations of cattle which have died from this disease. I

found that it differs from splenic apoplexy in the following points: The urine is a reddish-black, sometimes coffee-colored, and frequently with a foul odor. If allowed to stand for a day it gives a brick-colored precipitate. Sometimes the urine is streaked with blood. Abdominal pains seldom present, mucous membranes grayish. The ticks are considered an important aid to diagnosis in doubtful cases. They tell whence the animal came, or the exposure it has encountered. "A sick creature covered with ticks and showing a high fever heat on thermometer" is almost sure to be suffering from Texas fever in the early stages (*Chicago National Live-Stock Journal*). Texan cattle do not suffer so much from the disease as those that are traveling through from other States and become infected by contagious influences. The disease is not so rapidly fatal as splenic fever, it generally lasting three or four days, and prevails during the hot summer months.

Prevention.—The prophylactic means are most important. All animals dying from anthracoid affections should be removed from the pasture before post-mortem examination. The carcasses should be burned in the hides, or, the skins having been thoroughly slashed with a knife, should be buried in quick-lime. Ordinary burial is not sufficient, for the spores of the bacilli pass to the surface of the ground (some say they are carried there by earth-worms); thus each grave becomes a fruitful center of contagion. All ejecta, blood, etc., from diseased animals should be collected and mixed with quick-lime. Pigs, dogs and poultry should not be allowed to feed on blood, flesh, etc., of anthracoid victims. It must also be remembered that the disease is communicable to man by inoculation, so it is very necessary to be extremely careful in making post-mortem examinations. The flesh ought never to be used for the food of any animal. It gives rise to malignant carbuncles in man. The milk of animals suffering from anthracoid diseases is a vehicle of contagion, its properties are altered, and its odor and color changed. The list of human disorders of an anthracoid nature obtained from animals is rapidly increasing—a happy indication that they will in future be prevented by removing their causes. Some day, doubtless, we shall see human and veterinary practitioners co-operating in this matter for the benefit of mankind. A. E. BUZARD, M. R. C. V. S. L. No. 11 Seventh St., S. F.

Diseases Among Horses in San Diego County.

EDITORS PRESS:—Many of the horses in this section of the county are affected with what some call nasal gleet; others think it is glanders.

There is no veterinary surgeon near. The disease has prevailed for about three years and the number of affected animals has gradually increased.

We are anxious to know its real nature. Is there a State veterinary surgeon? If so, does the law make it his duty to visit and examine diseased stock?

Does nasal gleet or any other disease "run into glanders"? Are the submaxillary glands adherent to the bone in all well-developed cases of the latter disease? Will you kindly give us through your paper some light on this subject?—J. A. PRUITT, M. D., Fall Brook, San Diego Co.

EDITORS PRESS:—From so many of the horses being affected, as described by Dr. Pruett, I am very much afraid they are suffering from glanders.

There is no State veterinary surgeon. Nasal gleet (ozena) never terminates in glanders.

Glanders and Farcy are employed to designate merely phases or manifestations of the same diseased condition. This condition is termed "glanders" when the specific or diagnostic symptoms and lesions are connected with the mucous membrane of the nose, upper air-passages and the lungs, together with lymph vessels and glands adjacent thereto; and "farcy" when the morbid agent seems to locate itself, and is inducing specific changes in the skin and subcutaneous connective tissue with the lymphatic vessels and lymph-glands belonging to these. Although glanders is peculiarly a disease of the equine species, it is undoubtedly capable of transmission to many other animals, and to none probably oftener than to man. (There are many authenticated cases on record in this State.)

There is no doubt that glanders is due to an introduction into the system of a micro-organism. Bacterial forms have been met with in this disease; in fact, they are always present, but they frequently are so minute that with the aid of the most powerful microscope, and under the most favorable circumstances, they have failed to be recognized; they must be developed by cultivation before being found by the microscopist in many cases.

The submaxillary lymphatic glands when first participating in the morbid processes going on in the course of the development of the disease, become full and enlarged, partly from infiltration in the true gland-structures, but chiefly from the same condition occurring to the surrounding connecting tissue among which they are placed. The feeling is at first of a soft and doughy character, attended sometimes with a trifling amount of pain. Gradually this soft swelling is replaced by a condition of greater firmness and less sensibility. The swelling, whether of one or both glands, is more marked as increasing the bulk of the gland antero-posteriorly than across the space. With the acquirement of the modulated condition we also

notice that the ability to be moved from place to place by pressure with the fingers is much impaired, gradually to be lost altogether, the gland becoming fixed both to the superadjacent connective tissue and to the jaw. Although this phenomena or condition of the submaxillary lymphatic gland or glands may usually be regarded as diagnostic of chronic glanders of the horse, it is yet certain that many cases occur where this peculiarity is absent. I met with one case in particular when recently on an official tour of inspection of the horses in Contra Costa county, where there was an entire absence of any enlargement of either of the glands, and yet I knew that the horse was deeply infected with the specific poison. There are also other cases where some of the abnormal conditions generally noticed in glanders are absent, sometimes being little or no noticeable discharge from the nostrils; and in some the ulcers on the Schneiderian membrane of the nose are not sufficiently near the exterior part to be noticeable.

I think it very necessary for horse-owners generally in your district to engage the services of a thoroughly qualified veterinary surgeon—one who is well experienced in this dreadful disease—to make a thorough investigation of the animals with suspicious symptoms. It is in the power of the county supervisors to appoint a veterinary surgeon to inspect horses for glanders.

A. E. BUZARD, M. R. C. V. S. L.
No. 11 Seventh St., S. F.

Percheron-Norman Stable.

Messrs. H. Wiley & Co., importers and breeders of horses, have erected a fine structure on Main street, Petaluma, and known as Petaluma stables. It is built of brick, 84 feet wide by 135 feet long, two stories and basement, on a lot running back to the creek 632 feet. The appointments and arrangements are complete with blacksmith-shop, ladies'-room, office and stable with 70 stalls, five feet four inches wide, besides box-stalls and sheds and compartments back of the main building.

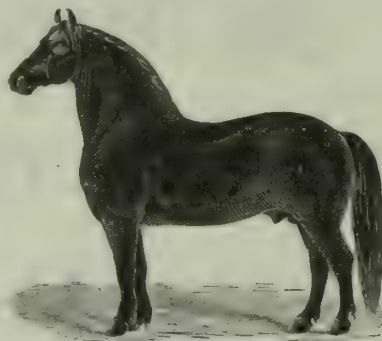
The lower half of the basement, which is well lighted and has ventilators every six feet running to the top of the building, is used for the imported stock. The present stud consists of the following:

Imported Lord McDuff, two years old, a bay with dark points, weight 1632 pounds, who took first premium and gold medal at Sonoma County Fair in 1888.

Duran, two years old, dark bay with dark points, weighs 1615 pounds. Imported from France in 1887. Took first premium at Napa, Sonoma & Marin District Fair in 1888.

Victor, coal black, two years old, weight 1580 pounds.

Attila, three years old, weighs 1750 pounds. Took first premium and gold medal at Sonoma



Norman Stallion Attila.

County Fair in 1888, first premium at district fair of Napa, Sonoma and Marin in 1888, and first premium and diploma at State Fair in 1888.

Mr. Wiley has had a large experience in importing horses, and has taken in the Percheron, Norman, Shire and other leading breeds. Since 1880 he has personally attended to the selection and importation of over 100 notable animals, and gained an enviable reputation as a sagacious and successful importer and breeder of fine horses.

The engraving presented herewith is a portrait of Attila, the three-year old Norman, faultless in form; color, jet black, with small, pointed ears, large full eye, smooth, bony head well set on a high-crested neck; long and well-formed barrel; short back, heavy across kidneys, broad and full breast, and with well-muscled limbs and perfect feet. He is 16 hands high and weighs over 1700 pounds, and is a horse of fine action.

Petaluma Incubator Factory.

Mr. L. O. Byoe, proprietor of the Petaluma Incubator, has established his factory in Hopper's new brick building, Main street, Petaluma. It has a frontage of 40 feet and extends 68 feet in length, with two stories and basement. The basement will be used for storage and engine-room. The office and show-room will have a frontage of 30 feet and 12 feet wide. An elevator will be placed in the building to connect with the basement.

The hatching of eggs by artificial heat has grown each year, and the Petaluma Incubator has been gaining favor each year as a reliable and practicable egg-hatcher. During this year we shall give an extended description of this factory, with details of making this popular incubator.

"Noonday 10,000."

Mr. Samuel Gamble of Oakland has just arrived from Kentucky, where he secured the celebrated stallion Noonday. He is a very handsome, stylish brown horse and comes from the most noted strains of standard-bred trotters. His season will be made at the Oakland racetrack.

Noonday is five years old; his sire, Wedgewood, record 2:19, 4th heat; the sire of Farona, 2:15, 4th heat; first dam Noonday, 2:20, trial 2:15; sired by Herold the sire of Maud S, 2:08; second dam Midnight, the dam of Jay Eye See, 2:10; third dam by Lexington, sire of the dam of Ance, 2:20; fourth dam by imported Glencoe, sire of the granddam of Farona, 2:15.

Mr. Gamble has had a large experience and acquired an extensive knowledge as a breeder of horses. The complimentary notices his horse has received through the press from the best authority among horsemen warrants us in predicting a successful season for this high-bred stallion.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or of some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

Kentucky SHORTHORN CATTLE.

On Tuesday, Jan. 29, 1889,

PREWITT & GOFF, of Winchester, Ky., WILL SELL

Ninety (90) First-Class Shorthorn Cattle AT THE

Bay District Course, San Francisco,

Representing old reliable families. Pedigrees recorded or accepted for record. Several competent judges have pronounced this the best large lot of cattle they ever saw. Ten of them premium animals in Kentucky last season. Refer, by permission, to Hon. John G. Carlisle, Hon. Wm. C. P. Breckenridge, Hon. J. C. L. Blackburn, J. H. Pickrell, Secretary National Herd Book Association, Chicago, and Mr. Wm. Warfield, Lexington, Ky.

For Sale to commence at 11 A. M. sharp.

KILLIP & CO., Auctioneers.

For Catalogues apply to No. 23 Montgomery Street, or at the Bay District Track.



H. H. H. HORSE LINIMENT.
THE H. H. H. Horse Liniment puts new life into the Antiquated Horse! For the last 14 years the H. H. H. Horse Liniment has been the leading remedy among Farmers and Stockmen for the cure of Sprains, Bruises, Sift Joints, Spavins, Windfalls, Sore Shoulders, etc., and for Family Use is without an equal for Rheumatism, Neuralgia, Aches, Pains, Bruises, Cuts and Sprains of all characters. The H. H. H. Liniment has many imitations, and we caution the Public to see that the Trade Mark "H. H. H." is on every bottle before purchasing. For sale everywhere for 50 cents and \$1.00 per bottle.

For Sale by all Druggists.

MANSION HOUSE,

Opposite the Plaza,

WATSONVILLE, CAL.

First Class. Free Coach to and from the Depot.

MAJOR C. L. PACKARD, Prop'r.

PIONEER BOX COMPANY,

Manufacturers of all kinds of

FRUIT and PACKING BOXES,

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The two cheapest and best Mills made in the State. Manufactured and sold by

E. H. LEWIS,

Cor. Alameda & Montgomery Sts., SAN JOSE, CAL.

Send for Circulars.

BACK FILES of the PACIFIC RURAL PRESS (unbound) can be had for \$3 per volume of six months. Per year (two volumes) \$5. Inserted in Dewey's patent binder, 50 cents additional per volume.

Lands For Sale and To Let.

A RARE BARGAIN!

The undersigned offers for sale, on good terms, his CLOVERDALE DAIRY FARM of 500 acres, situated on Squirrel Creek, 2 miles west of Grays Valley. It is well watered by springs and has excellent irrigation facilities, commodious farm buildings, orchard of 160 trees and 6 acres of vineyard. A fine herd of Holstein, Ayrshire, Jersey, and Durham (thoroughbred and grade) cattle for sale with or without the ranch. Holstein and Ayrshire premium bulls on lowest terms, including "Tehama," which, on account of kinship to the herd, can no longer be used in breeding. A good dairy route is also included in this offer.

H. B. NICHOLS, Proprietor.

CHICO VECINO!

Best location in the State of California for beautiful suburban

HOMES.

Located near the thriving city of CHICO, Butte County, California. Subdivided from the heart of the famous

RANCHO CHICO,

the well-known property of

GENERAL JOHN BIDWELL.

Town Lots and acreage property, from fractions of an acre upward. TERMS REASONABLE. For further particulars, address:

CAMPER & COSTAR,
Real Estate Agents,
Chico, Butte Co., Cal.

LAND TO RENT

On Exceedingly Liberal Terms.

The S. E. quarter of Sec. 13, T. 21, R. 23, and all of Sec. 15, T. 23, R. 24, in the artesian belt in Tulare county, will be rented at a nominal rent for winter sowing, if applied for soon. The greater part of this land is rich, level and all ready for the plow. Address L. E. Smith, Pixley, Tulare Co., Cal., or Ranch Owner, office RURAL PRESS San Francisco, Cal.

FOR \$5000.

A Ranch in El Dorado county, near Placerville, contains 160 acres, nearly all fenced in with a four-strand barbed wire fence, a good house of 11 rooms, hard finished, two brick chimneys, cut stone basement with cut stone steps, a good barn and stable, chicken house, work shop and other out-houses, a good well of water, one water ditch for the land, 1000 fruit trees, all in bearing, Peach, Apple, Fig and Cherries, 1000 Grapevines; 80 acres cleared and ready for the plow, all nearly level; about 25 acres woodland, pines, etc., all of which can be cleared; three cows and two calves. The Ranch is five miles from Coloma and nine miles from Placerville. The soil is a red loam, the house stands on the county road and the stage passes it twice every day. A span of horses, a new harness and wagon, plow, harrow and other farming utensils to be given with the Ranch. The Title, U. S. Patent. For further information address "RANCH," Box 2361, San Francisco, or care of Illustrated Publishing Co., 220 Market St., S. F.

Agricultural and Grazing LANDS FOR SALE.

7975 Acres of fine grazing and agricultural land, including 4000 head of fine grade stock sheep; abundance of water; 9 miles from Merced City, and near Merced River; price, \$7.25 per acre; 1000 acres good wheat land. Address

OSTRANDER & SONS,
Merced, Cal.

Or N. C. CARNALL CO.,
624 Market Street, San Francisco, Cal.

FOR SALE OR EXCHANGE.

Ranch of 200 acres on Coquille River, Coos County, Oregon; 40 acres bench land 160 acres bottom, 80 acres under cultivation; 1 1/2 miles from Coquille City, one half mile from steamer landing. An abundance of fine spring water on place. Price, \$1500 cash, or will exchange for California property in vicinity of San Francisco Bay. For further particulars apply to

H. GOETZ,
659 Clay St., San Francisco, Cal.



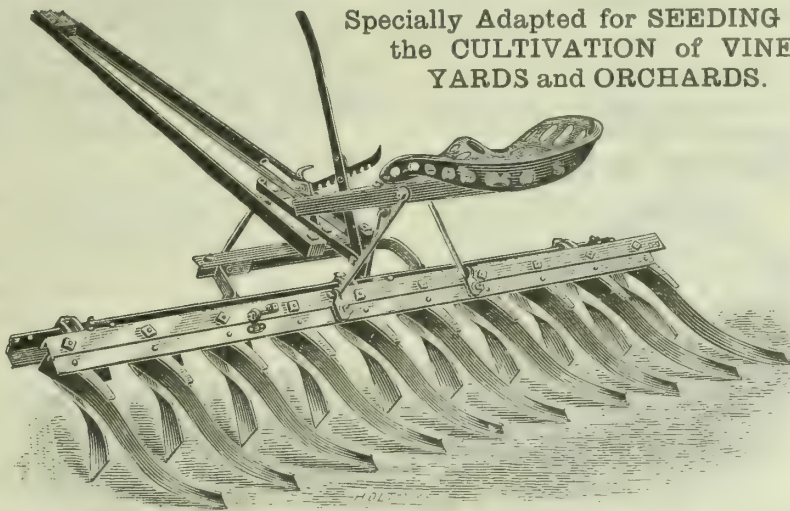
HORSE POWERS, WINDMILLS, TANKS
and all kinds of Pumping Machinery built to order. Awarded Diploma for Windmills at Mechanics' Fair, 1885. Windmills from \$85. Horse Powers from \$50. F. W. KROGH & CO., 61 Beale Street, San Francisco.

99 Sample Styles of Hidden Name and Bulk Fringe Cases, Slight of Hand Trunks, Remingtons, Trunks, Cases, Combs, etc., and how you can make \$10 a day at home. All for a 3 cent stamp. HONE AND YOUTH, CADIZ, OHIO

ONE MILLION ACRES.
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REAL ESTATE AGENTS,
SUCCESSORS TO THE
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Send 10 cents for C. H. Street & Co.'s map and description of California and colony lands (74 pages). Land for sale in large or small tracts; on the coast or in the interior; valley, hill, mountain, open, timber, mineral, or non-mineral land; improved or unimproved; with or without irrigation; suitable for stock, dairy, grain, fruit, or general farming; for investment or actual settlement; for cash or on installment; will show Government land. C. H. Street & Co., 415 Montgomery St.

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Specially Adapted for SEEDING and the CULTIVATION of VINEYARDS and ORCHARDS.

DO NOT BE DECEIVED BY WORTHLESS IMITATIONS.

All Genuine bear TRADE MARK.

Have Steel Clod Crushers, DOUBLE FLEXIBLE GANG-BARS,

AND THE IMPROVED STYLES ALSO HAVE

Adjustable Reversible Coulters,

Which, when worn, may be turned end for end, thus giving double the amount of wear.

WORKS THE ENTIRE SURFACE OF THE GROUND.

No Other Harrow Combines these Points.

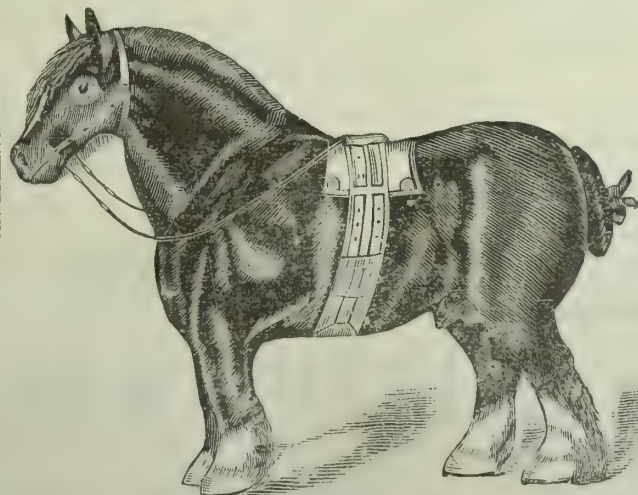
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Terms,

"ROYAL TOPSMÁN," Just Imported.

Five years old, over 1800 pounds, sound and kind, good action, well bred and a first-class horse for breeding.

ALSO OTHER STALLIONS FOR SALE.

Inquire of C. L. TAYLOR, 428 California Street, San Francisco, Cal.

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General Produce Commission Merchants,

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75,000 TONS CAPACITY. 75,000

Storage at Lowest Rates.

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Grand Opportunity

—TO ACQUIRE—

A Small Tract

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Best Fruit & Vineyard Land

—IN—

Central California!

Reasonable Prices and Easy Terms.

BY ORDER OF THE

Natoma Water & Mining Co.

WE OFFER AT PRIVATE SALE

1000 ACRES!

—OF THEIR—

MOST PRODUCTIVE LANDS,

Suitable for Fruit, Vines and Vegetables, in subdivisions

5, 10 and 20-Acre Tracts.

The tract now offered in subdivisions is situated on the south side of the American river, 18 miles from the city of Sacramento, the Capital of the State, adjoining the town of Folsom, and on the Sacramento and Placer-ville Railroad.

Two hundred acres are now planted in fruit, in full bearing; the balance of the land, 800 acres, is now ready to plant either in fruit or vineyards.

The soil is of a very superior quality, being a deep rich loam, well drained, and capable of producing every variety of fruits or vegetables, including the peach, apple, apricot, cherry, pear, plum, prune, nectarine, quince, fig, almond and walnut. The topographical feature of this locality is the gentle slope of the land, insuring perfect drainage.

Facilities for Irrigation.

Water for irrigation and other purposes will be furnished to all who desire it at the Company's rates. The water is taken from the American river, near Salmon Falls, and the ditch has a capacity of 3000 miners' inches and a never-failing supply of water. All of the land now offered for sale lies below the ditch, and consequently can be irrigated therefrom. This is a very important item and greatly increases the value of the land, as by irrigation a sure crop can always be depended upon, even in the driest of seasons. The irrigating ditches run directly through the tract, and in addition to this, an unfailing supply of pure and soft water can be obtained from wells at a depth of from 40 to 100 feet.

Transportation Facilities.

The transportation facilities, a very important factor to all fruit-growers, are of the very best; the Sacramento and Placer-ville Railroad running through the orchard its entire length and having a receiving depot in the most central location on the tract, so that no fruit has to be hauled more than half a mile.

Why the Land Offered is a Profitable Investment.

The soil is of the best, being sandy loam and sediment, and adapted to the choicest quality of all varieties of fruits and vegetables. The property is located in that portion of the State where all fruits ripen early, and naturally command the highest prices.

The property is also situated in the central part of California, and in the center of a great fruit-producing section, and immediately adjoining the principal markets of the coast—by the quick transportation facilities which it enjoys.

The company will assist purchasers of their lands by giving them employment in preference to all others, furnish them water for irrigation at very low rates, assist them by their knowledge of the property in planting the different varieties of fruit and vines on the lands to which they are best adapted, furnish pasture for stock, and in fact they will at times be prepared to render such assistance to purchasers that will be of benefit to them in cultivating, selling and shipping their products.

The products of the lands of the NATOMA WATER AND MINING COMPANY have always commanded the highest market prices both on the Pacific Coast and in the Eastern market. The fruit is loaded in the cars on the property and is transported intact to its destination in the East and other markets, a facility of transportation that is of the greatest importance, and with these great advantages prosperity is assured, and to-day there is no better field for solid and profitable investment on the Pacific Coast, as these lands are offered at prices below those of other lands not so advantageously located, and not paying an immediate income.

The portion of the property set out in orchard is all in bearing; thus purchasers will at once receive an income, thereby enabling them to pay for the land from the products. Good soil, abundance of water, healthy climate, easy of access, close proximity to schools and churches, with low prices and easy terms combine to make the purchase of these lands the most profitable investment ever offered.

For maps, photographs, price-list and full information apply to

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Real Estate Agents & Auctioneers

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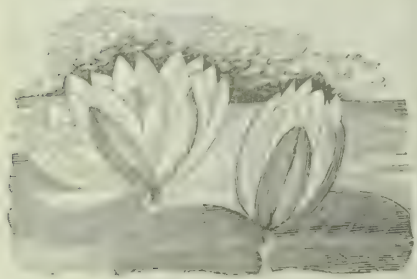
Lick House Building, San Francisco.

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E. K. ALSIP & CO., 1015 Fourth St., Sacramento, Cal.
G. H. SCHUSSLER, Esq., Superintendent of the Natoma Water and Mining Company, Natoma, Sacramento county, Cal.

Seeds, Plants, Etc.

WATER LILY ROOTS.



A large number of strong roots of our native (Eastern) Water Lily (Nymphaea odorata) for sale at \$4 per dozen or 50 cents each; sent C. O. D. by express.
Also 10,000 Riparia cuttings at \$3 per M.
R. JORDAN,
P. O. Box 120, Napa City, Cal.

PACIFIC NURSERY,

San Francisco, - - California.

Offers for sale this season the largest and best collection of

Azaleas, Camellias, Rhododendrons,

Roses, Clematis, Araucarias, Palms

Also Monterey Cypress, transplanted in boxes and open ground; Monterey Pine, transplanted; Pepper Tree, Juniperus Pfitersporinus, Veronias, Fuchsias in great variety, and a fine collection of hardy Ornamental Evergreen and Deciduous Trees and Shrubs. Eighty thousand rooted Riparia Grapes, Olives, Picholine and other varieties, Guava, two sorts, Blackberries, Kittingery, Lawton and other sorts. Fruit and Shade Trees in varieties. Address,

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Our sales in 1888 were \$100,000. Why? Because we sell only the best Reasonable Prices. Small Fruit Plants and Trees. Catalogue Free. FRANK FORD & SONS, Ravenshoe, Ohio.

Fay's Prolific Currant.
Two years old, fine, \$3 per 10; \$20 per 100; 1 year old, \$1.50 per 10; \$15 per 100. The above are genuine, splendid and ready to bear. Raspberry, Blackberry and Strawberry Plants at usual prices. Address, P. L. KINGTON & CO., Pearlman Nursery, Portland, O.regon.

PEAR TREES FOR SALE.

3000 Bartlett Pear Trees, two years old, for sale. Address: H. B. MUSCOTT, Box 54, San Bernardino, Cal.

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Successor to L. BURBANK,
LARGE STOCK of everything in the Nursery Line.

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NEWCASTLE EARLY,

Best and Largest Extra Early APRICOT.

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Roses, Shrubs, Vines, Bulbs and Flowers.

All our Trees Warranted Free from Scale and raised without irrigation.

OVER 6,000,000 people believe that it pays best to buy seeds of the largest and most reliable house, and they use

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1838 FIFTY YEARS. 1889. Facsimile of trademark label attached to each and every tree of "Wonderful Pear b." None reliable without it. Large stock of Raspberry, Strawberry and Blackberry Plants, Niagara, Moore's Early, Diamond, Esten and other Grapes, Kittingery and other Pears, Shaulding and Japan Plums, Apples, Cherries, etc. All the worthy old and promising new varieties. Catalogue Free. W. M. PARRY, Parry, N. J.

Muscat Cuttings and Rooted Vines

FOR SALE IN LOTS TO SUIT.
Address, EISEN VINEYARD CO., 12 Stevenson St., S. F., or Fresno, Cal.

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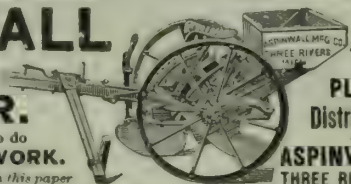
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Best and Strongest Explosives in the World.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.

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Absolute Guarantee given to do PERFECT and RAPID WORK.
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CABERNET SAUVIGNON,
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GRAPE ROOTS \$5 per thousand.

White Adriatic Figs grown and packed by me for sale by Goldberg, Bowen & Co., S. F., and Tillmann & Bendel, S. F.

M. DENIOKE, - - - FRESNO, CAL.

SAN JOSE, Jan. 7, 1889.
M. Denioke, Fresno—DEAR SIR: The figs sent to me to San Jose are very fine, and nothing has yet been produced in California to come any way near them. Inclosed are orders for 12 additional cases. Very truly,
JOHN ROCK.

TEXAS UMBRELLA TREES, California Walnuts and Locust Trees, FOR SALE BY

J. R. SPRINGER, P. O. Box 429, Wadland, Cal.

5000 One-Year-Old CENTENNIAL CHERRY TREES For Sale.

A. BOUTON, Healdsburg, Cal.

ROOTED LENOIRS, \$20 per 1000.

A. DRAHMS, Sonoma, Sonoma Co., Cal.

GRANGERS' Bank of California,

N. W. Cor. California & Battery Sts.,
SAN FRANCISCO.

NOTICE IS HEREBY GIVEN THAT AT A MEETING of the Directors, held on the 8th day of January, 1889, AN INSTALLMENT (No. 7) OF TEN PER CENT (equal to ten (\$10) dollars per share) was levied upon the capital stock of the corporation, payable immediately to the cashier, at the office of the Bank, San Francisco. Any stock upon which the installment shall remain unpaid

On the 7th day of February, 1889,

Will be delinquent and advertised for sale at public auction, and unless payment is made before, will be sold

On the 7th day of March, 1889,

To pay the delinquent installment, together with costs of advertising and expenses of sale.

A. D. LOGAN, President,
FRANK McMULLEN, Secretary.

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A. LUSK & CO.

Dealers in and Packers of

Canred Goods, Dried Fruits, Nuts and Raisins,

Have removed their offices and salesrooms to their new store,

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A practical treatise by T. A. GARRY giving the results of long experience in Southern California. 196 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, S. F.

JUDSON POWDER,

The Only Reliable and Efficient Powder For Stump and Bank Blasting. From 5 to 20 pounds blows any Stump, Tree or Root clear out of ground at less cost than grubbing. Railroaders and Farmers use no other.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.

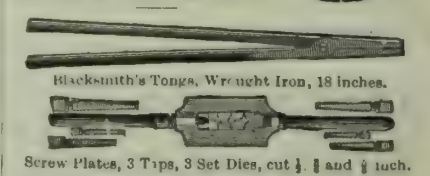
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FOR Farmers, Dairymen, Stockmen & Machinists



Blacksmith's Hot and Cold Chisels 1 1/2 lbs. each; both solid cast steel.



Screw Plates, 3 Tips, 3 Set Dies, cut 1/4, 1/2 and 3/4 inch.



EVERY TOOL GUARANTEED

And we offer this complete OUTFIT FOR ONLY \$25.00

Which is hardly half the regular prices, and none can afford to be without this set. Orders by mail promptly filled. Address,

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The HIRAM HOLT CO. East Wilton, Me.

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MYERS' SLIP SHARES

FOR SALE BY D. N. & O. A. HAWLEY, 221 & 223 Market Street, San Francisco

THE FRESNO NURSERY CO.

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GENUINE

Washington Navel Orange Trees

FLORIDA SOUR STOCKS, RIVERSIDE BUDS,

The Cheapest and Best in the Market

Raisin Grapevines and Cuttings.

APRICOT, PEACH and PRUNE TREES.

Texas Umbrella Trees.

D. W. LEWIS, Manager.

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ELY'S SEED MANUAL Contains all the valuable NEW Seeds, Bulbs & Plants. FOR 1889—Tells how to grow them, and SPECIAL PRICES. ELY & CO. 1301 and 1303 Market St. PHILADELPHIA, PA.



Come, Fellow Farmers!

It is the good things and the new things you want. Here is a Catalogue full of them! Do you want tested seeds, raised from stock selected with extra care, grown from the best strains, got from the original sources? I aim to have mine just such. Do you want new varieties that are really good, and not hardy seedlings? I aim to have mine such. Do you want seed that the dealer himself has faith enough in to warrant? I warrant mine, as the Catalogue. Do you want an exceptionally large collection to select from? Mine is such. Do you want them directly from the grower? I grow a large portion of mine—few seed-men grow any! My Yearly Label and Flower Seed Catalogue for 1889 FREE to every body. JAMES J. H. GREGORY, Marblehead, Mass.

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TRUMBULL, REYNOLDS & ALLEN.
GRASS, FIELD, GARDEN & TREE SEEDS,
FERTILIZERS, Etc.
Send for Catalogue. Mailed free.
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SEEDS



BUY NORTHERN GROWN SEEDS
Early Golden Potatoes, Beans, etc., and get nothing better. It is good SEEDS. 25 Pack-
ETTES of SEEDS, Northern Potatoes, \$1.00.
Perpetual LUCERNE CLOVER Warehouse area 2 acres. Send 8c stamp for WHITE WONDER OAT 50 lb. per bush and my grain samples and get finest Catalogue published in America. JOHN A. KAZER, Seed Grower, La Crosse, Wis.

Legislative Committees.

Following are the standing committees of the California Legislature as announced Jan. 15th:

Senate.

Agriculture—Dixon, Roth, Heacock, Langford, Flint, Hinshaw, McComas, Mead, DeLong.
Apportionment and Representation—Roth, Welch, Hamill, Sprague, Bowers, Fraser, Byrnes, Spellacy, Hinshaw.
Attaches, Contingent Expenses and Mileage—Murphy, Fraser, Preston, Dixon, Welch.
Banks and Banking—Boggs, Langford, Preston, Hamill, Dargie.
Chinese and Chinese Immigration—Pinder, Banks, Mead, Meany, Greely, Britt, Campbell.
City, City and County, and Town Gov'ts—Moffitt, McComas, Bowers, Langford, Crandall, Roth, McDonald.
Commerce and Navigation—Spellacy, Murphy, Bowers, Langford, DeLong, Byrnes, Pinder.
Constitutional Amendments—Boggs, Heacock, Crandall, Yell, Wilson, Dixon.
Corporations—Goucher, McGowan, Campbell, Heacock, Dargie, Hinshaw, Wilson, Roth, Langford, Mead, Pinder.
Claims—Meany, Roth, Heacock, Hinshaw, Langford, Fraser, Wilson.
Counties and County Gov'ts and Township Organization—Hinshaw, Caminetti, Flint, Moffitt, Boggs, Conklin, Dray.
Educational—Caminetti, Conklin, Flint, Preston, Moffitt, Murphy, Jones.
Elections—Yell, Campbell, Crandall, DeLong, Meany, Pinder, Williams.
Engrossed Bills—Hamill, Greely, Sprague, Banks, Mead, Dixon, Welch.
Enrolled Bills—Mead, Williams, Jones, Bowers, McGowan, Fraser.
Federal Relations—Britt, Hinshaw, McDonald, Crandall, McCowan.
Finance—Moffitt, DeLong, Dray, Boggs, Langford, Caminetti, Crandall.
Fish and Game—Pinder, McGowan, Campbell, Williams, Briceland, Sprague.
Forestry, Yosemite Valley and Mariposa Big Tree Grove—Meany, Boggs, Byrnes, Wilson, Roth.
Harbors, Rivers and Coast Defenses—Langford, Bowers, Banks, Hamill, Spellacy.
Hospitals—Briceland, Byrnes, Bowers, Mead, Roth.
Immigration other than Chinese—Welch, Williams, Britt, Fraser, Conklin.
Irrigation and Water Rights—Caminetti, Bowers, McComas, Dargie, Roth, Meany, Heacock, Dixon, Mead.
Judiciary—Jones, Caminetti, Crandall, Goucher, Heacock, McGowan, Moffitt, Sprague, White, Wilson, Yell.
Labor and Capital—Britt, Byrnes, Banks, Welch, Boggs.
Mines, Drainage and Debris—Mead, Preston, Greely, Langford, Dray, Roth, Murphy.
Military—Yell, Wilson, Jones, Goucher, McGowan, Pinder, Bowers.
Public Buildings, other than Prison—Williams, McDonald, Meany, Dargie, Moffitt, Conklin, Dray.
Public Morals—Spellacy, Briceland, Fraser.
Public Printing—McDonald, Moffitt, Dargie.
Public Swamp and Overflowed Lands—Langford, Greely, Hinshaw, Dray, Boggs.
Roads and Highways—Roth, Boggs, Hinshaw, Dixon, McComas, Flint, Campbell.
Rules—Hamill, Welch, Flint.
State Library—Murphy, McComas, Caminetti.
State Prison and Prison Buildings—Goucher, Langford, Boggs, McComas, DeLong, Hinshaw, Caminetti, Wilson, Heacock.
Viticulture—Langford, Hinshaw, Sprague, McComas, Dixon.

Assembly.

Attaches and Employees—Long, Mulgrew, Tucker, Young, Maher.
Elections—Burwell, Long, McCarthy, Hall, Stander, Davis, Brown.
Judiciary—Seawell, Storke, Hall, Shanahan, Tully, Renison, Whitehurst, Tucker, Coombs, Salomon, Hyde, Young, Dibble, Lowe, Hart.
Constitutional Amendments—Storke, Whitehurst, Hall, Tully, Coombs, Damron, Young.
Federal Relations—Renison, Shanahan, Whitehurst, Hyde, Salomon, Culver, Mathews.
State Hospitals—Mathews, Mulgrew, Burwell, Searey, Atherton, Brierly, Murray.
Internal Improvements—Kiernan, Murray, Dixon, Lowe, Edwards.
Ways and Means—Shanahan, Whitehurst, Storke, Ostrom, Mathews, Coombs, Alexander, Atherton, Dibble.
State Prisons—Adams, Black, Brannan, Ostrom, Berry, Fawcett, Simpson, Atherton, Maher.
Election Laws and Apportionment—Hall, McVay, LaGrave, Rundell, Storke, Dibble, Hersey, Edwards, Ragsdale.
Labor and Capital—Dobbin, McCarthy, Reagan, Mullaney, Kiernan, Simpson, Johnson, Williams, Maher.
Swamp and Overflowed Lands—McMullin, Crawford, Mullaney, Burnett, LaGrave, Fassett, Campbell, Brickwedel, Hook.
Water Rights and Drainage—Whitehurst, Bangs, Wear, Brannan, Ostrom, Sykes, Petrie, Turner, Chapman.
Agriculture—Berry, Adams, McMullin, Rundell, Fassett, Porter, Campbell.
Chinese Immigration—McCarthy, Searey, Mullaney, Dobbin, Tully, Chapman, Porter, Brickwedel, Hersey.
Corporations—Ostrom, Mulgrew, Berry, Stander, Seawell, Dibble, Ewing, Turner, Alexander.
Agricultural, Mining and Mechanical Arts—Tulloch, Burwell, Reavis, Frank, Atherton, Hersey, Williams.
Commerce and Navigation—Reagan, Black, Burnett, Young, Ewing.
County and Township Gov'ts—Bangs, Murray (San Francisco), Tucker, Storke, Reynolds, Culver, Coleman, Brickwedel, Chapman.
Crimes and Penalties—Tully, Seawell, Bangs, Coombs, Dibble.
Viticulture—McMullin, James, Adams, Frank, Coombs, Edwards, Brown.
Claims—Mulgrew, Black, Shanahan, Reavy, Young, Salomon, McKeown.
Counties and County Boundaries—Mullaney,

McVay, Rundell, Shanahan, Renison, Ragsdale, Hart, Sims, Sykes.
Fish and Game—Frank, Reavis, Dobbin, Culver, Ewing, Murray, Mahler.
Education—Crawford, Black, Wear, Bangs, Petrie, Brierly, Turner.
Silk Culture—Dinan, James, Hall, Johnson, Coleman.
Homesteads and Lands—Reavis, Crawford, Dinan, Reagan, Fassett, Coleman, Simpson.
Irrigation—Tucker, Berry, Wear, Bangs, Mathews, James, McMullen, Adams, Holmes, Davis, Brierly, Hook, Edwards.
Military Affairs—Murray, Searey, McCarthy, Holmes, Johnson.
Mines and Mining Interests—Mahler, Tulloch, LaGrave, Reavis, Gardner, Davis, Coleman.
Municipal Corporations—Burwell, Burnett, McVay, Reynolds, Seawell, Berry, Salomon, Damron, Johnson, Simpson, Chapman.
Public Expenditures and Accounts—Wear, Ostrom, Burnett, Brown, Alexander.
Public Printing—LaGrave, Mulgrew, Mulvey, Wear, Ragsdale, Lowe, Holmes.
Public Buildings and Grounds—Stander, Black, Reagan, Mullaney, Mahler, Davis, Campbell, Porter, Hersey.
Yosemite Valley and Big Trees—Rundell, Tulloch, Crawford, Gardner, Hook.
Public Morals—Sims, Frank, Adams, Tulloch, Damron.
Indian Affairs—Tucker, Reavey, Mulvey, Williams, McKeown.
Retrenchment—Reynolds, Ostrom, Tulloch, Petrie, Sims.
Public Lands—Black, Tully, James, Kiernan, Brannan, Sykes, Hyde, Holmes, Murray of Humboldt.
Roads and Highways—McVay, Renison, Mahler, Kiernan, Ragsdale, Turner, McKeown.
Engrossment—Leary, Long, Mullaney, Maher, Gardner.
Enrollment—Reavy, Reynolds, McMullin, Atherton, Hook.
State Library—Burnett, Seawell, Stander, Brierly, Ewing.

Winter in South-rn Shasta.

EDITORS PRESS:—Weather fine, good view of eclipse. Up to the present has been an unusually warm winter. Feed is reported to be the best for years. Streams are low. The ground in the mountains did not get wet before the snows came. Not much snow in the Sierras so far.

For nearly two weeks we were treated to the daily spectacle of the fog lying in the Sacramento valley like an inland sea, sometimes tossed into huge white waves, at others smooth and glassy. On one day it presented the most magnificent spectacle that it has ever been my good fortune to behold. The sun shone through an upper layer of clouds upon this sea of fog in the valley at the proper angle to give it the appearance of deep red flames. Over a triangle of 50 miles on a side, about 1000 square miles seemed a rolling, waving ocean of fire.

From experiments made last year it is found that nearly all of the mountain land not so situated as to be capable of irrigation will raise good crops of wheat-hay without any irrigation. Let me give you, for the benefit of your Eastern readers, a sketch of a California winter away up in the mountains. 3200 feet high in the cold Sierras: On Nov. 6th and occasionally since we had frost, but the weather usually is like some spring days in the East, neither cold nor hot, but just right, and thoroughly delightful; children play outdoors all day barefooted, for they won't wear shoes if they can avoid it.

The California lilac and manzanita are budding and nearly ready to bloom. Radishes and lettuce are large enough to eat. A few weeks ago and perhaps yet, strawberries and string beans were gathered in the neighborhood.

If any one would take a little pains with a winter garden, almost all vegetables could be raised here in a reasonably mild winter. Potatoes, cabbage, carrots, parsnips, etc., frequently remain in the ground all winter, being dug only as required. Now, if you will remember that this is in the professedly cold part of the State, you can imagine what winter is like in the warm parts.

Shingletown, Jan. 1, 1889.

Muzzling Tree Roots Against Gophers.

EDITORS PRESS:—In searching for some means to circumvent the active gopher in his quest of the (to him) edible roots of our just-planted fruit trees, it has occurred to me that about the most effective thing that could be devised would be to place in the holes in which the young trees were about to be planted a cylinder two feet in depth and two feet in diameter, made of black iron wire netting of say three-fourths' inch mesh. This could be buried so that the upper edge would be covered from four to six inches, and as it is known that the gopher does his work at a depth of from 12 to 18 inches, I believe that this would be found to be a perfect defense against his ravages.

I advocate the use of black iron instead of galvanized netting, both on account of its cheapness and of its more rapid oxidation, as it is not advisable to use any material for such a purpose that would retain its integrity for more than three years, and by that time the trees would be strong enough to resist any attack the gophers might make.

Penns Grove.

WM. P. EDWARDS.

A BELIEF is growing that the relations between Germany and the United States are becoming strained owing to the difficulties in Samoa.

The National Farmers' Alliance

Held its annual session at Des Moines, Iowa, on the 10th and 11th instant, about 50 delegates being present from Dakota, Iowa, Nebraska, Wisconsin, Kansas and Minnesota.

Steps were taken toward consolidation with the Southern Farmers' Alliance. Resolutions were adopted in favor of the forfeiture of all unearned railway land grants and the repeal of all laws granting such, favoring Governmental telegraph, early construction of the Hennepin canal, and asking that the Interstate Commerce law be kept intact unless changed by more restrictive measures.

A memorial to Congress was adopted declaring that the Government should issue money direct to the people instead of through the National banks; also that U. S. Senators should be elected direct by the people.

J. Burrows Filley of Nebraska was elected president; H. L. Lucke of Clear Lake, D. T., vice-president; August Post of Moulton, Ia., secretary; J. J. Farlong of Austin, Minn., treasurer; and Alvin D. Chace of Watertown, D. T., lecturer.

California Products at Chicago.

CHICAGO, Jan. 16.—Easter Burre pears are the only California fruit on the market; they bring \$3.25 @ 3.50 in a small way.

For California dried fruit the demand is slack and trade is backward. Raisins, especially London layers, rule steady, but for all other descriptions there is an easy market. Prices range as follows:

Apricots—Evaporated, bleached, bxs, 13@14c; do, sun-dried, bleached, sks, 9@12c. Apricots, sun-dried, unbleached sks, 7@9c. Peaches—Evaporated, bleached, unpeeled, bxs, 8½@9½c; do, sun-dried, bleached, unpeeled, sks, 7@8c; do, unbleached, unpeeled, sks, 4½@6c. Nectarines—White, evaporated, bleached, bxs, 9@10c; do, sun-dried, sks, 8@9c; do, red, evaporated, bleached, bxs, 8@9c; do, sun-dried, bleached, sks, 7@8c. Plums—New, pitted, 9@10c; new, unpitted, 4@7c. Prunes, according to size, in sks, 5@9c; do, Silver, 8@10c.

Raisins—Loose Muscatels, new, ½ box, \$1.10 @ \$1.30; do London layers, new, \$1.75 @ \$2.25.

Beans are moving off moderately and the market presents the same features as have lately been seen. Stocks are only moderate. Prices are given below: Pea beans, \$1.95 @ 2; Lima beans, California, ½ lb. 4½c.

California Poultry Farm.

Messrs Cutting & Durland, proprietors of the California Poultry Farm at Fresno Camp, near Stockton, are keeping pace with the times and importing each year fresh stock of standard and new varieties of fancy fowl. They have made shipments to all parts of the Pacific Coast and to Mexico and Florida. Recently they made a shipment of 258 birds to Japan for and on account of the Japanese Government.

IN THE COW STABLE.—Where cows are milked in the stable, cleanliness is the most important essential. If the gutter is in the right place, the cow herself need not be soiled by excrement. All should be removed before milking begins. Many cows will void more after milking has begun, and it is better to stop work and cover the droppings with a handful of land plaster than to continue milking while every stream passes through air filled with foul odors. It is not merely for cleanliness that this should be done. The plaster helps to fix in the manure-pile ammonia that would otherwise be lost.—*American Cultivator*.

CHARMED WITH VENTURA.—Mr. M. J. Twining, whose delicious comb-honey, made by bees fed on alfalfa bloom, we had occasion twice to praise last summer, has moved from Hanford to San Buenaventura, and writes us enthusiastically of the lovely scenery and climate of his new abode. He is going into the bee-business with Mr. Chaffee, a mile from town, and, as bee-feed is plenty in the hills, hopes to have a large amount of superfine honey to market the coming season. If the product of his hives in Ventura rivals in quality what he sent us from Tulare, the output of the new firm should fall far short of the demand.

GEN. L. F. ROSS of Iowa City, Iowa, the well-known importer and breeder of Red Polled cattle, is spending the winter with his brother, H. L. Ross, in Oakland, and made us a friendly call one morning this week. RURAL readers remembering the likeness of his famous cow Floss 21 (1523), which we published in the fall of 1887, will be interested in learning that the general expects to order more Red Polls from England in March, and in June personally to visit the mother country and select a further importation, part of which he is likely to bring with him to this coast another season.

CITRUS FRUIT TREES.—We have received a copy of the catalogue for 1888-9 of Frost & Burges, proprietors of the Riverside Nurseries, Riverside, Cal. The establishment makes a specialty of choice budded orange and lemon varieties and sweet and sour seedlings. We find their collection of varieties quite full and desirable, and it includes a number of new sorts which will attract the attention of planters. The catalogue will no doubt be mailed on application.

ONE firm in Salt Lake City shipped 168,270 pounds of lucerne seed last fall.

WATSONVILLE is still hopeful of getting a flax-mill.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING JAN. 1, 1889.

395,616.—CARBURETOR—H. J. Dykes, Berkeley, Cal.
395,618.—CORK EXTRACTOR—Geo. Edwards, Berkeley, Cal.
395,433.—BEVEL GAUGE—M. O. Godding, Monrovia, Cal.
395,621.—DRIED-FRUIT CLEANER—John Harrel, Plymouth, Cal.
395,443.—CONDUIT ELECTRIC RAILWAY—B. Jennings, San Jose, Cal.
395,448.—PILE—R. B. Markle, Westport, Cal.
395,449.—GAS APPARATUS—J. A. McCollum, Riverside, Cal.
395,401.—GREASE EXTRACTOR—W. D. Nelson, S. F.
395,344.—FURNACE—J. P. Oliver, Oakland, Cal.
395,346.—COUGH MIXTURE—A. M. Poe, Lakeport, Cal.
395,587.—VINEYARD CULTIVATOR—C. Rebman, Napa, Cal.
395,349.—MOWER—Redfield & Hansbro, Glendale, Ogn.
395,460.—OIL-FEED FOR LAMPS—C. Sieghold, Salinas, Cal.
395,680.—ROTARY BOLT—G. Summerton, S. F.
395,411.—CATAMENIAL SACK—Emma A. Wiley, Los Angeles, Cal.
395,642.—WIRE SPLICER AND CUTTER—H. V. Wulbecke, S. F.

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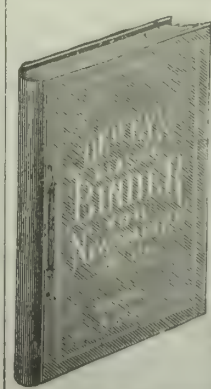
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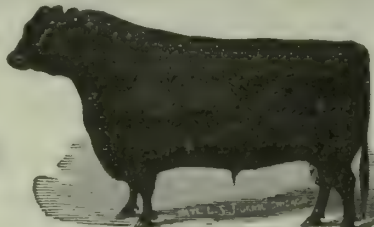
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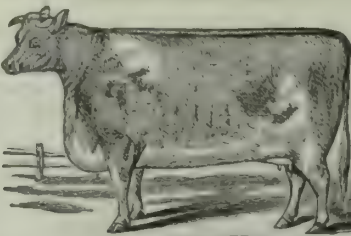
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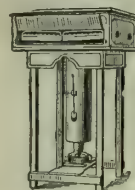
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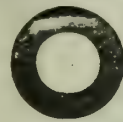
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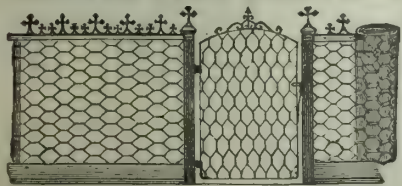
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S. H. MARKET REPORT

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 16, 1889.

The weather the past week has been of the most favorable character for outdoor work, and which, so far as can be ascertained, has been taken advantage of by farmers. In farm products, trading has been only fair. Wheat fluctuated down at the East, with the European markets eased off.

LIVERPOOL, Jan. 16.—Wheat.—Rather more inquiry. 38s 6d@39s; just shipped 38s 6d; nearly due, 38s 9d; cargoes off coast, quiet; on passage, steady; Mark Lane wheat, quiet; French country markets, slow; wheat and flour in Paris, quiet.

Foreign Grain Trade.

LONDON, Jan. 14.—The *Mark Lane Express* says: The wheat market is slow for January, though the firmness is preserved. Retail inquiry has improved. An advance of 6d@7s has occasionally been quoted. Holders of Indian, Russian and South American wheats are firmer than holders of Californian. The finest grades of London makes flour have fallen and are now quoted at 36s. Arrived cargoes have advanced 6d on December's lowest prices. Rice is dearer. American prices for wheat are still too high for business, but a recent decline in New York looks as though the United States, instead of the United Kingdom, was about to give way. Ordinary sorts of flour were 6d cheaper, with less inquiry. Corn is steady; grinding barley 3d higher. At the close to-day flour and wheat regained their steadiness somewhat, but better sorts alone were stable.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt:

	Jan.	Feb.	Mar.	Apr.	May.	June.
Thursday...	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2
Friday...	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2
Saturday...	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2
Monday...	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2
Tuesday...	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2	78 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments:

	O. C.	P. S.	N. D.	Market.
Thursday...	39-40	39 1/2	39-40	Quiet.
Friday...	39-40	39 1/2	39-40	Quiet.
Saturday...	39-40	39 1/2	39-40	Firm.
Monday...	39-40	39 1/2	39-40	Slow.
Tuesday...	39-40	39 1/2	39-40	Slow.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York:

Day.	Jan.	Feb.	May.
Thursday...	98 1/2	100 1/2	104 1/2
Friday...	98 1/2	100 1/2	104 1/2
Saturday...	98 1/2	100 1/2	104 1/2
Monday...	98 1/2	100 1/2	104 1/2
Tuesday...	98 1/2	100 1/2	104 1/2

The closing prices for wheat have been as follows, at Chicago:

Day.	Jan.	Feb.	May.
Thursday...	98 1/2	100 1/2	104 1/2
Friday...	98 1/2	100 1/2	104 1/2
Saturday...	98 1/2	100 1/2	104 1/2
Monday...	98 1/2	100 1/2	104 1/2
Tuesday...	98 1/2	100 1/2	104 1/2

Cause of the Collapse in Wheat.

NEW YORK, Jan. 15.—The failure at Antwerp to-day of Debrassine & Co., who were reported "long" anywhere from 500,000 to 1,000,000 bu. of wheat, has disturbed the Produce Exchange here. They had very few contracts here, but it was said that Chicago merchants held a number of them. May wheat opened at \$1.02 a bushel. On receipt of the news it fell to \$1.01, with a slight rally afterward which brought prices up a fraction. The closing quotations were \$1.01 1/2 asked, \$1.01 1/2 bid. The transactions for the day amounted to 6,300,000 bu., of which May wheat formed about half. There was a sale of three boat-loads No. 1 Dakota hard wheat made at \$1.29 1/2, the sale being to millers. The price attracted a good deal of notice.

The Grain Crop of 1888

WASHINGTON, Jan. 12.—The December report of the Department of Agriculture makes the product of corn 1,937,790,000 bushels, valued on the farm at 34.1c per bushel, against 44.4c for the crop of 1887. The product of 1887 was 27 per cent less in volume than that of 1888. The average yield of the seven great corn States was 33.2 bushels per acre. The wheat crop aggregates 414,868,000 bushels. Average yield 11.1 bushels per acre—winter wheat 11.6 bushels, spring wheat 10.3 bushels—average farm value, 92.6c, against 68.1c for the previous crop. The difference is due more to foreign than to domestic scarcity. The aggregate for oats is 807,737,000 bushels, at 27.8c, against 30c for the crop of 1887. A comparison of aggregate values of shucks presents the corn crop worth \$31,000,000 more than the previous one; wheat, \$74,000,000 more; oats, \$5,000,000 less.

Eastern Wool Market.

BOSTON, Jan. 11.—The figures for the total transactions in wool during the past week will be something of a surprise to the trade generally, for the surface market has presented a rather quiet appearance on most days of the week. The bulk of the transactions has been in foreign wool, principally new Australian to arrive and old on the spot, while in carpet wool there has been a good trade reported. It was noticeable, also, that sales were largely confined to a few houses that are in a position to make sales, but a majority of the dealers reported a very quiet state of affairs. Many have not wool to sell, believing it good policy to hold on to what stock they have. Supplies held by commission houses are also to some extent held off. Sales were 4,247,000 lbs of all kinds.

NEW YORK, Jan. 11.—*Bradstreet's* says: While no marked activity in the wool market is looked for at the beginning of the year, the past two weeks compare favorably with the first fortnight of any recent year. Trade has reached only moderate proportions, but the market continues very firm. Holders of desirable lines are not at all inclined to sell at anything less than present quotations. Buyers, in turn, are still somewhat uncertain as to the course

of values in heavy-weight fabrics, and on that account are keeping out of the market in some measure. Manufacturers, as a rule, are asking five per cent more for their goods than last season, but whether they will be able to force the advance is a question. The stock of wool in various markets is small. This naturally encourages holders, and from all appearances present values will rule for some time to come. The next series of sales at London is likely to be an important factor in determining quotations on this side. At Philadelphia the market has continued quiet; manufacturers are buying moderately for actual requirements, but stocks in first hands are small, and holders insist upon full prices for all offerings. There is no evidence of weakness in any line.

Miscellaneous.

NEW YORK, Jan. 14.—Canned California fruit has been neglected, though prunes have made a decided success.

Lima beans are steady at \$2.75.

Hops are quiet, without any favorable foreign advices. The exports for the week were 3316 bales, mainly back sales. The stock of California is rather crowded by steady receipts. All prices are as before. The extreme price for State best was 21c, and Pacific 20c.

Local Markets.

The following tables give the highest and lowest prices paid on Call during the past week:

	S. S.	B. S.	B. '89.	S. '89.	Jan.
Thursday...	140 1/2	140 1/2	140 1/2	140 1/2	140 1/2
Friday...	140 1/2	140 1/2	140 1/2	140 1/2	140 1/2
Saturday...	140 1/2	140 1/2	140 1/2	140 1/2	140 1/2
Monday...	140 1/2	140 1/2	140 1/2	140 1/2	140 1/2
Tuesday...	140 1/2	140 1/2	140 1/2	140 1/2	140 1/2

BARLEY.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday...	87 1/2	87 1/2	94
Friday...	87 1/2	87 1/2	94
Saturday...	87 1/2	87 1/2	94
Monday...	87 1/2	87 1/2	94
Tuesday...	87 1/2	87 1/2	94

BAGS.—The market is duller, but holders express confidence and do not name below 4 1/2 to 4 3/4, according to quantity, for June-July delivery.

BARLEY.—The market for spot parcels has shown considerable strength for choice parcels, but poorer grades have been in buyers' favor. In futures, trading has been very light, with only slight fluctuations, and confined to two options. At today's Call the following sales are reported to have been made:

Morning Session: Buyer 1889—100 tons, 94 1/2c; 300, 95c; 1200, 95 1/2c. Buyer season: 100 tons, 88 1/2c; 100, 88 1/2c @ cwt.

BUTTER.—The market has ruled weak and unsatisfactorily to the selling interest throughout the week. The receipts have been quite free in excess of the demand, which is confined to immediate wants. At the low prices the consumption of California is increasing.

CHEESE.—The market for old is heavy, but for new mild there is a fair demand. It is claimed that there will be a large output this year.

EGGS.—The market has, under free receipts, ruled weak at low prices. The consumption is very heavy.

FLOUR.—The market is without essential change, although a much weaker tone is reported, with, in some instances, a shading in prices.

WHEAT.—The market for sample parcels has, in sympathy with options, moved down. At the lower bids holders are indifferent sellers, only letting go when compelled by pressing demands. On Call, options have only been fairly dealt in until a decided break in prices brought more buyers into the arena, who took all at the lower prices. The following are the sales reported to have been made today on Call:

Morning Session: Buyer 1889—1800 tons, \$1.51 1/2; 200, \$1.51 1/2; 600, \$1.51. Buyer season—800 tons, \$1.47 1/2; 500, \$1.47 1/2; 300, \$1.47 1/2; 100, \$1.47 1/2 @ cwt. Afternoon Session: Buyer 1889—100 tons, \$1.50 1/2; 300, \$1.50 1/2; 100, \$1.50 1/2; 2200, \$1.50 1/2. Buyer season—1600 tons, \$1.47; 100, \$1.46 1/2; 1800, \$1.46 1/2; 400, \$1.46 1/2. Seller 1889—100 tons, \$1.36 1/2 @ cwt.

[COMMUNICATED.]

Market Information.

Cereals.

The *Mark Lane Express*, Dec. 24th, says: The seasons appear to be getting later all round, and the weather of the first three weeks of December has been far more autumnal than wintery. After a few days, during which the air was cold, with rather severe night frosts, there has been a return of mild and open weather, accompanied by southwesterly gales, bringing a large number of grain-laden vessels into port. The aspect of the country is now very favorable, and the extensive acreage of autumn-sown wheat is exceedingly encouraging; in fact, a more level and healthy growth has seldom gladdened the farmer at Christmas. Threshings of corn are not favored, however, by the prevalent dampness of the air, and the same weather characteristics also reducing demand, it is much to be wished that growers would restrain their energies a little and employ them otherwise than in the direction of market sales. The imperial average is difficult to keep up when there is but a dragging inquiry, and where the bulk of offerings is more or less out of condition, so low a price comes to be quoted that general discouragement is the result. English wheat is fairly underselling most foreign sorts, except the best, and of really good wheat this season there is no superabundance anywhere, so that firm holders can keep up at least a fair price all round. The course of the week's trade in English wheat must be recorded as in buyers' favor, but no important price changes have been effected, and few possessors of samples in a dry state, or weighing over 61 lbs. to the bu., have parted with them at any decline, however small. The inquiry for flour in London and the big cities has been satisfactory, considering the weather and the restricted character of retail inquiry. In the country, however, the sellers have had much apathy to complain of, and an occasional fall of 6d per sack has to be quoted.

In wheat the local market showed continued activity

the past week, with decided fluctuations on Call. It looks as if there has been a strong buying movement on the part of quite a large number of independent operators on Call, and that they have been given all the wheat wanted by an inside bear clique, and with the buying stopped a determined raid was made and the market hammered down several cents a cental. At the decline the bears took in all they could. There is a very general opinion that the lower prices cannot be maintained long. This impression is based on the crops last year in the United States being officially announced at not quite 415,000,000 bushels against over 455,000,000 bushels in 1887—a shortage of over 40,000,000 bushels. It is very generally conceded that the stock in the United States was considerably less on January 1st, 1889, than at the like date in 1888, which if correct must result in better prices later on or before the next season opens.

In this State plowing is very general. The prospects now are of the most flattering character for a large crop, but then no one can form a correct opinion as to what will probably be the outcome, for all depends on the spring rains.

In barley the movements the past week were very light, due to buyers still confining their purchases as much as possible. The supply is not as large as at this time last year, with the grades poorer. From all that can be ascertained the acreage that will be seeded this year will be below an average. This no doubt is due to the low prices that have ruled the past two seasons. Many farmers claim to have lost money by growing barley. It is very generally claimed that an improved demand will obtain in next month for both feed and brewing.

Oats have moved off slowly. The call has come chiefly from large dealers and feeders. The low prices have curtailed the receipts, which have, in turn, created a steadier tone, but then not of sufficient strength to induce holders or consignees to advance their views except on such grades as appear to be in lighter supply.

Corn is without change. Any movements on the part of the bulls are met with free selling offers. The very large crop last year in the United States causes a decided bearish feeling.

Both buckwheat and rye are weak. The demand appears to be chiefly for seed, and that only in a small way.

Fruit.

The market is overstocked with all kinds of oranges. The demand at the low prices is quite free. Shipments out of the State are on a liberal scale. Points up North are reported to be taking more than at this time last year. Foreign oranges are in good supply, but the low prices will check importations.

In lemons and lemons trade is only fair. Receipts are free, with a decided selling pressure reported by dealers.

Heavy receipts of Eastern apples are against the selling interest. Only the more choice, good keepers find quick sale. Oregon continues to send us fair supplies, with some of the more choice fetching over \$1.50 a box.

In dried fruits there is nothing new to report. The demand is slow, but as there is no selling pressure, quotations are virtually unchanged. Although to place a consignment parcel, lower prices than quoted must be accepted, but to buy, full prices would have to be paid. Choice, selected grades, neatly packed of all kinds, are in light supply, but indifferent grades of all kinds, except perhaps apricots, are in heavy stock.

Raisins are without essential change. There is nothing doing, with no improvement looked for until spring trade opens.

Feedstuff.

Hay is weak, under light buying. The available supply of choice to extra choice is reported by those in position to know to be light, but that of poorer grades is said to be heavy, considering the abundance of natural feed. The consumption continues quite free.

In ground feed, there is nothing new to report. The consumption holds up well, considering that the pastures are in the very best possible condition. Considerable ground feed is being sent out of the State—both by water and land.

Live-Stock.

Choice bullocks are fairly steady, but indifferent continue to be in free supply, with prices favoring buyers. Mutton sheep are reported to be firm under moderate selling efforts. Hogs continue firm with the supply barely sufficient to meet the requirements for the block. Heavy importations of green pork, for smoking, are still in order. Small calves are wanted. Milch cows continue scarce and command good prices, ranging from \$25 to \$50 each, according to the age, etc. In horses there is nothing new to report. The demand is said to be of an offish character, but the outlook is favorable for a free call later on in the season.

The market for dressed meat is quoted as follows by slaughterers to butchers (to get the price of stock on foot, take off one-third of the price for stall and grain fed and one-half from the price of grass fed, that is animals running at large).

HOGS.—On foot, grain fed, 6 1/2 @ 6 3/4 @ lb.; dressed, 9 @ 9 1/2 @ lb.; soft, 5 1/2 @ 6 1/4 @ lb.; dressed, 8 @ 8 1/2 @ lb. Stock hogs, 4 @ 5 @ lb.

BEEF.—Stall fed, 8 @ — c @ lb.; grass fed, extra, 7 @ 7 1/2 @ lb.; first quality, 6 @ 7 c @ lb.; second quality 4 1/2 @ 6 @ lb.; third quality, 4 @ 5 c @ lb.; fourth, 3 @ 4 c @ lb.

VEAL.—Small, 8 @ 10 c @ lb.; large, 6 @ 8 c @ lb. MUTTON.—Wethers, 7 @ 7 1/2 c @ lb.; ewes, 6 1/2 @ 7 c @ lb.; lamb, spring, 7 @ 9 c @ lb.

Vegetables.

Receipts of spring vegetables from the southern part of the State are increasing, causing a lower range of values. The frosts of the past few days have injured the more mature garden truck in the bay counties.

Potatoes continue irregular, with prices changing from day to day, being governed more by receipts than they were a few months ago. New potatoes are increasing in quantity and also in quality. The crop this year, unless we have high water in the spring, promises to be light. A large quantity of the potatoes received are said to be more or less defective, which causes the best conditioned to have a fair demand.

Onions are moving fairly free, that is, those in good condition and suitable for filling distant orders.

Poor onions are in oversupply, and hard to place, except at low and unsatisfactory prices.

Miscellaneous.

California poultry has ruled fairly steady throughout the week, notwithstanding a strong selling pressure at Eastern.

In hops there is nothing new to report. The supply on the coast is very light.

In wools the market is about bare. It is claimed that the spring clip will come on a hungry market, which causes dealers to look for good prices. It is claimed that the clip this year will be better than that of 1888.

Nuts are heavy under fair supplies and a light demand. Honey is scarce and high, with the market dull but an improved inquiry looked for.

From the *Commercial News* of Jan. 15th, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port	190,018	251,761
On the way to neighboring ports	36,457	58,591
In port, disengaged	25,007	90,489
In port, engaged for wheat	37,877	42,57

Totals

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to Jan. 8th, the following are the exports from this port:

	1889.	1888.
Wheat, cts.	8,221,684	4,876,047
Flour, bbls.	391,603	371,621
Barley, cts.	1,74,031	378,96

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations while very poor grades sell less than the lower quotations.

	BEANS AND PEAS.	Soft shell.	Hard shell.
Bayo, cts.	2 00 @ 2 75	14 @ 15	14 @ 15
Butter	2 50 @ 3 00	8 @ 10	8 @ 10
Pea	1 85 @ 2 05	2 @ 2 00	2 @ 2 00
Red	2 00 @ 2 40	4 @ 5	4 @ 5
Pink	2 25 @ 2 50	10 @ 12	10 @ 12
Large White	1 80 @ 2 05	5 @ 8	5 @ 8
Small White	3 25 @ 3 50	40 @ 50	40 @ 50
Fid. Peas, hkye	1 80 @ 1 50	4 @ 5	4 @ 5
do green	1 60 @ 1 75	2 @ 3	2 @ 3
do Niles	1 25 @ 1 45	4 @ 5	4 @ 5

	POTATOES.
Early Rose	40 @ 50
Jersey Blues	4 @ 5
Jersey Reds	25 @ 45
Burbanks	40 @ 1 10
Cutty Cove	50 @ 70
Sweet	1 00 @ 1 40

	CHICORY.
California	5 @ 6
German	6 @ 7

	DAIRY PRODUCE, ETC.
Butter	10 @ 12
Cal. Com. to fair, 120 @	3 80 @ 4 50
do good to choice	2 20 @ 3 00
do Fancy brands	2 40 @ 3 00
do picked	15 @ 20
do in rolls	17 @ 20

	POULTRY AND GAME.
Hens, doz.	6 00 @ 7 50
Roosters	5 50 @ 6 00
Broilers	3 80 @ 4 50
Ducks, tame	7 00 @ 8 00
Geese, pair	2 00 @ 2 50
Turkeys, Gobbs	13 @ 15
Turkeys, Hens	14 @ 16
do dressed	15 @ 18
California, lbs.	10 @ 14
Eastern style	12 @ 14

	FEED.
Bran, ton	14 00 @ 16 00
Feedmeal	25 00 @ 28 00
Cr'd Barley	15 00 @ 18 00
Midlings	15 00 @ 17 00
Oil Cake Meal	30 00 @ 31 00

	HAY.
Wheat, per ton 100 @	14 00
Wheat and Oats 100 @	13 00
Wild Oats	10 00 @ 12 00
Clover	11 00 @ 13 00
Tame Oats	10 00 @ 13 00
Barley	10 00 @ 11 00
Barley and Oats 100 @	12 00
Alfalfa	8 00 @ 10 00
Straw bale	55 @ 65

do fancy birds	24 @	20	Geese, pair.....	2 50 @	2 50
do pickled....	15 @	20	do Goslings...	— @	—
Eastern in tubs.	17½ @	20	Turkeys, Gobl'r.	13 @	15
do in rolls.	— @	—	Turkeys, Hen.	14 @	16

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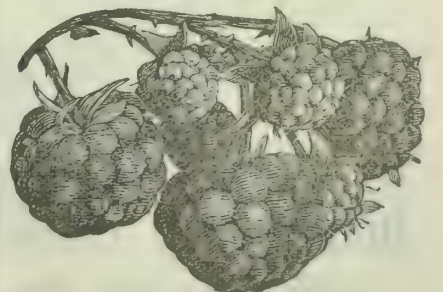
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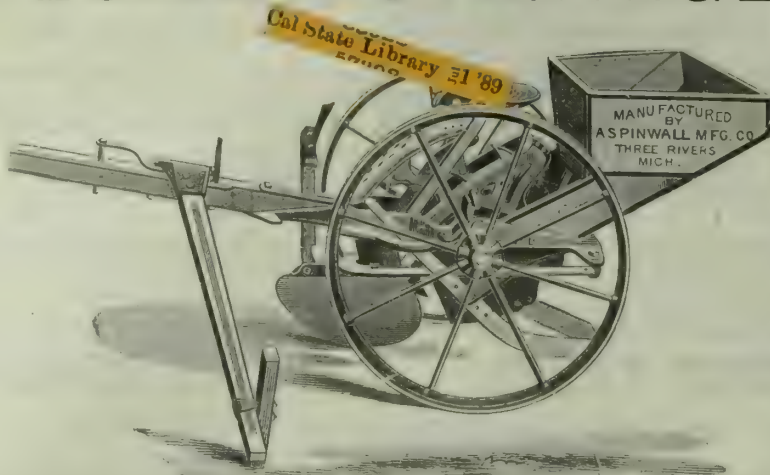
No farming tool has ever done more accurate and rapid work, and we strongly question whether any implement (character of work and quantity being taken into consideration) has proven itself to be of such financial advantage to the farmer. We make strong claims for our Potato Planter, knowing that we can fulfill every one of them.

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From 5 to 8 acres per day can be planted, and THE ENTIRE WORK of marking, furrowing, dropping and covering is done in a single operation.

The Planter is well made and very durable, and with proper care will last many years.

There is no great strain on any of its parts, being entirely free from any cog gear and fast motion. The speed of the mechanism of the Planter is no faster than the movement of the ground wheel.

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Leaves San Francisco

— ON —

Tuesday, Jan. 29, 1889

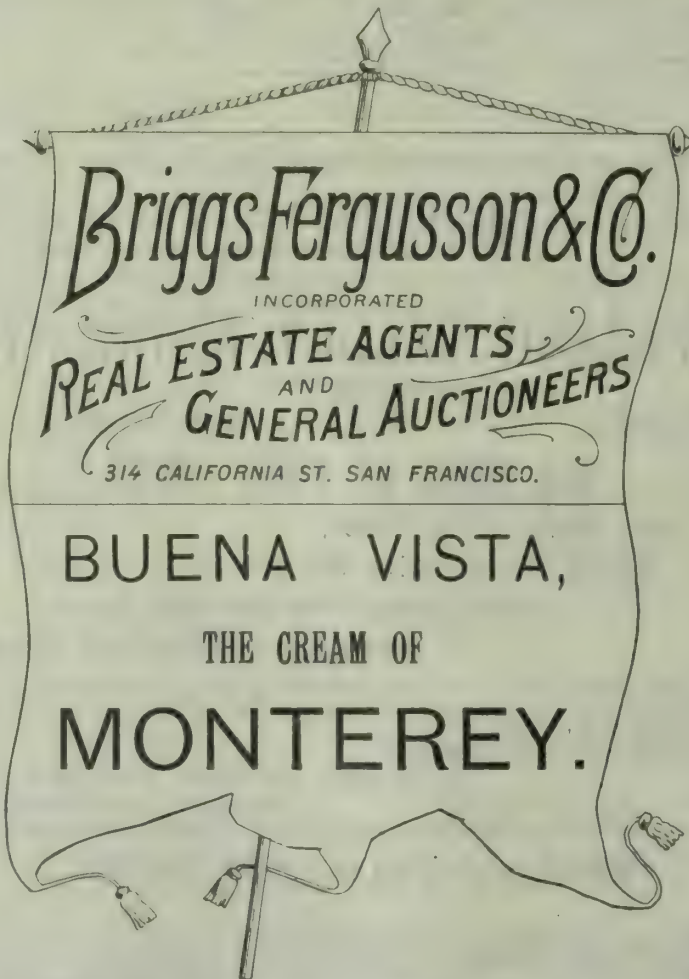
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PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXVII.—No. 4.

SAN FRANCISCO, SATURDAY, JANUARY 26, 1889.

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A Percheron Victory.

It will please many readers of the RURAL who are breeding Percherons and their grades to see the portrait of a horse which won a notable victory for his breed at the great display of the American Horse Show in Chicago in November last.

La Ferte is the property of the well-known breeder and importer, M. W. Dunham of Wayne, Illinois. He is described by the *Breeders' Gazette* as "certainly one of the very grandest of living show horses," and that leading journal gives other interesting information concerning the animal which we shall make use of in this connection. It seems that the uniformly excellent quality of La Ferte's colts has demonstrated his value as a sire to such an extent that Mr. Dunham has used him for the past two seasons to breed upon his valuable Brilliant mares, and this coupling has proved a remarkably successful combination, the produce being marvels of excellence, inheriting from their sire that long, graceful neck, high carriage and superb action that has won for him the title, bestowed by many good judges, of "the handsomest draft horse in the world."

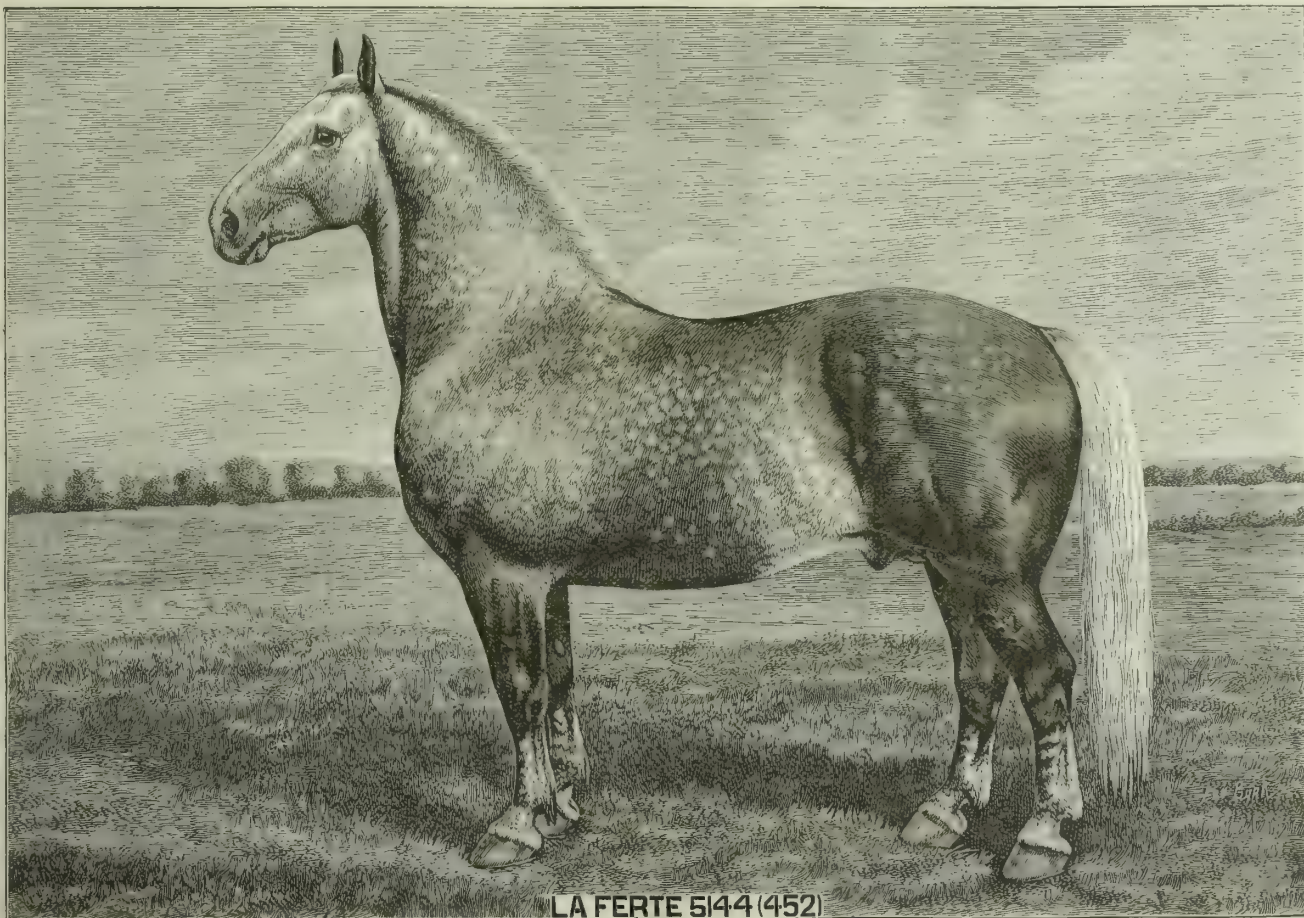
"La Ferte" was shown at the great Live-Stock Show held at Chicago, November 13-24, 1888, and awarded first prize in the strongest ring of Percherons seen in this country since 1886; but a far higher honor awaited him in the subsequent "Battle of the Breeds." It was when arrayed against the pick of the Clydesdale and English Shire studs of both continents that this grand representative of the great Percheron race vindicated the honor and glory of his breed by winning the Grand Championship prize as best draft stallion of any breed.

This was certainly a substantial victory for the Percherons, and is naturally enough quoted as emphasizing the verdict given at the World's Fair at New Orleans in 1885, when the same honors were awarded to "Brilliant" 1271 (755), as well as that of 1881, when a similar contest was fought at Chicago and the prize awarded to that famous show horse "Vidocq" 483 (732), also of the Oaklawn stud.

It is also a noticeable fact that the winner in the three-year-old-mare class at the late Chicago show was a daughter of "La Ferte" out of a mare by "Brilliant," and it is with very pardonable pride that Mr. Dunham may point to the fact that, at this last great show, horses

from the Oaklawn stable, both Percherons and French Coach, gained first prize in every class in which they were entered.

As La Ferte has won such honors both as a show horse and a sire, it will be of interest to note that his sire Philibert (760) of famous reputation traces his descent from the celebrated Arab Gallipoli, through a long line of illustrious sires. On the maternal side, La Ferte's pedigree runs into the Brilliant strain, he being a nephew of the great Brilliant 1271 (755).



WINNER OF SWEEPSTAKES FOR AGED STALLIONS OF ANY DRAFT BREED AT CHICAGO, 1888.

La Ferte stands 16½ hands high, weighs 2040 pounds, was foaled in France in 1881, and is, as the engraving shows, a beautiful dapple gray. He is described as a showy horse and a gallant mover.

The spoilsmen may rant and bluster against civil-service reform, and may curse the law, but one thing is sure, they don't dare to vote against it in Congress. When the legislative appropriation bill was under discussion in the House the other day, a motion was made to strike out the paragraph for the enforcement of the civil-service law. That motion was defeated by 25 yeas to 138 nays. This is a significant vote. It shows that the average politician is afraid to go in the face of public opinion. This law so far has been executed in a very lukewarm manner; it should be vigorously enforced. There is no one single thing that will do as much to give us clean elections as to take the offices out of politics. When a man finds that his chances for office depend upon his fitness and capacity rather than doubtful political work, he will begin to lose interest in wire-pulling and running with the machine.

California and the Irrigation Surveys.

That Governor Waterman keeps a good lookout on matters affecting the industrial interests of the State is shown by a telegraphed note from Sacramento to one of the city dailies. It seems that important correspondence has been in progress between the Governor's office and the Interior Department at Washington relative to irrigating the arid lands of California. On Dec. 10th Gov. Waterman wrote

A Bad Outlook for Labor.

During the recent investigation of "Trusts" by a committee of the New York Senate, some curious facts were elicited. The secretary of the Sugar Trust testified that this organization is now running half a dozen refineries, and has ten dead ones. The representative of the Cotton Bagging Trust declared that a trust was merely "a sympathetic movement," and stated that there was machinery enough in this country to turn out bagging sufficient to cover a crop and a half of cotton. When asked if the monopoly pensioned the laborers when it closed a mill, he answered that the "sympathetic movement did not extend to laborers." When asked as to the average wages, he replied, 30 to 90 cents a day. That before the monopoly was established the price of bagging ranged from six to seven cents per yard. It is now 21 cents. That, in short, wages were reduced, and the price of the article nearly doubled in value. Now here is something for laborers and consumers to think about. What is true of these trusts is true of all. They are all off the same piece and tend to the same results.

The New York *Post*, commenting on the revelations of this committee, said the profit to which any industry is rightfully en-

to Vilas asking that California might have the benefit of the Congressional appropriation for the surveys relative to the storage of water for irrigation. He described the scarcity of rain over a large area of California and showed how 9,000,000 acres of arid lands might be made prolific and immensely valuable.

A letter was received from the United States Geological Survey this week informing Gov. Waterman that California need have no fear that she would be neglected. The necessary topographical surveys will be made as quickly as possible, and with proper Congressional aid the Governor's idea of the irrigation of the arid lands of California will be made practicable.

This will be important information to many who have been recently filing on Government lands in anticipation of the Government irrigation work, and to the public generally.

Now, if the Geological Survey will take hold energetically of its legal duty to classify public lands according to agricultural adaptations, we shall have some public scientific work of direct and immediate practical value, not that its work has not been valuable but it needs rounding out as is contemplated by law.

titled is "the return that would be yielded under the influence of absolutely free competition, under which nine-tenths of mankind must always earn a living." This is a great deal for the *Post* to say, for it has always fought the anti-monopoly movement. Now that the mass of the people are no longer protected by absolutely free competition, the outlook is very serious if not portentous of some sort of social revolution.

The last right-of-way case having been disposed of in the courts at San Diego, the graders for the Cuyamaca road have been transferred from the canyon to the city, to close the gap in the road-bed, which will take them about one week. There will then be 15 miles of road graded to Lakeside, and by another six weeks it is reported that the rails and ties will be laid to that point.

SOME of the large land-holders of Southern Humboldt county are considering the advisability of dividing their large holdings into smaller tracts, to be leased for dairy purposes.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

A Trip North and South.

EDITORS PRESS:—It was one of my recent pleasures to spend two weeks in the State of Rhode Island, and nothing in that delightful visit impressed me so strongly as the material prosperity of the people.

To the eye of a Californian, Nature, in that locality, appears very niggardly of her bounty. The soil is sterility itself; the climate anything but encouraging to those who must provide against its rigors and its changes, none of which seem to be favorable to the inhabitants; and yet those people look so prosperous and their homes are so comfortable. There stand the old houses in which generation after generation have been born and reared, in outward appearance exactly as they were forty years ago, and within, a queer but harmonious admixture of antique styles and modern convenience—a fair type of a people who have crossed the sterling characteristics of their Puritan ancestry with the progressive spirit of this age.

A daily excursion for two weeks extends one's observation over a great part of the State. As I went about in factories and shops, schools, churches, libraries and general society, inspecting industrial, moral and social institutions, from the trim and orderly streets of its picturesque chief city, Providence—which, by the way, well merits its claim to be the cleanest city on this continent—to the smaller towns whose varied manufactures supply the diversity of interests so essential to the intelligence of a community, as well as their means of sustenance, and to the old farm-houses where successive generations have lived and died in peaceful thrift, everywhere, it was a pleasure to see universal prosperity.

The tireless industry of the people must account for it; for everybody is busy, but everybody has more or less leisure. There is nowhere that grinding poverty that precludes rest or diversion, but that systematic habit of industry which utilizes every hour to some purpose and counts the hours as resources not to be wasted, any more than other means which have a more definite market value. There is a general intellectual activity very gratifying to see; for while there are no loafers, there is leisure for mental improvement and an appreciation of such opportunities. There the Chautauqua methods are bearing full fruitage, and it is not uncommon to find mistress and maid of the same household members of the same C. L. S. C., or even a grandmother of eighty reading the prescribed course in her quiet home, in order to keep up intelligently with the younger branches of her family.

The rapid growth and consequent business opportunities of the West and South have been more attractive to the young men than the more certain but tardy success of New England life, and so it follows that a large proportion of single women are left to work out their own devices and their own development. It must be admitted, in common parlance, that they make a good job of it. I casually made a remark about the number of single women with good bank accounts in the presence of a banker. He responded promptly: "You would think so if you could see our bank-books."

With our Western wholesale ideas I had supposed that the profit of farming in these days depended largely on the use of agricultural machinery. While the Yankee mind seizes with avidity all contrivances to save labor, Nature has placed her own limitations on their use. In those little rock-strewn fields the Western farmers' machinery would be sadly out of place. When I asked, "How do these people extract a living from this scanty soil by the slow processes of hand labor, when with our greater facilities in the West we can only do it by the use of mechanical help?" the sensible old farmer whom I addressed replied: "Well, there was a time when it looked as if farming in Rhode Island must be given up; but as the Granges began to educate the people, they began to put their heads together and study markets, know what was wanted and produce what the market demanded instead of what their grandfathers raised. Then farming began to look up, and now the farmer does as well as other folks."

So I perceived that the Eastern farmers' machinery was not entirely a combination of rods and wheels and horse-power, but a combination of brains and man-power.

At the South.

From Rhode Island I went south and spent the next two weeks in a State whose natural conditions were so like our own that I felt myself almost at home. Its bright, sunny skies and balmy atmosphere, its prolific soil and genial climate, were all suggestive of California. The late cotton-fields were still white with the fleecy crop, and there I saw the festive daisy "mid de cotton and de corn," but I saw few combinations there of either brains or mechanical forces. The fields were lightly scratched with a half grown plow and everything was done with the air of a "lick and a promise" that some day it might be better done; the crops were poor and the people poorer. The prevalent discontent that always accompanies poverty was generally apparent.

My duties kept me flitting about on railroad trains, where men talk politics if they talk anything, and then, to my surprise, I heard the

name of Rhode Island spoken with most unaccountable animosity, and its prosperity, which to my unsophisticated understanding had appeared its legitimate reward of merit, was quoted as indubitable evidence of unpardonable sins. I lent my ears to instruction; if Rhode Island has been so wicked, I must know all about it, and I heard the oft-told tales of the campaign, how its great manufacturing interests, its accumulated wealth, its dense population, bloated bondholders, bursting banks and all that sort of thing, were outrages on the devoted and suffering South, as it was often said, "gouged out of the poor South." How I longed to tell them to gouge their own rich soil awhile, to utilize their own abundant and neglected resources, to practice half the economy and thrift of much-envied Rhode Island, and their own State might in a short time as far outstrip her prosperity as it now outmeasures her area.

D. J. SPENCER

The Rabbit Plague.

EDITORS PRESS:—What typhoons and blizzards have been to Kansas the rabbit plague is ripening to in California.

It will finally dawn on the people of this State that the rabbit pest is not to be subdued by bounties on the head or drives conducted hip-skip over the country. We feel certain that we speak within bounds in saying that, in spite of the extortionate taxes paid in this county, the amount of loss by jack-rabbits exceeds the taxes by a considerable sum. And the loss falls wholly on one class of citizens—those who now pay nearly all the taxes.

So great will be the loss if the pest increases as rapidly as it has during the past two or three years that real estate values will be seriously affected, and the farmer, on whom all classes depend for their incomes, will be ruined. It is a fact that many who have orchards and alfalfa lose every year on those alone four to ten times the amount of their taxes, not to mention the loss in grain-fields and in wild feed.

Fencing is the remedy in our opinion; fencing by sections and townships, opening the inclosed fields to dogs and drives. This remedy would be effectual. To do it, a combination of landholders is as necessary as in obtaining water for irrigation, and it may be the difficulties that lie in the way can be overcome by legislation.

Here again the interests of the speculator and cultivator are at opposite poles. It is held that property is not a representative factor in elections and legislation in this country; yet it is as apparent as the other fact that majorities do not rule. Tulare is almost wholly a farming community. At present it happens to be represented by a full delegation in the Legislature, and it remains to be seen whether the industry or the wealth invested in speculation and in property that shirks its taxes is the controlling element.

It is a short-sighted policy in the land-speculator to contend against the farmer, on whose success the development of the country depends, but the record of water legislation over a long period of years confirms the belief that the class who have most to gain by the prosperity of the State are unwilling to contribute anything in the way of taxes toward removing the obstacles to successful farming.

In the Australian provinces the rabbit-pest, after a loss of many million dollars, is receiving legislative action, and hundreds of miles of rabbit-proof fences are being built by the State, and a standing reward of \$100,000 is offered for a destructive invention that will destroy them effectually.

Fencing is resorted to as a final remedy, and to this we must come at last in California.

Few people outside the farming districts have any conception of the rapid increase of rabbits, and the great loss inflicted on farmers. I have seen hundreds of them running all over the open field by dogs scattering them out of the patches of weeds. What I would suggest in the way of legislation would be that the State should authorize the formation of fence districts to be formed by, say a two-thirds vote from settlers in a township; that the State extend its credit to furnish the fencing, the land-owners having ten years in which to pay for it, including a low rate of interest, the lands being made security.

E. M. D.

Tulare, Jan. 13th.

HORTICULTURE.

Growing Cuthbert Raspberries.

EDITORS PRESS:—It would be interesting to some, at least, of your readers to learn definitely of Mr. McCann's method of handling his Cuthbert raspberries. While they do fairly well for us, we can not speak so highly of them as he does, owing probably to our lack of knowledge of the best way to handle them.—D., Carpinteria.

EDITORS PRESS:—I have received so many letters from amateur fruit-growers upon this and kindred topics, that I am glad to be enabled to respond to them collectively, through your columns, at least upon the subject of raspberry-growing in general and the Cuthbert in particular. And pardon me if I state in the beginning that upon this subj. "I think I am scriptural," as an old theological debater used to say, since for many years I have given to the culture of small fruits especial and undivided attention, studying their natures and their needs, with all the light the experience of other grow-

ers could give, added to that knowledge which practical and daily study and work among the plants themselves could only make me master of, while a genuine love and I might almost say fascination for this branch of agriculture has made my work a pleasure instead of a burden.

To successfully cultivate the raspberry (of any variety) it is necessary to know in the first place that the plant is a biennial—that is, one which produces its plants one season and bears its fruits in the following one, after which time these plants die off, to give place to others newly sprung from "suckers," as in all the family of red raspberries, or from tip growing roots as the "Gregg," "Souhegan," and all members of the "black cap" raspberries perpetuate themselves.

It will be readily understood that these old plants, having had their day, did their work and died—became henceforth only dead, useless, cumbering brush which must be cut away and cleared off, to give the new plants the necessary room to thrive, and to permit their proper cultivation. And in many cases, especially from strong and thrifty varieties like the Cuthbert, these suckers or new plants that have sprung up on all sides, to replace the old, must be thinned out and transplanted if more berries are needed, or treated as weeds and dug under if the remaining plants are expected to do their best. "Too thick to thrive" is an adage that finds its best application to growing plants, and first-class results can never be obtained from small fruits under any such conditions. They need room to grow to perfection, with spaces for circulation of light and air between them.

Planting and Cultivation.

In my plantation the Cuthberts are planted in rows five feet apart, with four or five strong plants to the stool, and these three feet apart in the rows. This way of planting them allows nearly all the necessary cultivation to be done by horse-power—a very essential requisite to success in a business like this, where the expenses for labor are necessarily so constant, and the prices so high as they are in California.

The plants are set out in long regular rows, with a "turn-road" or place for turning the horse and plow around at both ends of the row.

The first cultivation is a thorough plowing between the rows so as to break up the beaten track made there by the tread of the pickers all summer. This allows the ground to absorb all the rain that falls, instead of having it run off along the little irrigation ditches used if necessary in summer-time to water the berries.

However, if there is a heavy winter crop of fruit upon the vines at that time, as is generally the case with us, we have to wait till that crop is over before beginning our plowing, as the horse in passing through would break and injure the vines.

Meanwhile there is enough to do to keep one busy till this can be done. The mulching of coarse, strawy manure (which is the finishing of our last spring's work upon the vines) can now be forked in along the rows where neither plow nor cultivator can reach; the vines trimmed back to three or four feet in height, thinned out where necessary, and all old dead plants not already removed taken out; the new plants tied to stakes or grown between double trellises, as preferred, and all made ready for the plowing.

We use for our work among the berries one strong, steady horse, which seems to understand the business as well as his driver does, and injures no plants by capering from side to side between the rows. Besides this, the whiffletree attached to the plow is as short as possible, with patent guards over the ends where the traces hook in, so as to prevent their catching and breaking the vines as they pass by them.

The plow is followed by a harrow and drag, made especially for our work, long and narrow; and after this work is done the rest of our cultivation throughout the season is done by a Planet Jr. cultivator, which is kept going whenever the weeds show their heads.

This preparation leaves the soil in a fine spongy condition that retains all the moisture it gets, and in some seasons does away entirely with the need of any irrigation.

Mulching.

The last finishing touch to our spring work is the heavy mulching put around the roots of the vines, for the raspberries as a race have their roots very near the surface and are easily injured by the hot sun playing upon them. This top dressing has also the great advantage of keeping down the weeds throughout the season, if applied at the proper time.

The above remarks may be of service to those growing all sorts of small fruits, as in the main, the treatment is about the same for all, and the same rule holds good also that proper care and cultivation given to the vines in the spring will surely be rewarded by bounteous returns when fruiting-time comes round—always provided that time and care have been bestowed upon a plant worthy of such cultivation.

We are often asked, as visitors walk through our grounds, "How do you accomplish the feat of having ripe berries upon your vines at this season of the year (January), when everybody else's vines are bare of berries?"

We invariably reply: "It is not we who do it. If you wish to learn the secret, ask the Cuthberts themselves! It is the variety we grow that makes all the difference in the world. Look there at those Hansels! They have received the very same care and cultivation, but they are leafless and berryless, too, while the

Cuthbert is full of blossoms and ripe berries in sufficient quantities for us to have shipped them to San Francisco every day since the first day of November, and we are shipping still."

"Can it be something in your location, or your nearness to the sea?"

"A little, perhaps, in both, and in that we have purposely chosen a southeastern slope, where the sun lies warm all day, for our raspberries to grow in; but with all that, the old Antwerps, the Hansels and other varieties are leafless; and only the Cuthbert is green and fresh and full of blossoms, as if it were a June morning instead of a midwinter day in January, thereby proving the truth of the claim of its Eastern originator from whom we have our stock, that this truly 'Queen of the Market' berry stands not only summer's drouth and heat, but winter's cold, better than any other known variety."

"I see you have a regular little orchard growing among your berries," observes also our critical visitor. "Yes. Tell it not in Gath, however, or I shall have all the orchardists in the State down on me as a disgrace to their order! But there is method in even this seeming madness of mine, since I am a small fruit-grower, not an orchardist, and my raspberries like a little shade, and do much better among the trees than out of them; and I am experimenting now upon tree washes that will kill the 'varmints' on the trees and not hurt the berry bushes under them. Any advice upon this subject from any quarter will be thankfully received, yet I can truly say my fruit grown upon these trees seems to be no worse than my neighbor's, whose ground is bare."

"Well, you seem to make a success of it, anyway," returns my friend. "What's the secret of it all?"

"Simply this and nothing more," I answer. "I give my business my undivided thought and care. I love my plants, and I almost believe my plants love me, and we do our best for each other!"

L. U. MCCANN.

Santa Cruz, Cal.

A Question About Apples.

EDITORS PRESS:—I would like to ask those readers of the PRESS who live in the Sierras, at an altitude of 3000 to 4000 feet, in that belt where they have a little snow every winter, and the mercury goes sometimes to eight degrees Fahr. or say to zero, what they have observed to be the best winter apples for said situation—the best for flavor first, and after that for size, beauty, keeping qualities, hardness, etc.?

W.

THE GARDEN.

Raising Vegetables.

EDITORS PRESS:—The experience of one person in one part of California is of very little value to any one in another part of the State, so far as raising vegetables is concerned. The difference in climate and soil is great, and unless one is familiar with both in the places written from, any article may be misleading. But if experience is wanted and will do even a little good, let it be given.

Potatoes.—In this vicinity potatoes are planted on the hills where there is little danger from frosts all the way from November to January, and in the valley from December to March or even April. It greatly depends on location. We ourselves plant in February when most danger from frost is past, but some close by us plant during the last of November and take the risk. Plants are of course cut down once or twice, or more, by frosts, and I do not think anything is gained. Plant as is done in the East; there are several "best methods." The "red" potatoes do not bear well on heavy upland soil; they all go to tops.

Lettuce may be sown any time after the first rains, light sandy soil giving best results. If you allow it to self-sow, good, except for weeds!

Turnips.—Always plant a bed of the small, round, white turnips and plant early, like lettuce. Both of these two are treated in just the same way as they are in the East. If that is not known, the best way is to buy some of the various books written to enlighten amateurs.

Carrots give best results when planted rather late, say, for this vicinity, in April. Planted in February, as some do, they run greatly to seed, which is to a considerable extent avoided by planting as late as possible, some persons even not putting in the seed till the very last of April. A word as to seed: The carrots from which you expect to take seed should be left in the ground two years and the seed then be gathered. Carrots from first year seed run greatly to seed, and consequently a large proportion of them are useless. We have raised very large carrots here, one grown on this place measuring 12 inches in diameter.

Peas.—Sow thickly in drills two or three inches deep, in December to February. Not so much need of bushing here as in the East. In protected localities they are planted in December, but for most ground January 15th is early enough. Two days ago I saw some peas a foot or more high, uninjured by the frost, and for a few nights it has been down to 28° and 27°; but they were in the small back yard of a Chinaman's hut and not much exposed. Onions close by were about four inches high.

If people want to get rid of the Chinese, why do they not assist a little in that work by plant-

ing gardens of their own and not relying on Chinese vegetable peddlers? Plant a garden of your own and rejoice that you have permission to reap direct from Mother Nature. Most of us want to be rich; then why do not most of us try to appreciate our privileges? Not one in a hundred lives within sight of the innumerable blessings and feastings to be got out of a few square yards of earth, especially here in California. Go to work and bless yourself!

Haywards, Cal.

A SON OF THE SOIL.

THE FIELD.

Rabbit-Driving in Fresno County.

From a graphic and entertaining article in last week's *Expositor* we condense the following account of a rabbit-drive:

On the train between Fresno and Madera the reporter asked a fellow-traveler:

"Many jackrabbits in the country?"

"Thousands and thousands of them. They're the worst pests we have; but the drivers are doing much toward thinning them out. You can talk about phylloxera, but turn loose a family of six jackrabbits with merely normal digestive apparatus in a 120-acre vineyard, and they will never let up until the vineyard is destroyed. The jackrabbit is a communist. He is also a polygamist. He believes in propagation, and, let me tell you, he makes a success of his belief. The jackrabbit is a prolific breeder. There is only about two months in the year when mother jackrabbit is exempt from the cares of maternity. The jackrabbit increased rapidly in numbers in the lower San Joaquin valley after the vigorous warfare was made on the coyote. The destruction of the coyote meant prosperity to the rabbit, and he thrived and grew in great numbers. Having got rid of the coyotes only to multiply the rabbit crop, the vineyardists, fruitmen and ranchers invented—for I claim that it is an invention—the drive to depopulate the country of rabbits. Thousands of rabbits are killed annually, and still thousands and thousands, as I have said, remain to propagate the species."

Alighting from the early morning train at Madera, and entering the office of the Yosemite hotel, the *Expositor* man was astonished at the number of clubs which rested against the walls. There were clubs of all sizes and lengths, crooked clubs and straight clubs, rough clubs and smooth clubs, light clubs and heavy clubs; in fact, it was as varied and complete a collection of clubs as was ever seen outside the habitation of a missionary-fed chief of the Fiji islands.

"What are all these clubs for?" he asked of the night clerk.

"Rabbit drive to-morrow. We keep them in stock for our customers. There are two exhibitions which attract large audiences in Fresno county—the circus and a rabbit-drive. I think of the two shows the drive draws the biggest crowd. Men, women, children and dogs come from all parts of the county. The day could not be more rigorously observed if declared a holiday by President or Governor."

The morning was cold, raw and disagreeable, but it did not dampen the enthusiasm. By 9 o'clock the streets were astir with people. All classes and conditions were represented. Horsemen with jingling spurs rode furiously up and down the street. Ladies and gentlemen in carriages; Mexicans in heavy lumbering wagons, drawn by diminutive mustangs; boys on horseback, many of the animals carrying a triple load, babies in mothers' arms, and youths and lunch-baskets in the bottom of vehicles, added to the novelty of the scene.

It was 10 o'clock when the cavalcade started, crossed the railroad and wended its way across a lovely section of country carpeted with a rich growth of young grain.

One two-horse vehicle contained 12 persons, the majority being women and children, all carrying clubs. Several ladies on horseback were passed. One of the most unique parties was a header-bed filled to overflowing with men, boys and girls. The conveyance had come all the way from Fresno Flats, a distance of 45 miles, to join in the fun and be in at the killing.

After Chapman's ranch was passed, many small, moving objects were discerned on the southern horizon. "That's the Borden contingent," remarked one.

About 11 o'clock the corral was reached. Here Ed McCardle, the marshal of the drive, and 20 assistants, apportioned the forces for

The Drive.

The larger part of the cavalcade deployed to the right, and a small contingent was sent to the left. These forces were to guard the wings. At least 250 boys and men, armed with clubs, were stationed in a field containing 640 acres. The field was rough and irregular, with bunches of dead salt-grass, which were alive with rabbits. The reporter, armed with a hoe handle, was one of the army. The men and boys having been placed at regular intervals, the order was given to advance, and the line moved forward. From every bunch of salt-grass a rabbit jumped up. Often a rabbit would start at one end of the line and run nearly its entire length, a shower of clubs greeting it at every jump. Frequently one would run a few yards straight ahead, then suddenly turn and double back, passing through the line on a keen jump. The field was thoroughly beaten and a wire

division-fence reached. In this large tract of land not a rabbit had been killed.

What had seemed, three quarters of an hour before, to be moving specks on the distant horizon now appeared to be horsemen, wagons, and people on foot, formed in two wings, and the plan of the drive was evident to the observant spectator.

Let us leave these two lines gradually coming closer together and visit the corral, where the final slaughter is to take place.

The corral proper was made of wire netting about five feet high. The dimensions of the inclosure were 50x80 feet. A chute, also made of wire netting, of the same height as the corral, and four feet wide, extended out into the field 100 feet. On either side of the entrance to the chute was a wire netting five feet high, stretching out in the form of a V for full a quarter of a mile, the corral being at the point. Once in this V-shaped pen, and pressed by men, boys, horsemen and teams, the rabbits had no other recourse than to enter the chute and thence the corral.

The First Rabbit Killed.

The army of men, when they reached the division fence of the section, halted to permit the two wings, each a mile long, to close up. As they waited for this result, rabbits were as thick as insects in a Ute buffalo robe during the summer. Down the line came scurrying a big buck. He bounded over the bunches of salt-grass with the ease and grace of a deer, his ears laid well back on his shoulders. Clubs flew thick and fast. But the faster the missiles came the greater was the speed of the rabbit. He was bent on getting away. He was to receive the attention of but one more club. If he escaped this, liberty was his. W. A. Harris wielded the club. It went forth like lightning. True to its aim, it took the buck just behind the ear.

"He curled up on the floor, and subsequent proceedings interested him no more."

The rabbit weighed 14 pounds and was the biggest one killed during the day.

By this time the wings were close together. The ground seemed to be moving, so thick were the rabbits. Like waves of the ocean, they beat against the nettings. Hundreds escaped through the lines, and hundreds more met death in their struggles for liberty. Slowly the immense gathering of people and vehicles closed in upon the frightened animals. The chute was crowded with their scampering forms. Finally the wire gate was shut. In the four corners of the corral there were piles of rabbits three and four feet deep. Many of them scampered over their frightened companions and jumped the wire netting, but the crowd, which gathered about the corral, made their efforts to escape futile. Frequently one would jump into the air and fall dead on his companions, death resulting from fright. Their cries resembled those made by children in distress, and were piteous to hear. From each of the corners came clouds of fur which covered the lady spectators.

Before the slaughter took place, somebody threw a collie dog into the corral. It was difficult to tell which was the most frightened, the dog or the rabbits. He seemed lost, and finally lay down on a pile of rabbits, gasping for breath.

Finally Marshal McCardle threw an armful of pick handles into the inclosure. Immediately a score of boys scaled the netting, and the slaughter began. The rabbits made no effort to defend themselves. In 20 minutes the massacre was over; 1657 rabbits were killed in the corral, and over 700 on the outside, making in all nearly 2500.

Eight sections of land were worked over.

Two hundred teams, 70 horsemen and 2000 people participated in the drive.

Mr. Hughes, at the conclusion of the killing, furnished the party with a lunch.

The rabbits were shipped to San Francisco, where they will be served at fashionable restaurants and made into tomatoes.

THE VINEYARD.

The Mysterious Vine Disease.

Hon. J. de Barth Shorb has sent the following letter, which contains some interesting information, to the Los Angeles County Board of Supervisors, which has not as yet taken any action in the matter:

As you are aware, for several years past a disease has made its appearance among the vineyards of this section, which has in many instances proved very destructive and in some cases has entirely destroyed them. Many theories were advanced as to the cause of this disease. The Viticultural Commission sent some men to examine into it. The opinion of those consulted was to the effect that it was due to climatic influences, abnormal degrees of temperature in summer and winter months, excess of moisture, etc., and when these causes changed the results would change with them. The climatic theory most generally entertained was possibly based on the opinion of French scientists, who have tried to explain the cause of a disease existing in France known there as "apoplexy," and which seems to be aggravated by certain climatic causes. The disease in some respects only resembles the one here, but not enough to confound the judgment of any close observer. The climatic theory is entirely

disproved by our examinations, and we now think it is directly due to some form of fungi which like some deadly mildew settles on the leaves and by destroying their functions, which are to the economy of a plant the same as the heart, lungs and stomach are to our organisms, starves the vines to death. Many spores of fungi have been observed and recorded, but which form is doing the deadly work cannot at this stage of the examination be accurately or scientifically determined. In order to proceed with this examination with the hope of arriving at the correct solution before the vines are again in leaf, we have built a small conservatory where by the application of artificial heat the vines will remain in leaf all winter, giving us the opportunity of transplanting the different forms of fungi already observed and carefully note their development and effect on the vines. Where temperature and moisture can be given at will, the study will be rendered easier and the deductions more accurate. The Viticultural Commission, at its last semi-annual meeting, by resolution appointed me a committee of one to proceed with the examination as commenced, and will defray expenses of the small conservatory and also the salary of Mr. Dowlen, the botanical expert. The fact that this work is going on under my supervision has called forth a heavy correspondence, so much so as to necessitate engaging a correspondent who from present appearance will have his time entirely occupied. While the conservatory already finished will be of great service, yet we cannot find room enough for the different varieties of vines that are to be found especially subject to the influence of the disease, and those which so far have almost entirely escaped it or shown so stubborn a resistance as to be considered almost exempt. We should have double the capacity for growing the vines, and, if we found it advisable, to engage temporarily the services of other scientific experts to have the means of paying them. The Viticultural Commission, while anxious to do all they can in the discovery of the disease, is limited in its appropriation, and I feel they have done all they should do in the premises. It is only by thorough scientific work that accurate or reliable conclusions can be reached in such cases as we have now in hand. It was only by exhaustive investigation that Pasteur found the cause and remedy for the ravages of the disease among the silkworms of France. Millions were destroyed before the cause was known, but millions were saved afterward by accurate knowledge. I feel confident that with what we now know and with what we may discover during the winter's work as above indicated, we will know the character of the common enemy. It matters not how veiled in mystery this disease is, it must give up its secret to the powerful lens of the microscope which we have now in use, and this discovered, the chemist will soon supply the needed remedy and save the vineyards of our country. Whatever appropriation you in your judgment may think proper to make will be satisfactory to me. I want no compensation for my own time and services, for as one of the Horticultural Commissioners my time belongs to that office, unpaid as it is.

The New Viticultural Headquarters.

The new establishment of the State Viticultural Commission at Platt's hall, on Montgomery street, was formally opened on Tuesday, Jan. 15th. As has already been described in the *RURAL*, the headquarters include spacious offices and a large exhibition and audience room; also apartments for a wine exchange and a cafe, where certain brands of California wine can be purchased by the bottle. The following account of the opening is condensed from the *Call*:

Among those present on the platform were: Vice-President de Turk of Santa Rosa, who occupied the chair in the absence of the president, Charles A. Wetmore; besides Mayor E. B. Pond, Arpad Haraszthy; L. J. Rose, the commissioner from Los Angeles; George Humann of Napa, Charles Bandtschu, Professor Denman, and Commissioner Krug from Napa.

In appropriate remarks the chairman welcomed all, and then briefly dwelt upon the object of the Board of Viticulture in establishing the wine exchange. He explained how it would prove of incalculable benefit as an advertising medium to the wine industry of California.

At the exchange now opened can be sampled, at a nominal cost, the different wines made in this State, thus benefiting us abroad in many ways. Mr. de Turk announced that the committee under whose supervision the exchange would be managed is Arpad Haraszthy, on behalf of the merchants; I. Landseberger, for the brokers; and H. W. Crabb of Oakville, Napa, on behalf of the producers.

Mayor Pond addressed the meeting, and expressed the hope that the exhibit would prove a great success. He eulogized the movement as one that would tend toward the encouragement of one of the greatest of California's industries.

A School for Wine-Makers.

Arpad Haraszthy, L. J. Rose, Charles Bandtschu, Commissioner Krug, Prof. Denman and Chief Viticultural Officer Wheeler also addressed the meeting, speaking in glowing terms of the undertaking.

Mr. Wheeler, in concluding his address, stated that there was much prejudice against California wines which would have to be overcome, and there was much to be learned by the

wine-makers of this State before they were perfect. He declared that the object of the exchange would be to enable the wine-makers to see their faults, and thus it will be a matter with themselves as to the improvement in the quality of their wines.

THE DAIRY.

Danish Co-operative Dairying.

As the Danish butter factories are famous for their butter product, which is sent in cans to all parts of the world, especially to the tropical countries where local dairying is not practiced, the following information will be interesting:

The population of Denmark is 2,000,000, and the number of cows is 900,000—a proportion of cows to population unimaginable in England, amounting to nearly one to every other person. The cows are, however, divided among 150,000 owners, which is an average of six cows to each.

Denmark is distinguished by the production of butter. In 1882 it produced 19,000,000 pounds, which by 1886 had risen to 32,000,000. Last year (1887) the butter production had risen to 45,000,000 pounds. This singular prosperity in the manufacture is attributed to the invention of cream separators and to co-operation.

In 1880 many of the dairies were organized on the co-operative principle. There are at present said to be about 200 dairies of this kind in Denmark, using on the average the milk of 5000 to 6000 cows a day. Consul Inglis, in his very practical report, gives the co-operative rules of the Ousted dairy as an example of the arrangement.

1. A loan is established, for which all are security—one for all and all for each, in proportion to the number of cows each has signed for. Such loans amount to 21,000 kroner (about 26 cents) to be paid back in 12 years. When the loan is paid each member owns a proportionate share in the dairy.

2. Should a supplier of milk die, his account is settled, or a successor can enter on the same terms as his predecessor.

If a member wishes to withdraw before the expiration of five years, he pays 10 kroner per cow and sacrifices any further share in the dairy. If he withdraws after five years, his portion is paid him, less one-half.

Each member pays an entrance fee of 10 kroner (10s 10d) per cow whose milk he undertakes to supply.

3. The milk is collected at the cost of the dairy. The carts drive only along the high-roads, and the milk must be brought from by-roads to meet the carts.

4. The milk must be delivered in a pure, unadulterated state, without any disagreeable taste. The standard of payment is that 28 pounds of milk shall make one pound of salable butter.

5. The skimmed and churned milk is returned to the suppliers at a small charge.

6. Each supplier must keep his milk cool when not fetched immediately after milking. Two measures of milk must not be mixed together before both are properly cooled. The milking must be done with dry hands. The cow's udder must be carefully wiped, and the milk at once strained and not left standing in the cow-sheds. Milking-pails must be kept quite clean. No mustiness must be found during milking-time.

7. Winter feeding must consist of one to two pounds of linseed cake and at least three pounds of bran and oats to each cow daily. Should a change of feeding be necessary, the directors of the dairy have power to order it. No turnip or carrot stalks must be used, neither seeds from rye, peas or vetches.

8. Four times a year the directors shall witness a feeding and milking of the cows. Bleatings must not be delivered the first four days after calving. Milk from sick cows must not be delivered. In doubtful cases the veterinary surgeon must be called in.

9. In the event of inspection the veterinary surgeon must be consulted.

10. Milk that is sour or has a bad taste, or which is received in cans not properly cleaned, the dairyman has power to reject.

11. The general meeting governs. Each shareholder has one vote without regard to the number of his cows. Women are allowed to vote when responsible shareholders.

UTILIZING DEAD ANIMALS.—The best thing to do with dead animals, large or small, is to bury them beneath a big pile of sod or mold, and thus convert them into a valuable fertilizer. If the animal is large, it may be best to cut it into pieces, but this is not necessary. After selecting the place for the compost bed, which should be far away from the dwelling, cattle-pen, stable, or any spring or well of water that is used, the carcass should be covered all over with a good layer of lime to help the decomposition and prevent smell. The refuse charcoal and dust from a coal kiln is much better than lime. The carcass must be covered so deeply as to prevent the escape of any smell, and so prevent the dogs from pulling it out or burrowing to it. In a few months there will be some rich compost that will fairly make the corn laugh and revel in greenness.—*Rural Messenger*.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

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Official Endorsement.

In consideration of a certain contract entered into this day between Dewey & Co., publishers, and the California Patron Publishing Company of San Francisco for the publication of a weekly Grange edition of the PACIFIC RURAL PRESS and the California Patron, as a monthly, resolved that the Executive Committee of the State Grange of California hereby designate and endorse the PACIFIC RURAL PRESS as the weekly organ and the California Patron as the monthly organ of the State Grange of California.

W. L. OVERHISER,
Master of State Grange of Cal.

A. T. DEWEY, Sec'y S. G. of Cal.

San Francisco, Cal., Jan. 11, 1889.

Triple Installation—Lodi, Woodbridge and Stockton.

EDITORS PRESS:—Everybody and their friends were invited to be at Lodi on the 16th at the joint installation of the above Granges. A Granger has some of the habits of an old toper; when he gets a taste of the good things, it is hard to choke him off.

Be it known, there is no county in the State that surpasses San Joaquin in several respects. Her lands are level, soil rich and deep, and plenty of timber for ordinary purposes. She is one of the leading wheat-growing counties, and for proof of this, one has only to be at her mills, warehouses or docks in the early part of the day when the long files of four, six and eight-animal teams are bringing in the golden grain. There is quite a strife among the teamsters to see who shall get in first, on account of delays in unloading.

Stockton is very fortunate in having shipping facilities independent of the railroad. A slough from the San Joaquin river makes up to the city, with water of sufficient depth for barges and steamboats. Large warehouses are on the banks, and wheat can be shipped at any state of the weather or stage of the water.

Lodi is the famous watermelon section where they are planted in hundred-acre tracts. The growers have one of their own number in the market below to dispose of their crop. No more are sent to market than can be disposed of each day, and thereby a glut is prevented. Lodi has a peculiar sandy soil well adapted for tree and vine growing. I believe that at no distant day it will be the home of the lemon and the orange. Its soil and conditions appear to be similar to those of Pomona, where the orange is so successfully grown.

The Worthy Master of the State Grange was there in all his glory, driving his high-stepping mares, bringing three sisters from his household, two of whom were installed officers of Stockton Grange.

The attendance was large. All left their cares and troubles at home, so there was nothing but sunshine present. After some preliminary work, a class of three young ladies was instructed in the Third and Fourth Degrees by the writer. A recess was declared for greeting and interchange of thought while the sisters spread one of their characteristic feasts.

If any one is looking for a good cook, I would advise him to send in his application to one of these gatherings. And I believe he could be accommodated still further by getting some one to stay by them on a rainy day.

It took three long tables to accommodate those present. All were well supplied, and an abundance of good things left. The nimble hands of the sisters soon cleared the tables of their dishes and contents, while the brothers folded the tables and laid them away to await another Harvest Feast.

The Master called to order and introduced Bro. Overhiser as the installing officer. The writer and two other brothers whose names

he cannot just now recall were selected as assistants. The writer introduced the officers of Stockton Grange, while the other two brothers introduced the officers of their respective Granges. Bro. Overhiser installed the officers in a dignified and impressive manner, and all seemed to appreciate the responsibility they were about to assume.

Installation being over, speeches were called for from some of the older members. The two telling speeches were from Bro. Thos. McConnell and his gifted daughter Annie.

It may perhaps be said that some brothers join the Grange for personal aggrandizement. Can this be said of such men as McConnell, Webster, Coulter, Steele, Blackwood, Logan and scores of others? Most of those named have ample means and could afford to be independent of the Grange. They spend dollars for the Grange where they get back cents. The Grange owes a debt of gratitude to Webster and Steele which it can never repay. While the former was wearing out his brains and body to make the Patron an acceptable Grange paper, the latter was throwing in the \$20 pieces to lubricate the frictional parts with a recklessness that knew no bounds.

Several were called on and spoke words of encouragement. Sister Ashley gave us a kind talk, which seemed to come from the very fountain of goodness. This triple installation will long be remembered by me as one of the sunny days of my Grange life.

Father Gurnsey, with over 80 years resting on him, was again elected Chaplain. I hope they will continue to elect the venerable brother as long as he can raise his eyes and hands toward heaven, looking for that blessing which we so much need.

I vote joint installations a success. Let us have more of them. I am willing to contribute my one talent, and will polish it to its highest capacity.

D. F.

Temescal Grange.

Annual Program for Exercises in 1889 on the First Saturday Evening of Each Month.

At Temescal Grange last Saturday afternoon, the question of the Australian system of voting was debated favorably, but no vote or recommendation adopted.

Following the plan adopted successfully by subordinate Granges in Massachusetts, Sister Dewey, Worthy Lecturer, reported the following program of exercises for the coming year:

JANUARY—The Australian system of voting.
FEBRUARY—Pruning, grafting and seed-sowing.

MARCH—Hired help on the farm, indoors and out.

APRIL—Gardening, including both vegetables and flowers.

MAY—Picnics—illustrated.

JUNE—Camping and recreation.

JULY—Harvesting grains, etc.

AUGUST—Horticulture, fruits.

SEPTEMBER—Agricultural fairs.

OCTOBER—Convicts; their treatment while in prison and the needed education to enable them to earn an honest living after they are released.

NOVEMBER—Practical education, including hints on cooking, etc.

DECEMBER—Literary exercises appropriate for the Grange birthday anniversary.

No discussion was had on the matter, and it will come up for further action and probably different Patrons appointed to lead each month's discussion. We think it is a plan that can be adopted to much advantage by many Granges.

Sister Newkom (sister of Worthy Flora) with another sister was present from Yuba City Grange, and participated in the proceedings, to the pleasure of the members of the Grange.

The Railroad Taxes.

At the last meeting of the State Grange, Bro. J. V. Webster offered resolutions concerning the enactment of a law by which the back taxes could be collected from the railway company, though the first assessment has been declared illegal by the courts. Mr. Webster's resolutions prevailed, and he was requested by the Executive Committee of the State Grange to draft a bill which would cover the required ground. This he has done in the form of a general Act which is now before the Legislature, a copy of which will be found in another column. Its object is to legalize a reassessment of property where an assessment has been declared invalid, and providing that where a partial payment has been made on the tax first levied, it may be credited. This applies specially to the railroad taxes which have been in dispute since 1880. The Southern Pacific Railroad Company has protested against former assessments, but expressed its willingness to pay what it claims to be a just proportion. No compromise could be effected, the Board of Equalization being in doubt as to its power to make a new assessment.

THANKS to the goodly number of Grange correspondents who have favored us this week.

Our Visiting Master.

We have not heard from Worthy Master Carr of Wisconsin since our last issue, but presume he is enjoying himself with Bro. and Sister Carr at Santa Rosa. We are glad to note that Worthy Master Overhiser has invited our State's guest to visit at "Oak Home Farm," near Stockton, during his tarrying in California, and we hope Bro. Carr will be able to avail himself of the invitation. He will find much of interest at Oak Home and other hospitable homes of the good Patrons of San Joaquin valley.

We would consider it a fortunate thing if his visit to San Joaquin valley could be made the occasion of an open Grange meeting at Stockton for exchanging views on subjects relating to the Grange, the farm and farm life in Wisconsin and other Eastern States and on our own coast; also for conference and the discussion of important measures already introduced before our Legislature regarding the interests of farmers and people generally in our State.

All Patrons and farmers should be wide awake to help whatever good and true men there are in our Legislature to accomplish such enactments as will be for the permanent welfare and advantage of the people, and to denounce and show up any attempts to curse our State with bad legislation, as has occurred too often at our past sessions.

The Legislature meets, fortunately, we think, but once in two years. The session during which legislative members draw pay is also judiciously confined to the short term of 60 days, so that the action of farmers should be immediate relating to proposed legislation.

We hope to hear from Bro. Carr and his friends, and be able to state that he will favor our Patrons in different parts of the State by speaking at district or county meetings.

LATER.—Since the above was put in type we have received a personal letter from W. M., Carr, dated Santa Rosa, January 20th, promising to visit our office this week with his brother, J. G. Carr (who started with him from Wisconsin to visit Prof. Ezra S. Carr, who is in frail health at Pasadena), and Bro. Nelson and Hannah Carr from Santa Rosa. They all intend visiting E. M. Carr, near San Luis Obispo, and then proceed to visit Prof. E. S. and Jeannie C. Carr at Pasadena. The letter closes with the following, which we take the liberty of publishing for the many friends of our brothers and sisters:

Now, my dear brother, nothing would give me more pleasure than to comply with your request and visit some of your Granges; but my time is limited to two months from home, and my object in coming is to see my brothers once more and that we may all assemble together at Pasadena (five of us) and have, probably, a farewell visit. * * * If any meetings could be arranged at or near Tempton, in San Luis Obispo county, for the last of this week, or anywhere within 50 miles of Los Angeles, next week or week after, I would meet the appointments without any expense to the State Grange of California, and do all I could to build up our Order. My dear brother, if you could have been with us at Pomona Grange meeting, Santa Rosa, January 16th, and witnessed the scene of three brothers meeting after 35 years of separation, you could have seen tear-drops brushed from cheeks seldom used to tears. I had to ask the W. M. to introduce us. The G. K. had informed us that Nelson Carr and wife were in the hall, but we could not distinguish them. It was a grandly rare and fraternal meeting in which all the Grange members participated, coming forward and giving us the Patron's grip and words of cheer.

This grand Order has helped many a weary traveler on his way, and is worth a hundred times more than its cost.

We are delighted with California, especially Santa Rosa and Bennett valley; also, the warm-hearted brothers and sisters that we have met in your State. Yours fraternally,
S. C. CARR, M. Wis. S. Grange.

Improving Election Laws.

MESSRS. EDITORS:—I, for one, approve the proposed Australian plan for voting, as at least worthy of trial. In addition, I propose that there be incorporated in said plan the following provisions which I have had in mind for a long time:

1st. That county officers, State officers, and national officers shall be voted for at separate and distinct elections.

2d. That the State elections shall occur in October, say first Tuesday of every even-numbered year, and the county elections on the same day of October in every odd-numbered year.

3d. That for every general or special election the judges, inspectors, and clerks shall serve without pay, except necessary expenses for meals only, while so employed.

4th. That these officers and clerks of election shall be chosen by the people of each precinct out of the voters of such precinct, under such regulations as will secure to each political party a due share of said offices.

5th. That the "minority plan" of voting for representatives as in use in Illinois, be adopted.

As to the first and second of the above paragraphs, it is sufficient to say that any plan

which will tend to make the choice of State and county officers less a matter of national politics is a step in the right direction. Separating State and county elections is advised for two reasons, viz., to remove county elections from the influence of State politics and rings, which are frequently overwhelming, and because it is exceedingly difficult for a voter to inform himself properly of the characters of the candidates where there is a large number to be voted for at any one time.

The principal objection to this plan, to many persons, is the cost of election. This is obviated to the extent of about nine-tenths by causing the election board to serve without pay, but this is not the only reason for this proposal. In every precinct are persons who make it their business to intrigue for these positions for the sake of \$3 or \$4 to be gained (of course some worthy citizens are occasionally appointed). Moreover, that these dollars are being scrambled for has a direct tendency to prevent gentlemen from seeking such positions.

Now, as to the proposal to make election boards elective, it is directly in the line of republicanism to bring the power closer and closer to the people, and tends to lessen fraud directly by making it almost certain that a better class of men will be selected. It is surely a curious spectacle that while we are so exceedingly punctilious as to the kind of paper and the way of writing and folding the ballot, and all that, we, for the space of a few hours, give abundant opportunities for all kinds of fraud; and then, after the frauds are consummated, we very carefully look and bar all doors and put big seals upon them, as though afraid that the frauds might be found out. Surely, surely there is wide room for improvement.

As to the election board serving without pay, I need only point to the fact that it is an everyday occurrence to see a dozen men forced to leave their work, without pay, to attend a criminal suit in the justice's court, often on the most frivolous pretexts.

Have we a Legislature with vim enough to put through an actual reform such as this?
W. S. PROSSER.

Shingletown, Cal., Jan. 22, 1889.

A proposed election law, submitted by the Federated Trades, will be found on page 84 of this issue. Patrons, read it, discuss in the Grange, and urge its merits upon the members of the Legislature.

Questions for Discussion.

In our columns to-day will be found several subjects of live interest for discussion in Grange meetings, including the bill for re-assessment of taxes declared invalid, the bill for an improved system for voting, which embraces the essential features of the so-called Australian system, now working also favorably in Massachusetts and one or two more States. The bill for dividing the State appropriation to agricultural fairs equally between live-stock and other exhibitors will be published later. By referring to the daily press from day to day, other proposed legislation will be observed.

Taken altogether, we think there would be much to be gained and nothing to lose if every Grange in the State would call an open conference meeting for all the farmers in the community to join in exchanging views and sending recommendations to their members in the Legislature.

Any recommendations adopted should also be sent to Judge S. T. Coulter, chairman of the Legislative Committee of the State Grange. Also, to the PRESS for publication.

Individuals as well as Granges can also give aid and support by corresponding with our Legislative Committee, and members of the Senate and Assembly at Sacramento.

Grange Elections.

AMERICAN RIVER.—Carl Halverson, M.; Jas. Cornell, Jr., O.; N. H. Lauridsen, L.; Harry Williamson, S.; A. A. Harris, A. S.; J. E. Beach, O.; C. Cornell, T.; Mary Cox, Sec.; J. C. Brewster, G. K.; Mrs. D. Taylor, P.; Mrs. A. Bryan, F.; Mrs. F. Kane, Ceres; Martha Oriswell, L. A. S.; N. H. Lauridsen, Trustee; Ettie Cornell, Organist.

GRASS VALLEY.—S. L. Richards, M.; Thos. N. Paine, O.; Mrs. E. Bree, L.; H. H. Hanson, S.; A. G. Peterson, A. S.; Mrs. Lily Crase, C.; Albert Mattoon, T.; J. W. De Golia, Sec.; Robert Berriman, G. K.; Mrs. Mary Shrikamp, P.; Miss Clara Kleine, F.; Mrs. S. L. Richards, Ceres; Mrs. Mary Peterson, L. A. S.

Installations.

Watsonville.....February 16

San Joaquin County Pomona.....February 28

NOTE.—The Secretaries of Granges are requested to forward reports of all election and other matters of interest relating to their Granges and the Order.

To Correspondents and Agents,

All correspondents of the California Patron are invited to continue their efforts for the weekly Grange edition of the RURAL PRESS and the monthly of the California Patron. We hope that all will with new zeal help us make the two issues the best representatives of Grange periodicals in the United States.

All agents are invited to continue their efforts in behalf of the official weekly and monthly organs of the Grange.

From Bro. D. Woodman.

MESSRS. EDITORS:—We had a very fine view of the recent eclipse from this place, though the sun was obscured by fog or clouds through the day, except during that interesting phenomenon. The weather is pleasant, with occasionally a light frost.

The fields are green, feed is good and all kinds of stock are doing well. This is a great stock region, and immense quantities of alfalfa are raised here, and land is from \$100 to \$300 per acre. Bakersfield is "booming." A \$100,000 hotel is nearly completed. It is said to be one of the finest in the State outside of San Francisco.

We went over to Tulare on the 5th, and were present at the installation of the officers of that Grange. Although a stranger in a strange land, we found friends and a home among Patrons there, as we always do whenever we meet them. Tulare is a strong Grange possessing much talent. Some of its members reside 25 miles away, and yet they find their way to the Grange. They believe in and practice that grand principle, that "whatever we attempt to do we should strive to do well." As others have very likely written about that interesting session, we will not enter into details, but only say we were very much pleased with our visit there and the acquaintances there formed.

We stopped over night at the pleasant home of Bro. Talbot, and the next at Bro. Merritt's. On the morning of the 7th, Bro. Merritt took us out some 12 miles east of his residence through great fields of wheat, some of which have a vigorous growth, while others are being sown. Here at the foothills is located the Berry wheat ranch, of 4000 acres, and the object of our visit here was to see the working of his wonderful steam plow and seeder. But we were too late. It had done its work and was reposing upon its laurels. Here was a machine that had been doing the work of 50 men and 100 horses for weeks together. It is a 30-horse power traction engine, so arranged as to plow, sow and finish up a strip 20 feet wide as it passes along. Its capacity is 30 to 100 acres every 24 hours. It runs night and day, and is fed on straw and water. When the harvest is ready, a harvester and thresher is attached in front of this iron horse, and away through the wheat it goes, cutting a swath 40 feet wide, delivering the grain in sacks, and what straw it needs for fuel near the furnace. The capacity of the machine is 110 acres per day, yielding about 2000 bushels. In harvest it is not run in the night-time. It will run over quite soft places, as the tires of its driving wheels are four feet wide. Strong headlights in the front and rear furnish light in the night-time, and a canvas top protects the workmen from sun or rain. It is claimed that with this machine wheat can be raised and put on the cars for half a cent per pound. The owner says he can do anything with this machine a horse team can except swim.

Now Dakota claims to have "the largest wheat farm," of 11,000 acres. On it are used 45 gang-plows of two plows each, 45 gang-harrows, 44 broadcast sowers, 65 self-binding harvesters, 6 threshers requiring 30 men each. In putting in this 11,000 acres, 600 horses or mules are required, besides a small army of men and an immense amount of machinery, to say nothing about board of man and beast, wear of machinery, etc.; while up here in quiet Tulare five men with their iron horse and a few teams will put in harvest and thresh 4000 acres. Now where is cold Dakota with her horses and their riders, with her blizzards thrown in, as compared with California? For the "bigness" of things and its "possibilities," we believe California is unrivaled by any other State in the Union or the world at large. Can any other State boast of such a wonderful agricultural implement? Can its equal be found in this wide world of ours? We do not believe it can. We would like to know where the largest wheat farm in California is located, its area, manner of cultivation, etc. Who can tell us? D. WOODMAN.

Bakersfield, Jan. 10.

The San Joaquin Joint Installation.

MESSRS. EDITORS:—The joint installation of Stockton, Woodbridge and Lodi Granges held in Lodi hall on the 16th inst. was a complete success. It was a fine day, and there was a large attendance from all the Granges in the county. The Worthy Master of the State Grange, Bro. Overhiser; the Worthy Lecturer of the State Grange, Bro. Flint; the Hon. Thos. McConnell, a member of the Executive Committee; and Sister Annie McConnell of Elk Grove Grange, were present, and all acquiesced in having a very pleasant and enjoyable meeting.

Lodi, Jan. 17.

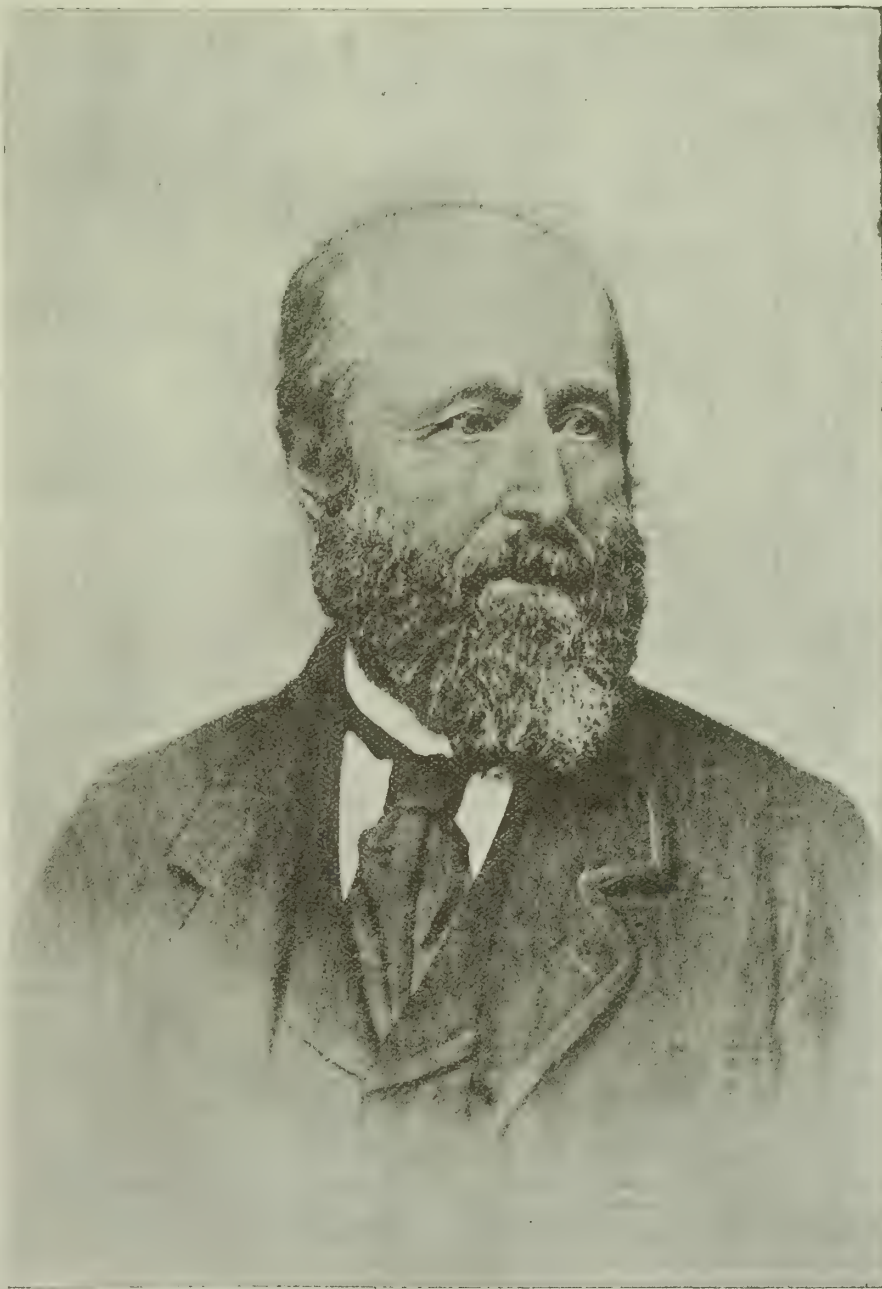
J. D. HUFFMAN.

One of Oregon's Past Masters.

Adam Randolph Shipley, Past Master of the Oregon State Grange, was born in Fayette county, Pa., in 1826. He is a descendant of a Shipley who came from England with Lord Baltimore to survey the province of Maryland. His mother was a Randolph of New Jersey, also English. When he was nine years old his parents moved to Central Ohio, near Mt. Vernon, where he grew up, working on the farm summers and attending the academy winters. For a time he was a teacher in that institution, and subsequently studied law in the office of Judge Hurd, having for fellow-students Wm. Windham and Dan Narton, since Senators from Minnesota. He continued his law studies in Cincinnati under Alphonso Taft, since Attorney-General of the United States. In 1852 he crossed the plains to Portland, Or., experiencing a full share of the hardships and trials of a pioneer. In 1854 he became

fully be said of him: "He has always lived a pure and honorable life."

Mr. Shipley has always been an ardent lover of the Grange, and has probably done as much gratuitous work in it as any other member in Oregon. He was a charter member of Oswego Grange and its first Master, and was once Master of this subordinate Grange, the Pomona Grange and the State Grange all at the same time. He became Master of the State Grange in its time of deepest trouble, when, by injudicious transactions, it was overwhelmed with debts for which it was supposed the Master could be held responsible. Worthy Past Master Cyrus had passed many weary days and sleepless nights working and planning, but the task was herculean. The night of Mr. Shipley's installation will never be forgotten by those present. Hope had well-nigh fled, and tears were in the eyes of many unused to weep. A hush was over all, for the Grange, for which so much had been sacrificed, seemed about to die. One more effort was made, and every brother there pledged his



BRO. A. R. SHIPLEY, PAST MASTER OREGON STATE GRANGE.

postmaster of Portland, a position he held for over seven years. He was also engaged in the wholesale and retail book and stationery business, and was a member of the first City Council of Portland. In that year he married Miss Celinda E. Hines, preceptress of Portland Academy. In 1862 his health failed from close attention to business, and, thinking farm life would be more healthful, he purchased a tract of land nine miles south of Portland and two miles from Oswego and began the laborious task of making a home in the country. Here he still resides, and is dividing the farm among his children as they wish to settle for themselves. He has made great efforts and sacrifices to make farm life pleasant, preferring that his sons should be farmers if they would be happy in that occupation. He has long been a member of the M. E. Church, and in politics he had always been a Democrat until the organization of the Prohibition party. Since then he has worked and voted with that party. He has always taken an active part in everything which he thought calculated to promote the welfare of society, and what was so truthfully said of his successor, Judge Boise, may as truth-

fully be said of him: "He has always lived a pure and honorable life."

Grange for a certain sum of money, and agreed himself to be responsible for its payment. Many of them paid it out of their own pockets and said nothing to their Granges about it.

The Grange was saved, but it was bankrupt. Nothing but the greatest tact, business ability and unceasing labor could bring order out of the chaos in which it was involved, and the Oregon State Grange owes its existence to-day to Past Master Cyrus, Past Master Shipley and others of the tried and true, who have for their reward a consciousness of duty well performed.

SISTER C. E. KINNEY, now at San Diego, does not write hopefully of the Grange cause in that district, but alludes to the work of Sister Flora Kimball and other friends in terms of praise for sustaining National Grange so well for 11 years of its active life.

MAGNOLIA GRANGE installs its officers to day.

GRASS VALLEY GRANGE installed its officers on the 14th inst.

Reassessment of Property.

An Act to amend the Political Code by adding a new section thereto in relation to reassessment of property in cases where a former assessment is invalid—

The People of the State of California, represented in Senate and Assembly, do enact as follows:

Sec. 1. There is hereby added to the Political Code a new section, to be numbered three thousand six hundred and seventy-two and a half, as follows:

3672½. Every tax except poll tax levied after the year 1879, which is invalid by reason of any error or irregularity in the assessment and which has not been fully paid, shall be *releaved* and the property affected reassessed by the proper officers or Board of Equalization to the amount to which and upon the estate or to the person or corporation to whom or to which such tax ought first to have been levied and assessed; such reassessment to be made by the proper officers at the time and in the manner by law provided for making assessments on like property, the collectors of such tax to allow as credits thereon any partial payments made on the tax as at first levied. In any action brought for the collection of such taxes and reassessments, the court shall allow an attorney's fee of 15 per cent on the amount of any judgment rendered, which shall be less such partial payments.

Sec. 2. This Act shall take effect from and after its passage.

The following we believe to be the law in the case of *reassessments*:

When an assessment has been declared invalid, illegal or void by reason of any defect in the proceedings had in an attempt to levy, assess or collect a tax or assessment, and not because of the illegality of the tax itself, the liability both as to the person and property sought to be charged continues, and the tax may be enforced through another assessment.

It is within the power of the Legislature to require a reassessment in all cases where the authority conferred in making the original assessment has been defectively or irregularly executed.

The reassessment, whenever made, must have reference to the value of the property at the time the original assessment was made, as well as the law which authorized it.

Letter-Notes, Etc.

A. T. Dewey, Sec. S. G.—Dear Sir and Brother:—I have just received a telegram from Bro. F. B. Logan to go to Salinas City and reorganize the Grange there immediately. I am suffering from the cold contracted on my last trip to the city, and it pains me not to respond; but I am not able to take the journey at this time. Perhaps you can find some one to go in my place. Yours fraternally, I. C. STEELE.

Pescadero, Jan. 20, 1889.

We sincerely regret the indisposition of a brother so generously disposed to labor and contribute for the success of our Order. With the consciousness of many good deeds and sacrifices for his brothers and the welfare of our cause, we hope his health and strength will soon be recuperated for further deeds of honor to himself and benefit to the P. of H. and humanity in general.

Bennett Valley Grange.

MESSRS. EDITORS:—Bennett Valley Grange installed its newly elected officers January 5th, with the exception of Ceres and the Assistant Steward. Bro. Jonathan Roberts, Worthy Master of the Sonoma County Pomona Grange, acted as installing officer, assisted by Bro. George Rogers of Santa Rosa Grange.

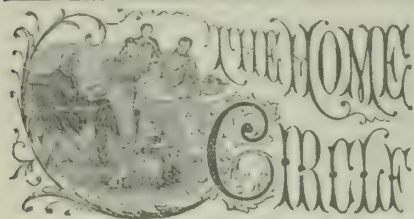
Owing to bad roads, the attendance was not very large. A bounteous repast was spread by the sisters, and with song and social conversation, a very pleasant day was passed.

RHODA WHITAKER, Sec.

Bennett Valley, Jan. 21.

THE W. M. AT PACHECO.—By invitation of General Deputy G. P. Loucks, Worthy Master Overhiser has consented to visit and install the officers of Valley Grange, Pacheco, Contra Costa county, on Saturday of this week, and we hope there will be a large attendance not only of members of that Grange, but many visiting Patrons of Contra Costa county.

We learn that Bro. C. J. Cressey had a sudden indisposition Thursday of last week, but was sufficiently relieved to attend Grange on Saturday, to the pleasure of all.



Behind the Times.

Give me the good old times again
When poetry was writ
To stir the hearts of manly men,
With tales for heroes fit;
When love songs were not faint nor few,
But rang a lusty lilt,
Such as became a lover true
Of bone and sinew built.

I fancy not this dainty verse,
Spun out as fine as wire,
Some hopeless passion to rehearse,
All ashes, and no fire.
These labored lines of perfect rhyme—
Poetic cameos—
Are cold as icicles; the time
Were better spent on prose.

Those little bits of light and shade,
Where some smart repartee
The reason and excuse is made
For stanzas two or three,
Amuse, 'tis true; but, save the mark!
If poetry has come
To such a pass, let Byrons hark,
And Walter Scotts be dumb!

Nay, give me the old days again
When poets' blood was red;
When love was warm, and men were men,
And felt the things they said;
When woman chose to please her heart,
And not for others' praise—
Nay, smile; I know my sing-song art
Is that of other days.

—Walter Clarke, in *Table Talk*.

Learning Lessons.

[Written for the RURAL PRESS by M. E. T.]

Learning lessons every day
Like the baby at my feet,
Though my hair is silver-gray
And my steps no longer fleet.
Baby, you must quiet be,
For your mother needs to sleep;
Learn this lesson, baby, see
How still my little one can keep.

Grandma, learn this lesson, too,
Guard full, will your tongue and face;
Crowd with actions good and true
All the small remaining space.
Stop, my child, thy loud complain,
Here upon my bosom rest;
Neither am I quite a saint
When my patience has a test.

Thy tottering feet, my little one,
To mischief guides thy restless hands;
So my devious paths are run
Through prickling thorns or sinking sands.
Thus as baby learns her task,
I, less willing, do my own,
Still imperfect, till I must ask
Indulgence for impudence shown.

Watsonville.

Women, Etcetera.

[Written for the RURAL PRESS by DAGMAR MARIAGER.]

After all, it may be that neither man, woman, gold nor rum is the root of all evil. I sometimes wonder if the greatest curse of earth doesn't exist in the fact that but few of us can reason on any subject independent of public favor or prejudice, or free from a personal standpoint. A question may, undoubtedly, safest to a just judgment, be reasoned on wholly for the welfare of those whose interests are involved, provided that all are considered, and none left out, because of minority or want of sufficient power or opportunity to plead their cause with proper ability. When I want to know whether or not a horse is driven too hard, his blinders drawn too close, causing temporary discomfort and ruining his sight, tortured by the gag-rein, or neck cramped but to flatter his master's dudish vanity; whether or not he is fed, housed, watered and generally treated with a due consideration, I, in order to do the case justice, am compelled to change hide and harness with the animal, in my imagination, and go through it all in his place, and what I then honestly think the horse in my clothing ought to pronounce as his verdict in my case, I, being acknowledged a four-footed slave, that I pronounce as my verdict in his. And when, the horse aside, the woman's general treatment becomes the question, it may be better, for a just judgment of her case, that her judges change positions and opportunities with her, or rather, the want of opportunities.

A good many of us see daily our own women insulted, slandered and wronged in the hundreds of ways that woman's subjugation to man solicits, while it denies her the redress entirely in the hands of the enemy, and even defies complaint by adding more insult to the injury, when occasionally one rebels against the time-honored womanly virtue (?) of putting a premium on wrongs against herself, by her silence, and she dares speak the truth in the face of her persecutors. A good many of us meet daily these cases, with our sympathies untouched, and the hand that could help to right the wrongs against these women, but raised

against them in a threatening menace. This is what we do, the while breaking our hearts over the slavish condition of "the poor foreign woman," who has, we are told, so far ceased to be a necessary evil as wife that she has to have a "dot" to hold out as a bait for spendthrifts to nibble at until one is caught, and the "dot" paid him for his goodness on their arrival at port nuptial.

The fact is, the foreign woman's "dot" is seldom coupled with a "dottess," or a dissipated wreck of manhood; nor is it to be looked upon as the husband's, to save or squander it as may suit his pleasure. The bride understands that it is as much hers yet as his is his, and by it she is spared the humiliation of dependence, and also becomes more or less his equal in business and all matters pertaining to their joint welfare.

There are thousands of American wives who have furnished the dots for both, and from the day lost all control of their use or abuse who would gladly hold the foreign wife's position in her husband's confidence, for the mutual good, and, in many cases, for the better training and education of their children.

As a rule, the foreign wife neither forfeits entirely her individuality nor attempts to ignore her responsibility, particularly in the rearing of her family. The woman who gives herself bodily together with her financial all to her husband for weal or woe, as he may direct—a practice far less common there than here—unfits herself for the responsibilities of motherhood, whether or not she boasts the excuse that she has done so in the much-lauded "wisely trust;" she unfits herself for acting the part of companion and helpmate to him, and if his strength of character is not that of steel, she must necessarily debase his nature in the degree she demeans her own.

Any thoroughly loved wife will cultivate what ought to be earnestly condemned, namely, "a yielding nature and a clinging confidence." This method of reaching for happiness has been thoroughly tested, and it has shed nothing but ignorance, deception and cruelty in the home circle. If a wife is a human being, then her integrity should be worth something; and if worth anything at all, it should be as much worth protection from abuse by her husband as from an attack by any other man, if not more.

But the fact remains that women are compelled to seek husbands among men who are morally their inferiors, without thought of love, for the bare protection that savage tribes insure their women without their sacrifice to one enemy; and then often the one demon inside the locked door becomes more terrible than were the thousands without, and but tolerance and suicide remain, between which the wife may choose, as husbands don't call witnesses to the private chamber where they exercise their "lordly rights," while they readily put on a fine showing for outside observance.

The wife who has been badgered into the belief that she was created expressly to "spread roses all around," and particularly to spread herself as the favorite doormat for her husband to wipe his feet on, has lost her self-respect, becomes contaminating as an associate, and she suffers abuses to the shame of the woman whose spirit is not wholly crushed, while she is a co-rupter, too, of weak-minded and mimicking men.

When women become self-supporting and a due public respect is shown them, so they may do bridge-building, lay brick, carry the hod, or work out their taxes on the public streets with no fear of attack because of being members of the reproducing sex, I'll vouch for it that there will be more happy homes than there are to-day, fewer people living in singleness, and that nine-tenths of the wives will have the motto, "I'll trust him so long as he's true," pasted in their hats. Then many of the men who now get wives without difficulty will be shunned as the moral lepers they are. Noble men will be in general demand, and where there is an earnest demand for anything a supply follows.

The man is not worth saving who wants to be kept true to his marriage vows by flowers at the kitchen window and worsted cats, dogs, pigs and other unclean and nondescript specimens of the real and imaginary world scattered profusely over the furniture of every room in the house, while flutes and laces dangle from the mop-cloth and pot-rag. Indeed, many are beginning to think that the craze for "making the home attractive" has done more than anything else in sending husbands and boys from home. What are these poor infants to do when the wife and mother is ever stitching her sight and brains into some fancy trinket, her ambition and moods ever unfitted for intelligent companionship, while the home is but a museum, none of them being free to sit, stand or lie with any degree of comfort anywhere between the cellar floor and the attic roof, in trembling fear of soiling or disarranging a spider-web of some kind or carrying something away on a rear button. I believe as much in protecting men's rights as in helping women to get theirs, and I think it not only men's right to protest against these abuses of the home that should ever promise peace and comfort, but their duty as equal partners to do so, lest their silence be accepted as consent to them and equal guilt.

Neither husbands nor boys can be expected to find home comforts in a museum nor wisely sympathy and motherly guidance in a mother who has given her mind and heart to the improvement of the museum business. What then are the poor pantalooned babes to do but go forth to the dram-shop for wisdom and moral teachings?

Not alone the wife but any servant will

consider the taste and fancy of her landlord in preparing the evening meal, and this all seems too prosaic for me to find any spiritual sentiment in it, when the flask isn't added to the dining table sweets. If a wife has to don her finery when she sees her husband coming, it would seem that the finery and not the wife becomes the center of attraction. Would any husband do such a stupid thing on his wife's coming? No. And why not he as well as she? He considers himself acceptable as he is, no matter if his work has left him kissable or not. If she isn't worth as much, then she has married above her station, and both are thereby wronged. And why should she strew his pathway with roses, or he hers? But if they must, then let them be cabbage roses, or a kind more useful than ornamental, for life is real and life is earnest, and the duties of wedded life are not to be trifled with by holow and romantic trivialities, especially where they hold an underlying evil current. The sentiment nature intended should go with matehood is too sacred for such trifling. Let the wife and husband themselves adorn the home by such intellectual beauty and justice as they may possess, and leave the roses to adorn the unsightly garden-wall.

Let women redeem their lost personalities and go forth into the world to cultivate what they are best fitted for; let them feel the dignity of self support and equality in all the pursuits of life, and they will cease to commit the crime now constantly forced upon them, that of marrying men they dislike as companions and fathers for their children, and for whom, in many cases, they have neither a feeling of love nor respect, except to outward appearance. When the true woman may find and wed her equal and her choice, his love and respect will never grow less because of a business partnership between the two.

Many of us are shedding tears enough to drown out the sins of our own country, if they were drownable things, over the fact that foreign women work in the harvest fields, on the banks of canals, and even in harness. Now are these things really so shocking? When I saw the rosy cheeked, well-formed, clear-complexioned and merry-eyed women binding the rye behind the reapers, my heart bounded with joy, and I sorely regretted I were not artist enough to convey the scene to paper as a picture of wholesome and harmonious co-operative industry.

When I saw women working on the banks of canals, my regret that they were compelled to do such heavy labor was blended with a greater regret that thousands of poor women of America, with children to support, and starvation staring them in the face, were forced to sit in some garret and ruin their eyes and nerves over needle-work, which only serves to lengthen their misery—forced to sit between four walls night and day, month after month (or years, when they are hard to kill), to weep and moan between stitches, unseen and unheard, while they would gladly do menial labor in the open air to insure the bare necessities of life, were only American men (joined by many of the pampered and the thoughtless classes of women) but less sensitive on the subject of womanhood propriety. Indeed, I wondered if our "tender-heartedness" were not sheltering the foulest wrongs, and tending not only to foster an unscalable wall of contempt between the sexes, but threatening the destruction of the humane spirit within us, which is already sadly feeble.

If women may not test their faith in their own strength and virtue, of what use are these qualities? Surely a woman's honor is safer in her own keeping than in that of another, male or female, and the only support she requires is the opportunity to acquire knowledge to take the place of a persistently taught ignorance that has almost left her case a hopeless one. This, together with the respect and protection given to her brother, will make her her brother's equal, and safe as he to walk, if she chooses, from San Francisco to New York, without comrades or body-guard, as I expect in the future to walk alone over the counties of Denmark, if I fail (as I expect to do) in finding a lady of the same mind to join company with, and I expect to do so fearlessly of any salute more offensive than that of bare curiosity.

What if I, a woman, were to attempt to "do" the settled parts of America on foot? I should probably not cover 20 miles before I would find myself handcuffed and shackled, and accused of every fiendish crime imaginable by every man, woman and child within reach, and found guilty of them all, without trial, and be branded, hung, and at last buried in a madhouse. But why should I not "do" the "civilized" parts of America on foot and unmolested, as I have "done" thousands of miles of its unsettled parts in safety, with but a woman and child and five animals as my companions, and far out from the crime-sheltering wing of American government?

Some may ask me, as the cannibals do the missionary before they fry him, why don't I live in a more favorable country for such as I? Because I want to remain here to speak of things as I find them.

When in Europe, I saw women and dogs on the streets co-operating in the labors of drawing carts and selling fish, or some other salable thing, I said, more or less under my breath: "Bravo! Don't go to America, my dear woman, for there the maselines are not only selfish monopolists in the remunerative indoor as well as the outdoor bread-winning lines of business, but there they would en masse wickedly hold

the fort against your heroism by hurling sneers and scoffs at your womanhood, until you, with your bravery overpowered by cowardly attack, and with your babes clinging to your skirts, would be glad to seek refuge in some cold, dark and comfortless garret, to be cast out by the landlord, perhaps, before you were all quite dead."

—Santa Barbara.

"Reform in Funerals"

Was the subject of a paper, lately read by Rev. G. E. Walk before the Pastors' Union of San Jose, of which the following are extracts:

It seems to me that in any work of reform in this particular line, where our duties are commingled, there should be concert of action between the ministers and the directors of funerals. . . . How necessary the skillful and intelligent director has become! How much he can do to relieve aching and anxious hearts in the most trying hours of mortal experience. It is some mitigation of the overwhelming sorrow which sooner or later comes to all homes to be able to hand over the bodies of our precious dead to those who know how to prepare them for the final rest of the grave. I have often thought that the quiet, orderly, sympathetic services of the true undertaker are seldom appreciated as they deserve. Half the ghastly horrors of death are overcome in the hands of a funeral director who has a true appreciation of his delicate and responsible calling.

But there are some abuses connected with the modern funeral concerning which I wish to particularly address myself—abuses growing out of false ideas of propriety and long established custom.

Of course, as ministers we expect to bury members of our churches, and those who have any righteous claim upon our time, without fee or reward; and as to the poor, the friendless, the stranger, we expect nothing and would accept nothing. But when it comes to those who do nothing toward our support—who call upon us simply because it is convenient—who often subject us to actual cash expense, to say nothing of the serious and grievous inroads upon our time, and who very often do not so much as thank us for our services, I insist that the case is very different, and for one I protest against it. I have often spent a whole day to officiate at the funeral of some person whom I never saw, who left a large estate, and yet from whose family I did not get so much as a nod of recognition.

There was money to buy an expensive case or coffin—to buy flowers—to buy all the trappings of woe—to pay the merchant—to buy the grave—to pay the gravedigger; in short, there was money for everybody and everything except for the man upon whom devolved the gravest and most delicate responsibility of all. For him there was not even thanks. Perhaps they didn't think of it. Very true. Then some one should have reminded them of it—and who could more appropriately do this than the funeral director? Here, then, we see the necessity for concert of action.

(2) The great expense attending the regulation funeral is an abuse that loudly calls for correction. I have known poor families who were pinched and starved for a whole year on account of the unnecessary expense incurred in a single funeral.

(3) Public funerals are objectionable. Let the religious exercises be held at the residence or church—the former, if possible—without reference to the burial. Let that take place subsequently and privately. Let there be no public exposure of the dead. For friends who wish to take a last look at the departed, an hour or two can be indicated when it will be in order for them to call at the residence for the purpose. Some intimate friend can be present and in attendance at the door, so that it will not be necessary for the family to see any except those whom they desire to admit to the privacy of the inner circle.

(4) As far as possible, funeral services should not be held on the Lord's Day, as it not only interferes with the established order of things in our various churches, but also devolves too much work on the minister and the funeral directors.

(5) The long-winded funeral sermon is among the things that should "go." It is an abomination that cries for total and eternal extinction! In the first place, it is unnecessary. Religious services are held for the living, not the dead. Allusions to the dead—except in extraordinary cases—are in bad taste. If the subject died an unrepentant sinner, the preacher cannot tell the truth concerning him without giving offense; and if he was a Christian, then the example of his life will speak in words more eloquent than any living preacher can command. An appropriate hymn or two, a few verses of aptly chosen Scripture, a simple prayer, and all is ended. I believe that such services would command the respect of all classes of people; whereas fulsome eulogiums do but provoke derision and contempt.

DOG-CATCHERS seem to be much the same the world over. In St. Louis, a brace of the genus lassoed a little boy, threw him into the pound-wagon with a lot of dogs crazed by fear, and carried him to the pound "for fun." The poor little fellow was taken out nearly exhausted, and is now suffering every symptom of hydrophobia. The dog-catchers have been arrested, and both of them were shown to be ex-convicts.

Our Boys.

From the above text the Eureka Standard preaches a little sermon, which may find heedful hearers in other counties besides Humboldt. Here it is:

The most vital question for any generation to solve aright is how best to preserve in their successors that which is good, praiseworthy and noble, and, at the same time, remove some of the evils and vices that have been found in every clime and with every generation of man since the beginning of civilization. Each succeeding generation, profiting by the experience and the discoveries of its predecessor, must be wiser than the last. No matter what the grumblers may say, the earth moves—science, art, literature—all move forward. The present generation has far greater facilities for securing an education than the last; and science has worked miracles, even in our own day. The question, then, which is of the greatest moment to us, is how to make the succeeding generation better; for wiser they will surely become.

The farmer studies how to improve the grade of his stock; the sheep-rancher, how to improve the quality of his sheep and the texture of the wool they produce; and the orchardist or vinticulturist, how to improve the quality, quantity, and flavor of his fruit. In every instance they do this by going back to the fountain-head or germ of animal or vegetable life, to improve the young, and then, by constant pruning, care, and culture, to assist nature to improve upon itself.

No man would take a crooked, gnarled, diseased, fullgrown tree and try to straighten and improve it, unless by grafting young and healthy scions into its branches; yet the very thing about which people manifest so much solicitude and wisdom in dealing with their livestock and orchards, they frequently neglect in the care and culture of their own children.

It is common to see a good farmer, or a good business-man, expending large amounts of money to improve his farm, stock, or business, who gives less thought and less means to the proper care of his own children than to the improvement of his cattle or the increase of his goods. The desire to get rich seems to be the curse of this age, and outweighs, with many, every other consideration. Children can bring themselves up by hand, and go to the devil by scores, for the want of that parental restraint and culture which every man owes his offspring, and through them, owes the world.

These remarks are not caused by any desire to find fault with the world, but from a firm conviction of the truth of that old maxim: "Just as the twig is bent the tree is inclined." There are many twigs in the city of Eureka to-day that are being warped in the wrong direction. It is not uncommon to see a drove of ill bred, noisy, quarrelsome and profane urchins, from 5 to 15 years of age, most of them smoking cigarettes, or chewing tobacco, going up and down our streets at all hours of the day and far into the night, making the air foul by their smoke and their profanity. We have often stopped to look at these boys, to feel sorry for them, and to wonder what the future has in store for them. Some of them may possibly break through their environments in the future and become good men—just as a few people will pass through an attack of the yellow fever and come out sound and healthy—but the great mass of these boys, unless taken in hand by some authority, are bound to graduate from this street school into miserable victims of debauchery and crime.

Where and who are the parents of these children, who are thus allowed to roam the streets at pleasure? Have they any idea of their responsibility for the training and education of these boys? If they were kept off the street—at school or at work—anywhere but where they now daily resort, they might be saved to become good citizens, honoring themselves and comforting their parents in their declining years. Here, where we have free schools, for which the property of every man is taxed, there is no excuse for children growing up in the street to be a nuisance to the public, and finally to graduate into our jails and penitentiaries. Parents, what do you think of this? One good-hearted, noble boy, reared to respect himself and honor his parents, is of more value to you and to the world than all the blooded horses, cattle and sheep you can raise on the best ranch in Humboldt county. Fathers and mothers, who strive early and late to amass wealth, think of your boys and girls more, and of your wealth less. Proper training and culture of the youth of to-day will give to us not only a wiser, but a truer, purer, nobler manhood in the future; will give us a generation which will perpetuate the liberties we have inherited, and make us great among the nations of the earth. The vulgar, profane, cigarette-smoking street gamins, God pity them, will grow up mental, moral and physical wrecks unless nature's laws are abrogated, and nature doesn't do business that way.

Fathers and mothers, we are talking to you! Look well to your boys.

TO REMOVE TARTAR FROM THE TEETH.—Should any little incrustation (tartar) appear on the sides or at the back of the teeth, which illness and very often the constant eating of sweetmeats, fruit, and dishes containing acids, will cause, put a little magnesia on your brush, and after a few applications it will remove it.

YOUNG FOLKS' COLUMN.

Tim Hooley's Responsibility.

[Written for the RURAL PRESS by ADAH FAIRBANKS BATELLE.]

When Mike Hooley ran away from his family he left his wife unprovided for, and with eight children to support.

People wondered how they would get along—such a family of them, from the baby up to fifteen-year-old Tim.

"I don't know whether to call it fortune or misfortune," said a neighbor, Mrs. Martin, to her husband. "Of course she won't be beaten or turned out of doors any more, so she is better off in that way."

"The only trouble is, he won't stay away," agreed Mr. Martin.

If things looked blue for the Hooleys, Mrs. Martin was well aware that it was not the first time.

"People have helped them and they can again," she said, thinking of the many garments bestowed upon the children, who generally appeared a day or two later minus the acquisitions.

People thought Tim ought to support his mother, but no one knew what he could do.

He was one of the worst boys in a town that boasted few good ones. Even his teacher learned that his word could not be relied upon, and the disappearance of sundry pocket-knives, pencils and lunches was a trial to pupils as well as teacher. Hens in that vicinity laid few eggs, and apple trees bore little fruit, so thought the owners when they went to gather one or the other.

For a boy with such a reputation, places to work were not plenty.

Poor Tim! few knew what he had suffered. The beatings Hooley gave him would have killed a less hardy child; he was like one of those stunted trees that a storm cannot fell. His mother had slapped or shielded him as her mood might be. Home meant nothing to him, yet deep in his heart lurked love for his mother, seldom shown.

The flour-barrel was fast being emptied; matters were becoming desperate when one day the priest called at the Hooley domicile. Mrs. Hooley looked upon him with reverence, but mother-love was the stronger, and she did not take his advice though she listened respectfully to what he had to say.

"Sure an' it's Johanna Hooley niver will do it, niver," she exclaimed in a passion of tears when he had gone. "He'd be for sending the children to the orphan asylum and me out to service. The service I'd not mind, but the poor babies would die widout me."

Her wailing Tim did not care to hear, and started out of the house. She cried after him, "Oh, Tim, Tim, Tim, can't ye help me keep the children to home?"

Until now Tim had asserted that he did not want to go to work, but his mother's words had such an effect upon him that he muttered, as he pulled his slouched hat over his eyes, "Mebbe I'll go to work, I dono;" (the last word being a corruption of *do not know*.)

The half promise was enough to raise his mother's spirits, and she went about singing as she made bread from the fast-diminishing flour.

That evening for supper there was only bread and cornmeal mush without milk or sugar. Mr. Hooley had sold the cow before he left, so milk and butter were out of the question. It set Tim to thinking, not that the cupboard was never before bare, but his father, in providing for his own wants, had provided after a fashion for the family. They had always lived somewhat in Indian style, eating when hungry or when there was anything cooked.

The thought that there was no likelihood of food coming in made Tim for the first time in his wild, irresponsible life think for himself. He went over the whole question in mental debate as he lay awake that night. What would it be to go to work—to work in the mines? He well knew that of the few farmers none would hire him because of his reputation. Mining was the only alternative, and he was not sorry. He tried to imagine himself trudging to work at five o'clock in the morning instead of crawling out about nine o'clock and playing "hookey" because too late for school. His present life was certainly the easiest, and easy places are what a large part of humanity is searching for.

Tim lay awake till past midnight turning over the proposition in his mind. His very being cried out against work. It was contrary to his nature. He had never worked; he had hoped he would never have to; had hoped it in an indefinite way, for his future lay very vaguely before him.

He would not work! then came the picture of the brothers given to different people, the little sisters in an asylum or perhaps dead. And he was the oldest; he saw that all depended upon him, and wished that he were the baby, with an oldest brother who liked to work. The world looked so dark. He turned and tossed as much as the presence of Dan and Joe and Pattie in the bed would allow.

It was the struggle of his life, and may we not feel sure his good angel rejoiced when he resolved "I'll go to work!"

That resolve was a turning-point in his existence, but the first realization of what it meant came to him the next day.

Boys were not in demand in the mines, and

Tim applied without success for work. He stalked off sullenly after his request had been denied, and resolved to give up. However, the perseverance that made his mischief so serious a matter came to his aid and he went on trying. The third foreman to whom he applied promised him a place, with work to begin on the following Monday. The promise was gruffly given (that was Mr. Carroll's way), but Tim knew this as a gruff world, and did not mind the tone since the words were what he wished.

If Tim had been in the habit of describing his sensations, he might have found it difficult to tell just how he felt as he walked out of the sand-house. There was no retreating; he was to go to work to support the family. He was responsible for their welfare because he was the oldest, he told himself again.

When he told his mother she praised him until he felt he had really done something heroic. The poor woman really dared to give her opinion when her husband was away.

"It's thirty-six dollars and forty cents a month will kape us illegantly," she said, and Tim felt sure she was correct.

Provided with a new dinner-bucket, Tim started out Monday morning and was one of the first in the mine. Mr. Carroll nodded approvingly and put him to work. He looked too small, but his wiry little body was animated by a desire to do as well as the rest, and he did, gaining muscle every day.

How many times he fell into the Slough of Despond! How many times he was ready to throw down his pick and leave.

It was discouraging to go home tired and hungry, and find his mother at a neighbor's, with nothing prepared for supper.

Mrs. Martin, finding this out, sent things from her own table, and also gave his mother a severe talking to on the subject.

When Tim's first month was past and he brought home a check in payment for his work, the world looked brighter to him than it ever had before.

He capered around the bare little sitting-room; he stood on his head for joy.

All his sulky silence had vanished, and he talked gaily to his mother and the children, who were as pleased as he.

He brought home the next month's wages with equal pleasure but less demonstration.

Tim needed the schoolwork the other children had, but the school of experience was doing more for him than could any university.

A year later Dan went to work for a farmer. That brought in a little money, for he imitated Tim and put his earnings into the common treasury.

Mrs. Hooley added her share, washing shirts for men in the neighborhood who were glad to help her by giving her the work.

And so the family got on well—better than any one had imagined they could.

No one quite understood the change in Tim. He looked people in the eye nowadays, and no longer acted as if he expected a blow when he made a request.

"I should have been a jail-bird," he once said, "if it hadn't been for that responsibility taming me down as it did. I knew the family depended on me and I went to work to take care of them."

In taking care of the family he had done something else.

Some one has said that any one can run away leaving a bad reputation behind, but that it takes a hero to come back and live down a bad name.

And Tim had lived his bad name down, replacing it with a good one.

San Jose.

A Talk to the Children.

[Written for the RURAL PRESS by M. E. T.]

Did you ever know boys and girls whose hands and feet did not belong to them? I have, and they were well-meaning children. They wanted to do right, and felt very badly after their meddlesome little fingers had taken things which did not belong to them, or spoiled other people's things by handling them. And I have known a little boy who was frightened and grieved when he stopped to think, and found that his truant feet had carried him beyond where his mamma had told him to go.

And I have known some who did not seem to own their eyes, ears, or tongues, and were so ashamed, and their cheeks so red, when their wretched little tongue said what was naughty and bad. And I have seen boys and girls eager to hear quarrels and bad words, with their bright eyes wide open to see fighting and cruelty to animals, and other ugly sights, when there is always something beautiful to see, if it is nothing but the little flower by the wayside, and something sweet to hear, if it is but the song of a bird, and so many nice things to say, if you only repeat a verse of your last school song. But the worst of all is when boys or girls seem to lose their whole heads, and they not only see, hear, and say bad things, but think them. Yes! they even give up the pretty home of their life to ugly thoughts. And then it is not long until their face shows who it belongs to. Just look at all the girls and boys you meet in one day, and what a great difference there is in their faces. Do you want to look like the worst boy or girl in school—so scowling and sly? If you do, just give up to your temper and think ill-natured things, and soon your face will show the marks of its owner; think good thoughts, and they will be reflected in your pleasant faces.

I knew a lady once who held a looking-glass

before her screaming children, and it was funny to see them straighten up their faces and smooth out the ugly wrinkles. I like to see children look into the glass and be met by a smiling, honest face.

Then try, my children, to keep possession of your busy little hands and make them do what is right. Guide your feet that they may not lead you astray. Remember your eyes and ears and tongues that they do not pass into the possession of evil thoughts, which will direct them as they wish. An Indian once said, "There is a bad man in me and a good man, and they are always fighting for the mastery;" so in every human being good and bad are always striving for victory. But with all the helps children have in these days of good books and good teachers and happy homes, there seems to be no reason for one to be bad, if his Good Genius fights the good fight.

Watsonville, Cal.

DOMESTIC ECONOMY.

SHORT CAKE.—One cup of sour milk, two-thirds of a cup of sour cream, one teaspoon of soda, a little salt, flour enough to make a soft dough; roll out a half-inch thick and bake on pie tins.

COCOANUT JUMBLES.—One cup of butter, two cups of sugar, two eggs, one large cup grated cocoanut. Use flour enough to make a dough that can be rolled. Bake the cakes in a quick oven.

SOFT GINGERBREAD.—One cup of molasses, one mixing spoon of lard or butter, one-half teaspoonful of ginger, three cups of flour, one cup cold water, one teaspoonful of soda. Mix all together free from lumps and bake.

WASHINGTON CAKE.—Two cups of sugar, one-quarter cup of butter, three cups of flour, four eggs, one-half cup of milk, two teaspoonfuls of baking powder; bake in layers. Cream for filling: One pint of milk flavored, one egg, two tablespoonfuls of cornstarch; boil till thick. Spread between layers when cold.

MOCK MINCE PIES.—One large cup powdered cracker, two cups of sugar, one cup molasses, one cup vinegar, one cup chopped raisins, one cup warm water, one-half cup butter, one teaspoon each of cinnamon, cloves, allspice, nutmeg, a little salt, a few drops of essence of lemon, two eggs. This will make two pies.

CREAMED FISH.—Pick to pieces any scraps of cold fish, mix in one quart of cream, two tablespoonfuls of flour, one onion and half a pound of butter. Set on the fire and stir until thick. Then put a layer of the mixture in a deep pan, over it spread crackers and butter, alternately with the fish, until the dish is full. Bake brown.

RIBBON CAKE.—One cup butter, 2½ cups sugar, four eggs, one cup sweet milk, three cups of flour, two heaping teaspoons of baking powder. Divide into three parts. To one part add one cup of raisins and one cup of currants, spice to taste. Bake the three parts in three separate tins. Put the part with the fruit between the other two, spreading a thin layer of frosting between, and cover the top with frosting.

VANILLA CUSTARD.—Boil one pint of cream with four ounces of sugar for one-fourth of an hour; then strain through muslin. Beat well yolks of six eggs and pour milk over them into a bowl, placing bowl over pan of boiling water, and stirring rapidly till it thickens. Let it cool gradually; add one teaspoonful of vanilla to suit taste, and stir continually. When cold, serve in dish covered with whipped whites of eggs sifted over with sugar.

PUMPKIN MARMALADE.—Pare, core and cut into small pieces a medium-sized ripe pumpkin of rich color; take six pounds of sugar, one pint of good cider vinegar, a dozen cloves and one ounce of best root ginger; bruise the ginger, and tie it with the cloves in a spice bag, put it with the sugar and vinegar in an earthen jar or porcelain-lined kettle that will hold two gallons; when it gets warm, put in as much pumpkin as the jar will hold, pressing it down, and boil it until it is well cooked (it will be quite transparent and soft); take it out with a strainer and set it near the fire while the liquid boils to a thin syrup, put the pumpkin back into the jar, and let it boil for half an hour, crushing it as much as possible the while with a wooden spoon.

CURIOUS MODES OF DEATH.—A Baltimorean recently dropped asleep on a park bench, when his head falling forward, he unconsciously choked to death over the stiff edge of his celluloid collar. A dog died in Illinois the other day from drinking the water in which a flannel shirt had been rinsed. A St. Louis man has died of erysipelas contracted from a verdigris brass collar-button eating into his neck; and a man in Chicago was roasted to death by the firing of his cotton underclothing as it dried before an open grate.

THE SOURCES OF TYPHOID FEVER.—The prevalence of typhoid fever in New York and Brooklyn during the present season has led Dr. Cyrus Edson of the local Board of Health to make an exhaustive examination as to the origin of the disease in as many cases as possible. He found that the disease, in nearly one-half the cases inquired into, was contracted in country resorts to which the victims had gone to find health.



A. T. DEWEY.

W. B. EWER.

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Windmills—A. M. Abbott, Stockton.
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Commission Merchants—H. M. Newhall & Co.
Trees—Pike Co. Nurseries, Louisiana, Mo.
Orange Trees—A. Warr, Georgetown, Fla.
Plants—Gale Mfg. Co., Albion, Mich.
Roses—Cottage Rose Garden, Columbus, O.
Riverside Nurseries—Frost & Burgess.
Orange Trees—B. F. Wellington.

See Advertising Columns.

The Week.

There is nothing especially the matter with the weather or the world this week, so we will give stated topics a holiday and rise modestly to speak of ourselves.

Readers have doubtless noticed that by a recent arrangement the subscribers of the RURAL PRESS and of the California Patron have been joined in fact as they have always been in sentiment, and in industrial belief and purpose. This enlarges the parish and clientage of the RURAL somewhat and will enable us to make the journal better and more valuable to every reader because of the greater resources of experience and co-operative interest and zeal which we have always been fortunate in securing from our readers.

We celebrate the event by announcing that those who pay in advance will find the subscription price of \$3 covering a longer period than ever before, thus practically reducing the price considerably to those who aid us by prompt advance payments without changing the

rate to those who do not find it convenient to do so. Of course such advance payment gives us advantage of working capital and saves trouble of collecting, which we recognize by extending the term as an equivalent for the favor on our part.

We shall be glad to have our new arrangement mentioned to all who can be interested or benefited by the work of the RURAL. We want to retain all old friends and patrons on the terms which suit best their convenience and to win many more.

With this cordial assurance we propose to advance with the work of making the RURAL PRESS the worthy exponent of the grand agriculture of California, as in the past its friends have kindly called it.

Animal Interests at Sacramento.

The Legislature is to consider several propositions relating to our animal industry, and we are glad of it. Senator Boggs has introduced a bill providing for the appointment of a State Veterinary Surgeon, and fixing his compensation. As we have frequently stated in the RURAL, this is a proposition to provide an officer whose services are in crying demand in this State. We have almost weekly appeals from different parts of the State calling for a visit from a State officer who can tell the people authoritatively what disease is affecting their stock.

As we have shown, there is now no way to meet such a case except through action of County Supervisors, which is a slow way at best. A dangerous disease might spread through a community while such action was pending. Then the supervisors are always at a loss to know whom to employ and run the risk of getting a low quack at a high price. We believe almost every State in the Union and many of the Territories have State Veterinarians, while California has done nothing hitherto for the health of its live-stock and to save the immense annual losses to stock-growers.

The bill introduced by Senator Boggs provides for the appointment of a competent veterinary graduate, who shall act in conjunction with the State Board of Agriculture and the Agricultural Experiment Station in investigating and advice on veterinary subjects, shall proceed at once to regions of suspected contagious disease, shall make continuous studies and investigations on such matters and shall publish an annual report for the information of the public. He shall also give instruction in the College of Agriculture of the State University. Senator Boggs, both as a leading agriculturist and director of the State Board of Agriculture, knows well the importance of the measure proposed, and will, we trust, receive the aid of all legislators toward its speedy enactment.

Another measure of which we learn by telegraph to the city dailies, and to which we shall give further investigation and comment, is one by Assemblyman Black of San Francisco. It authorizes the Governor to appoint a State Dairy Commissioner at \$3000 a year, with a clerk at \$1200. He is to have free access to all milk factories and dairies, and may appoint chemists and others to assist him in his duties. It will be his business to enforce the Act which makes it a misdemeanor to sell unwholesome milk or anything made from it; to crowd cows into unhealthy places; to water milk or mix with it any deleterious substance, or to sell such milk to cheese-factories. All dealers in milk are required to label the cans in which it is sold, and making condensed milk from any but pure milk is made a misdemeanor. Milk dealers are required to register with the Commissioner and carry on their business according to the law. The standard test which must be used by the Commissioner in determining the quality of milk is as follows:

Specific gravity.....	1.03
Ash.....	0.70
Solids, not fat.....	9.00
Fat.....	2.50
Total solids.....	11.50
Water.....	88.50

All milk below this test is declared by the Act adulterated, and all milk produced by feeding cattle on distillery slops is also declared impure. The bill was referred to the Committee on Agriculture.

THE Abbott peach orchard, nine miles from Marysville, contains 425 acres.

A Cause of Regret.

Every good citizen must sincerely regret that all around the horizon there is not a visible indication on the part of the leading politicians in both parties to prosecute an inquiry into the alleged bribery and corruption of the last Presidential election. An investigation was commenced by the Grand Jury in Indiana, but it had hardly got under way when it announced an adjournment to enable the judge to hold court elsewhere. Then came the news that the United States District Attorney, after having commenced the prosecution, had suddenly resigned. So far there is no prospect of an investigation in Congress. It is claimed that the session will not be long enough. It is true a bill has been introduced providing for the disfranchisement of both bribe-takers and bribe-givers, but making no effort to detect and punish recent corruption and bribery. And it is really a serious question, whether the bill for disfranchising both the giver and taker of bribes does not defeat itself by making it impossible to get good legal evidence on which to base a conviction. It has always been difficult to prove bribery as the law now stands, and when both the giver and taker are incriminated, it would seem that the only avenue for obtaining information was closed. At least this is the way this measure appears to us. We leave it to the lawyers to decide.

But another cause of sad regret, growing out of the recent Presidential election, is that the eminent men who have been charged with being directly responsible for the making and using of a corruption fund seem to be in no haste to demand an investigation. Mr. Dudley, whose letter directed the division of "floaters in blocks of five," has shown no inclination to visit Indiana and demand a trial. Mr. John Wanamaker, who is charged with having made a large contribution for the express purpose of buying votes, has called for no inquiry into the facts. And yet Mr. Wanamaker is said to be a prominent aspirant for a Cabinet position. Neither have Senator Quay of the Republican National Committee, nor Mr. Brice or any of his associates on the Democratic National Committee, made any move toward an investigation, and yet both of these committees are under grave suspicion of having used funds intrusted to them for other than legitimate expenses.

Another matter of serious regret is the almost absolute silence of the political press regarding these charges. So far as our observation goes, it is only the Grange papers and the religious press that has agitated for an investigation. This looks bad. It has long become a presumption of law that silence under serious charges was presumptive of guilt. We refer to this matter in the interest of good government, and take occasion here to say that we desire to believe that all these circumstances are capable of an innocent interpretation, but in the absence of such interpretation they certainly have a suspicious look.

If JUDGE COOLEY and Mr. Morrison are at all worthy of credence, and what they say of the violations of the Interstate Law at Chicago is true, the failure of the law to accomplish what it was created for is proved. The commissioners confess that they have been employing their valuable time hitherto in setting aside issues and trifling questions, while the railway managers have been settling the important questions in their own way by mutual agreement, and without any regard for the law at all. The law should be promptly amended at the points where experience shows that it lacks power, and means found to enforce its provisions strictly. Vigilance is the price of liberty, and the farmers, Grangers and producers who have accomplished so much legislation after 15 years of hard work, should see to it that their work is not undone by these proud and arrogant railway kings.

FRUIT-UNION ELECTION.—Since the meeting of the stockholders of the Fruit Union, which is reported on another page, the new Board of Directors have held a meeting in Sacramento. There were present Directors Platt, Gregory, Treat, Weinstock, Blowers, Buok, Backingham, Anderson and Runyon. P. E. Platt was chosen president; L. W. Buok, vice-president; H. A. Fairbank, secretary; D. O. Mills bank, treasurer. These are all re-elections. L. W. Buok was also re-elected manager of the Union for the coming year.

The Mysterious Vine Disease.

We print on another page of this issue a letter by Hon. J. de Barth Shorb to the supervisors of Los Angeles county, inviting their co-operation in promoting studies of the vine trouble which is working such havoc in that county. Mr. Shorb's statements will be read with interest.

There is some question as to how far this trouble extends throughout the State, and some have risen in wrath to repel what they thought to be charges against their regions. This is natural enough, and the only way to ascertain the real extent of the trouble is to make close and systematic inquiry. This will bring to light notes on the occurrence of the most obvious symptoms, though, of course, it will require expert examination afterward to determine whether these symptoms are all indications of the same disease.

Executive Officer Wheeler of the Viticultural Commission is now sending out circulars of inquiry to all vine-growers of the State, the object being to ascertain as far as possible all localities and counties in which the mysterious vine disease of Southern California has made its appearance. The presence of the evil is most commonly characterized by a general turning yellow and dropping off of the leaves of the vines in the spring after they have acquired a growth of from one to three feet. In this manner groups of vines, or vines in spots, throughout the vineyard succumb without apparent cause, the root continuing fresh and sappy after the upper part is dead. Other vines dying from the same cause may appear healthy and vigorous until the berries are well formed or half grown, and the canes then gradually wither back and die from the tops or ends. The roots may continue living until the following spring, and even longer, but they finally die and rot. Many have likened the vines dying from this cause to those suffering from the attacks of phylloxera. In fact the stunted growth of the vines is in both cases strikingly similar at some stages of their development. And to those familiar with the attacks of the phylloxera this knowledge may be of assistance in finding the new disease. Growers are asked to carefully examine their vines, and if any suspicious appearing ones are found, to forward specimen canes to viticultural headquarters for microscopical examination.

Improved Fruit Cans.

Fruit-shippers will bear with interest that the railways have decided to do something to prepare their cars for the fruit traffic. Certainly with the lion's share of the receipts from the business which the transportation companies get, according to the report of the Fruit Union in last week's RURAL, they can afford to do something in the way of better cars and more of them. The Los Angeles Herald says:

Car-Repairer Donnat, of the Southern Pacific's establishment here, has a big job on his hands, as all of the fruit cars are to be arranged after the latest style. When the cars were first constructed they were made with a ventilating shutter inside, and this was opened or shut, according to the temperature of the country through which the car was to pass. A later model, however, had the shutters on the outside, so that they could be arranged by the trainmen during transit, and by this means the different temperatures through which a car from the coast to the East passes were regulated. The device has proved so good that it has been decided to fix all the cars in that manner, and a first installment of 50 has been sent in to Mr. Donnat.

This is one step toward greater success in fruit-shipping and therefore toward vastly increased shipments. Other necessary steps are lower rates of freight, better time and no delays, less commission to agents, more direct trade between producer and consumer and wider distribution to Eastern points. Fixing over the cars may seem a small move toward these ends, but it is a move nevertheless. Nothing is so hopeless as doing nothing.

GRAPE-GROWERS' CONVENTION.—The annual convention under the auspices of the State Board of Viticulture will be held in March in the present Viticultural hall.

THE new horticultural bill to which we alluded last week is rushing at Sacramento. It has already passed the Assembly.

THERE are now 57 feet of water in the Sweetwater dam at San Diego.

Mental Company.

It has become an adage that a man is known by the company he keeps. Why may not the character of men and women be equally well indicated by the kind of books, papers and magazines they prefer to read? Surely their habitual selections mark the quality of their taste and the shape and color of their moral nature. Few people seem aware how much bad company is kept in this way. Drunken tramps are driven from the door for fear they may soil the carpets and furniture, but brutal thoughts and lascivious sentiments in the garb of polite literature are invited in to spend the evening.

Now, if the good people who denounce impure books in the Sunday-school would never buy nor read them, it is almost certain that the most of them would soon die. The average publisher prints that which sells the best, and that there is a great demand for bawdy literature is evidenced by the amount thrown upon the market. Is it safe to conclude that there is something wrong in the moral make-up of people who keep impure books in their libraries? This is keeping bad company, and can one handle soot and not be defiled? It would seem that a clean mind would shun a dirty book as quickly as a dirty loafer in the street.

Then such books are often the finger-boards that point the way to ruin. The men of the world understand this. When they see a woman, for example, devouring impure books, they know where to place her. She is known by the company she loves to keep. Bad men often seek to lead an unsuspecting woman astray by loaning her bad books dressed and perfumed in the richest diction and brilliant imagery. And surely parents who allow vicious, obscene and ribald books to come into the family need not feel strange at the low and vulgar tastes and habits of their children. In short let us remember the text, that "Evil communications corrupt good manners."

Literary Congressmen.

A Washington correspondent says that Senator Thomas M. Norwood has taken out a copyright for his coming novel entitled "Plutocracy or American White Slavery," that will make a sensation. It gives a vivid picture of Washington life, its dreary acres of politics and the fenced-in fields of barbed wire, called society. One is enabled to catch a glimpse of the way great syndicates meet and form corporations and trusts, or in short forge the manacles of slavery upon the people. It is written in the interest of the toilers and wage-workers of America. Uncle Tom's Cabin did more good for the freedom of the black slave than all the sermons, essays and orations of the day, and we hope this or some other work will soon be produced that will do as much for the white slaves of this land—a work popularized by weaving into a warp of romance a startling lesson of warning against the most dangerous shape of anarchism that is gaining ascendancy in this land in the shape of a despotic plutocracy.

Norwood's venture reminds us that the roll of litterateurs in Congress is not very imposing. Senator Ingalls was at one time editor of the *Kansas Magazine* and a fertile contributor to the periodical press. Senator Blair wrote a history of the temperance movement and Senator Daniel of Virginia has enriched forensic literature by his works entitled "Daniel on Attachments" and "Daniel on Negotiable Instruments." In the House, the first on the list is Henry Cabot Lodge, who wrote in a very felicitous style his lives of "Alexander Hamilton," "Daniel Webster" and "George Washington." Sunset Cox with his "Buckeye Abroad," "Search for Winter Sunbeams," "Why We Laugh," and "Divisions of a Diplomat." And then comes Lloyd Bryce, of New York, the author of a novel, "In Paradise," Martin Foran of Ohio with a novel entitled "The Toilers," Alvin P. Hovey of Indiana with his boosier rhymes; John D. Long, with his translation of Virgil, and Edward Burnett of Massachusetts, whose claim to literary fame lies in the fact that he married the only child of James Russell Lowell.

Survival of the Best.

We had a long talk the other day with a very intelligent friend who thinks the world is rapidly going to the bad. He said if he had the management of affairs he would throw it into liquidation. The sooner it was knocked to pieces by a comet or drowned by upsetting the ocean, the better. Civilization is a failure and the best thing we can do is to burn the patent office and courthouse and take to the woods.

We can have no sympathy for this sort of pessimism, and are inclined to look upon it as owing to bad digestion, or that morbid feeling that comes from always having drawn blank prizes in the lottery of life. Those who think these are the worst days that have ever been deceive themselves from

A Sandwich Island Sugar-Cane Borer.

[By DR. C. V. RILEY, U. S. Entomologist.]

In August last we received from Mr. E. J. Wickson of Berkeley, Cal., a piece of sugar-cane, brought from the Sandwich islands, infested by borers, which were reported to do considerable damage. The specimens were sent to Prof. Wickson by Prof. LeRoy D. Brown, president of the State University of Nevada, who collected them in June, while visiting the Sandwich islands. Prof. Brown's attention was called to the subject by his Majesty, King Kalakaua, who requested him to bring the specimens to this country for study. The cane received at the Department proved to be infested by the larvæ of a large snout-beetle of the genus *Sphenophorus*, several species of which are known to bore into the stalks and roots of corn in this country. Our Annual Report for 1881-2, page 138 ff, con-

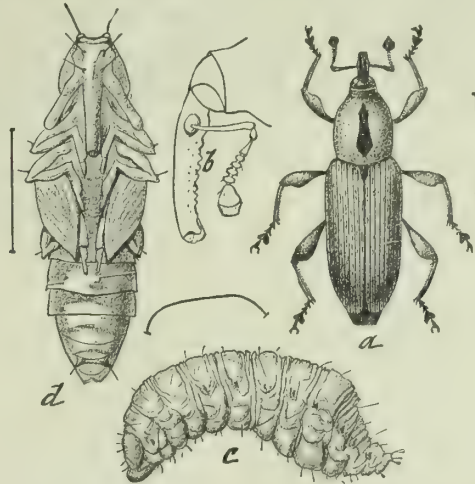


FIG. 1.—*SPHENOPHORUS OBSCURUS*. a, adult, enlarged; b, head of adult, from side, still more enlarged; c, full-grown larva, from side; d, pupa, ventral view, both enlarged (original).

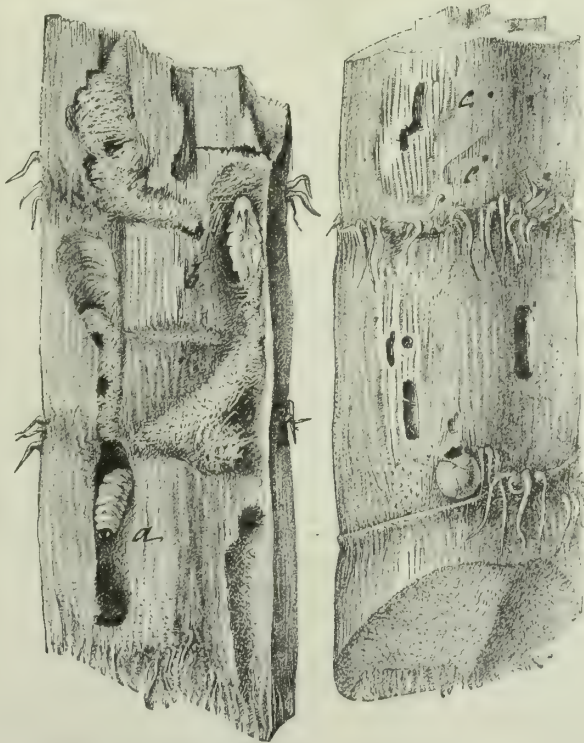


FIG. 2.—Sections of sugar-cane showing work of *Sphenophorus obscurus*: a, larva; b, pupa, in situ; c, probably points of oviposition, somewhat reduced (original).

THE SANDWICH ISLAND CANE-BORER AND ITS WORK.

taking too narrow a view of things. They are like travelers who come home from the Old World, after visiting for a season grand galleries of art, historic cathedrals, triumphal arches, parliaments and courts, not caring to see the poor and hungry, the diseased and wretched, jails crowded with the battered and low-browed victims of vice and crime. And what is the consequence? Why, the history of the past comes to us clad in the most showy drapery of art, science, music and literature, instead of rags, ignorance, superstition and bestiality. Now it will cure such people to take a journey into ancient history. If that fails to remove their sour pessimism they had better call in the doctor, a real heroic one, or at least fast a few days. In the dawn of the new year, it would be well for us all more particularly to study the working of that beautiful law that moves along the lines of Infinite Thought, that tends to the survival of the fittest and best.

tains an account of the habits and transformations of the species which more particularly affect corn in the United States, and which are known as Corn Bill-bugs.

The only previous notice of sugar-cane borers in the Hawaiian islands with which we are familiar is from the *Hawaiian Planter's Monthly* for July, 1883, but this refers to the Lepidopterous borer *Chilo saccharalis*, a species which is widely distributed wherever sugar-cane is grown. Another species of *Sphenophorus* affects sugar-cane in the West Indies and South America, and was described by the Rev. Lansdown Guilding in his prize essay on "Insects Affecting Sugar-cane" (*Trans. Soc. of Arts*, Vol. XLVI, 1828) as *S. sacchari*, while the well-known *Rynchophorus palmarum* is also mentioned as injuring the cane in the same locality.

We succeeded later in rearing the adult beetle, but failing, with the literature at our command, to recognize it among the vast number of described species, we sent a specimen to Dr. David Sharp of England, who kindly gave us the following references quoted from the "Memoirs on the Coleoptera of the Hawaiian

Islands," by T. Blackburn and D. Sharp, a work which we could not consult:

Genus CXXVI. *Sphenophorus* Mun. Cat. VIII, p. 2646, 360. *Calandra obscura*, Boisd. Voy. Astr. II, p. 448. Fairm. Rev. Zool., 1849, p. 474.

Ins. Oahu. Introduced. Tahiti. New Ireland. In the stems of banana, on the mountains. This insect is apparently omitted in the Munich Catalogue of Coleoptera.

Dr. Sharp further wrote that his original identification of the species was made from Boisdual's deficient description and from Fairmaire's paper, and from a specimen so named by Jekel, in the British Museum collection. After receiving our specimen (which was a male, while the Jekel specimen was a female), Dr. Sharp found both sexes of the same species among some specimens recently sent him from Tahiti by Mr. J. J. Walker, who found them under the bark of a species of *Musa* (banana).

The species belongs to Schoenherr's and Lacordaire's genus *Sphenophorus*, and should be included in the group having the third tarsal joint large and pubescent beneath. The disintegration of this large genus, already indicated by Schoenherr and more strongly advocated by Lacordaire, has been accomplished in more recent times by Dr. Horn, Dr. Le Conte, Mr. Pascoe, and especially by Mr. Chevrolat. The work of the latter author (published in the *Ann. de la Soc. Ent. de France*, 1882 and 1885, partly after Chevrolat's death, the whole being evidently incomplete and unfinished) is of such unsatisfactory and unsystematic character that the generic determination of a single species is next to impossible without having access to the types.

Although we cannot place our species in any of the numerous genera erected by Chevrolat at the expense of the old genus *Sphenophorus*, it seems best to leave the generic determination to a future monograph of this group, and we prefer to leave the species in that genus under which it was originally described. [In order to facilitate the recognition of this species, which has been described in publications not readily accessible, Prof. Riley appends a description of the imago by Mr. Schwarz, which is only intelligible to entomologists.]

The structure of the head, mouth parts, and the transverse folds of the segments of the larva (Fig. 1c) agrees with that of *Sphenophorus robustus*, described and figured by us in our Annual Report for 1881-82 (p. 141-142, pl. VIII, Fig. 2a), but is distinguished at once by the rather sudden enlargement of abdominal segments 4, 5, and 6, the fifth being especially large and bulging. In this respect it resembles the larva of *Sphenophorus litatus* as described and figured by Ch. Coquerel (*Ann. Soc. Ent. France*, 1849, p. 455-456, Plate VIII, Fig. 1112), but in the latter species the enlargement of the abdominal segments is said to be gradual. The thoracic and anterior abdominal spiracles are as in *S. robustus*; the sixth and seventh pairs are, however, more dorsally placed, and the eighth pair is entirely dorsal, somewhat obliquely placed and as large as the prothoracic spiracles. The last segment is broadly truncate at middle of apex, the truncature being accompanied each side by a shorter oblique truncature. The four angles thus formed are marked each by two long setæ, one placed above the other.

The pupa (Fig. 1d), while resembling in general shape that of *S. robustus*, is distinguished by the stronger armature of the head. The two setigerous frontal tubercles are very prominent and surrounded anteriorly by a crescent-shaped ridge, in front of which is a small setigerous tubercle. The tubercles near the base of the beak are also more prominent. Near the hind angles of the thorax are each side two rather large blunt tubercles, and another obliquely placed pair of smaller tubercles on each side of the disc toward the anterior angles; two small tubercles are also at the middle of the anterior margin. The armature of the pygidium (seventh dorsal abdominal segment) consists of a single row of rather large setigerous tubercles, and the last ventral segment is truncated at tip, terminating each side into a bisetose cone-like process. The prothoracic spiracles are very large and conspicuous.

Judging from the specimens of sugar-cane received from Mr. Wickson, the damage caused by the beetle must be very great, since the stalks were completely riddled with the galleries of the larvæ, several of the latter being in a piece of cane about eight inches long. The galleries (Fig. 2) are wide when compared with the diameter of the larva, and not long, mostly running longitudinally, but some also across the cane. They are filled with macerated fiber which the larva apparently pushes behind itself. When ready to pupate, the larva somewhat enlarges the channel and forms a coarse cocoon of fiber in which the transformation takes place. The outside of the infested cane (Fig. 2) shows several small round holes which probably represent the place where the egg has been inserted by the parent beetle, and several large, oblong openings, which are probably the exit-holes of the emerging beetle.

As we received no other notes on the natural history of the species, we can say nothing as to time and mode of oviposition, the duration of the larval state, hibernation, etc. The only other information is that contained in the quotation from Blackburn and Sharp's Memoir on the Hawaiian Coleoptera, viz.: That the species attacks also banana stems, and further that it has been introduced (no doubt with sugar-cane or banana plants) from other islands in the Pacific ocean.

In the absence of any more definite informa-

*We are under obligation to Dr. Riley for the opportunity to reproduce the account of this interesting insect which affects our island neighbors, from "Insect Life," the official publication of the Division of Entomology, U. S. Department of Agriculture.

tion, it is difficult to suggest any preventives or remedies for this pest. Since the larva apparently works in the lower part of the canes and probably also in the roots, many larvae will no doubt remain in those parts of the plants after the rest of the cane has been cut and carried off to the sugar-houses. The remaining stubble should be carefully examined and all infested canes destroyed. The same should be done with all diseased or dying banana plants.

Since neither sugar-cane nor bananas are cultivated in California, there is little danger that this Sphenophorus will become acclimated in that State from the Sandwich islands.

FRUIT MARKETING.

Annual Meeting of the Fruit Union.

As stated in last week's *RURAL*, the annual meeting of the California Fruit Union was held in the new Viticultural headquarters in Platt's hall, beginning on Wednesday, Jan. 16th. P. E. Platt presided; H. A. Fairbank and B. C. Brown, secretaries.

Secretary Fairbank read his annual report, which was published in full in last week's *RURAL PRESS*.

A. Block of Santa Clara moved that the report be received. There was considerable discussion on the printing of the report, and it was finally decided to receive the report and have 1000 copies of it printed in pamphlet form.

The order of business was next discussed, and it was decided to follow out last year's program with the exception that discussion on matters of interest should precede the election of officers.

Senator William Johnston of Richland stated that there were several Eastern fruit dealers present who might be able to give the Union advice on various matters.

Addressess by Eastern Dealers.

Mr. Johnston then named his men, and E. Snow of Boston addressed the meeting. He said that the most remote points required the best fruit, and if good fruit were placed on the market in large quantities in Boston there would be a large demand for it. The judgment of shippers here, he said, should direct them a good deal, and if they found certain lines of fruit in great demand at a place, those are the kinds to ship.

Frank S. Thomas of New York and Chicago said that his firm was the first to take hold of the auction plan of disposing of California fruit in Chicago, and that they had made such a success of it that now they can handle from 400 to 500 carloads a season. The periodical sales gave the shipper an idea as to what to send, where to sell and what to expect in return.

E. L. Goodsell of New York said that, in his opinion, the sale of California fruit in the East was but in its infancy. He had at one time expressed himself to the effect that California could not grow sufficient fruit to supply the United States, but he wished to retract the statement.

Mr. Fry of Chicago was then asked to make a few remarks, but he excused himself.

Frank Ripley of Boston, another fruit dealer, was asked to speak. He took exception in a smiling manner to the several sly allusions to "cultured Boston" made by each of the previous speakers, and argued that if it was culture that had produced such good results from marketing California fruit in Boston, Californians should pray devoutly for New York and other places to be blessed with a little culture. The prospects for California fruit in Boston, he said, were bright, and the peaches of this State can compare favorably with those of Delaware.

There was a long and heated discussion as to whether the directors for the ensuing year should be named in open meeting or nominated by a committee. The subject was finally postponed until later in the session.

Evening Session.

Mr. Fry of Chicago was introduced. He is of the opinion that California fruits will not be sold any other way than by auction in the East. Even now many brokers in Chicago are figuring on California fruits for the next season. The old feeling that one purchaser thought another was getting better prices is entirely removed by the auction system. In answer to a question of Mr. Blowers, he said he believed the passenger-train service was not so beneficial as the special trains. He then recounted the various ways of railroad officials in keeping the fruits late on an average of 24 hours. This delay, when a car is standing still under a hot sun, will do more damage than two days' running. The auction system gave the people of California the advantage of quick sales, and, as a consequence, better prices by selling when the fruit is so much fresher.

Senator Johnston offered a resolution approving of the action of the directors of the California Fruit Union in adopting the auction system to sell its fruits in Eastern markets, believing that it was the feeling of the Union that the system was what they desired.

On the motion of A. T. Hatch, a vote of thanks was tendered to Director Weinstock for his services in connection with the establishment of auction sales of fruit in the East. The meeting resolved to perpetuate the vote by means of a suitable testimonial.

The resolutions were adopted.

A communication from the winemakers and vineyardists was read by the Chair, asking that a committee of the Fruit Union be appointed

to confer with them on the question of taxation of wines. The request was granted and the following named committee was appointed: Wm. Johnston, G. W. Hancock, W. Barter, W. M. Williams, S. Runyon, F. C. de Long, S. J. Stabler and C. W. Reed.

A letter from E. W. Woolsey & Son of Sonoma county, asking to be allowed to co-operate with the Fruit Union, was referred to the Board of Directors.

A Committee on Freight, as follows, was appointed: Hatch, Gregory, Blowers, Anderson and Flickinger.

The balance of the evening session was devoted to a running discussion between various stockholders as to whether the affairs of the Union had been well or ill managed during the past season.

Thursday Morning's Session

The first order was the discussion of resolutions introduced by Drury Melone, the gist of which were that the sense of the convention should be that Porter Bros. should not be retained as Chicago agents and that a large shipper on his own account was not the proper person for a general manager.

These resolutions precipitated again the general subject of the management of the Union for the last year. Agreement was finally reached by the passage of the following, which looks toward dispensing with agents wherever possible:

Resolved, That the Board of Directors be requested to deal directly with the auctioneers whenever possible.

That the "Superintendent of the Fruit-Growers' Union should not be a shipper on his individual account," was the occasion for considerable discussion, and was referred to the Board of Directors.

A series of resolutions introduced by Mr. Buckingham, instructing the board to issue monthly reports of the condition of Eastern fruit markets, was referred to the Board of Directors.

The next order of business was the election of nine directors. The names of L. W. Buck, John Reed, Jr., S. Runyon, H. Weinstock, J. Z. Anderson, W. H. Atkinson, T. H. Buckingham, E. J. Gregory, P. E. Platt, R. B. Blowers, Webster Treat, A. T. Hatch, O. W. Reed, B. T. McKevitt, E. R. Thurber, S. J. Stabler and John Markley were placed in nomination.

Each stockholder was entitled to one vote for every share of stock, and it took considerable explanation before the correct method of casting ballots was understood.

Mr. Motheral asked if the cumulative plan of voting would be allowed; in other words, if a director having 50 shares, which would give him 50 votes for each of the nine directors, or 450 for the whole, might cast the 450 for one candidate.

The chairman ruled that the cumulative plan would be permitted.

Frank H. Buck and Senator William Johnston were appointed tellers, and the members deposited their ballots as the roll was called.

The balloting did not conclude until 6:30 P. M. The canvassing of the votes was then proceeded with.

At 10 o'clock the canvass showed that five of the old management interest and four of the opposition had been elected, and the former were jubilant, deeming the result a vindication and indorsement of the present administration.

The result of the canvass was as follows: Buck of Vacaville (re-elected), 13,054 votes; Treat of Davisville (re-elected), 7768; Anderson of San Jose (re-elected), 9095; Gregory of Sacramento (re-elected), 8535; Platt of Sacramento (re-elected), 8695; Blowers of Woodland, 9727; Buckingham of Vacaville, 8427; Runyon of Sacramento river, 8882; Weinstock of Sacramento (re-elected), 11,397.

The foregoing nine were, therefore, elected directors. Other votes were as follows: Reed, 6633; Markley, 2382; Hatch, 3397; Stabler, 394; McKevitt, 195; Reith, Jr., 632.

The whole number of shares of stock represented was 11,043.

The London Exhibit

The following by Mr. Gregory was adopted:

Resolved, That the California Fruit Union, representing the fruit-growing and shipping interests of California, express hearty indorsement of the proposed London exhibit; to that end, our representatives in the California State Legislature are respectfully urged to use all honorable means to create and maintain said exhibit in a manner commensurate with the magnitude and importance of the interests represented.

Mr. Buck gave notice that at the next annual meeting he would move to amend the constitution by striking out that clause providing for refunding to members, when they surrender their stock, the amount they shall have paid on their stock.

President Platt gave notice that the Board of Directors would meet at Sacramento on Monday, Jan. 21st. The members of the old board were invited to be present.

The meeting adjourned sine die.

The Dried-Fruit Association.

At the meeting of the California Dried-Fruit Association in the rooms of the State Board of Horticulture, President Hatch occupied the chair and an informal reading of the first annual report of the general manager, General John T. Cutting, was given and followed by a general discussion.

By General Cutting's report it was shown

that he had visited many of the Eastern cities last fall, and everywhere the organization was looked upon with favor.

The opinions expressed as to the advisability of selling dried fruit at auction were about evenly divided, some of the merchants claiming it was the only true way of doing the business, and others that it would unsettle values and throw the whole dried-fruit interest into a chaotic state.

After a thorough investigation of the subject, and in consequence of a lot of California dried fruit being sold at auction in Chicago while he was there, which resulted very unsatisfactorily, he was forced to recommend to the trustees the abandonment of the auction plan, at least for the present.

The manager found Eastern markets, particularly Chicago, oversupplied with California dried fruit, of which the merchants did not appear to know the relative value, but the New York and Philadelphia markets were in better condition.

Dividing the Territory.

General Cutting stated that he had appointed J. K. Armsby & Co. the society's agents at Chicago and Messrs. Chapman and Meehan at New York. The former would embrace all territory east of Denver, Colo., and west of Pittsburg, Pa., and the latter all territory east of Pittsburg, including Philadelphia and Boston. This may seem a large territory for two agencies to operate, but it was deemed advisable to concentrate the business under the control of as few houses as possible, in order to avoid competition.

The first shipment made by the association was on Nov. 10th, and the last Dec. 13th. Between those dates the total shipment aggregates as follows:

	Pounds.
Pitted prunes.....	28,678
Dried grapes.....	92,081
Peeled peaches.....	3,125
Unpeeled peaches.....	97,249
Apples.....	14,157
Prunes, all varieties.....	229,616
Silver prunes.....	21,761
Plums.....	40,977
Pitted plums.....	22,131
Nectarines.....	18,882
Pears.....	549
Raisins.....	35,339
Almonds.....	19,749
Total.....	690,257

The report recommended that greater care be taken in the grading of the fruits, as at present, with few exceptions, California dried fruit is sold in this country ungraded, and therefore brings a lower price than it otherwise would.

In his report General Cutting declared that the dried-fruit market throughout the entire country was never known to be duller than at present or for the past 30 days. When we consider that choice New York State evaporated apples are selling at 4½¢, dried blackberries at 4½¢, choice half Tennessee peaches at 3½¢, and Turkish prunes at 3½¢, in Eastern markets, it is surprising that California products sell as well as they do.

California Fruit Appreciated.

"Does it not demonstrate the fact that California dried fruit is appreciated? In our opinion, if the fruit is properly prepared and the business handled intelligently there is a market at fair prices for all that it is possible to produce."

"The total amount in pounds of dried fruit, nuts and raisins, sent outward over the Southern Pacific and Canadian Pacific railroads during the year 1888 is as follows:

	Pounds.
Dried fruit.....	20,325,230
Nuts.....	924,616
Raisins.....	16,094,349
Total.....	37,253,380

"The Atlantic & Pacific Railway Company has failed to furnish us with the amount forwarded by their line, but from outside sources we learn that the shipments over their lines were about 4,000,000 pounds. If this estimate is correct it makes a grand total for the year 1888 of 41,253,380 pounds."

By direction of the Board of Trustees, the General Manager had engaged the services of W. H. Mantz of San Jose for two months to act for the association in receiving and shipping fruit from that point. He performed his duties acceptably.

Subsequent Proceedings.

The reports of the general manager and secretary having been received, a resolution was adopted tendering the thanks of the association to the trustees and officers for their efforts in behalf of the association, and particularly to General Manager J. T. Cutting, for his indefatigable efforts.

Mr. Goodsell of New York spoke at considerable length concerning the industry in its relation to the Eastern market. He explained the benefits of the auction system, and urged upon the association the advisability of making experiments in this direction. California growers need very much to understand the necessity of properly grading and packing fruit, and until then sales in the East will be irregular, and, to some extent, unsatisfactory. Many questions were put to Mr. Goodsell in relation to the Eastern market, and many important and interesting facts were developed.

Upon reassembling at 1 o'clock, F. L. Ripley of the firm of Blake & Ripley, Boston, said he thought it very important that California growers should learn to put up goods in standard

manner. Until it is possible for them to be sold in the East from sample, little success will attend the auction system. A. G. Freeman and F. G. Thomas of Chicago also spoke regarding the best methods of developing the Eastern trade.

E. B. Blowers of Woodland submitted a resolution, which was accepted as the sense of the meeting, indorsing the plan of an exhibition in London, and advising that application be made to the Legislature for a grant of \$250,000 to insure its success.

On motion of S. J. Stabler of Yuba City, Dr. Handy, A. G. Freeman and J. H. Flickinger were appointed a committee to consult and formulate a plan of packing and grading under the auspices of the association that may answer the purpose of a standard brand.

J. H. Flickinger, S. J. Stabler, I. A. Wilcox, T. H. Buckingham and H. Weinstock were appointed a committee to co-operate with similar committees of other societies on the matter of taxation of vines.

The following gentlemen were elected to serve on the Board of Directors for the ensuing term: A. T. Hatch, R. B. Blowers, W. W. Motheral, H. Weinstock, J. H. Flickinger, J. T. Cutting, I. Jacobs, A. G. Freeman and O. Stevens.

It having been determined to inaugurate a series of meetings throughout the fruit sections of the State for the purpose of common action on the part of growers in disposing of their fruit, the association adjourned.

The Raisin-Makers.

A convention of the raisin-growers of the State met Jan. 19th in the rooms of the State Horticultural Commission, in answer to a call issued to growers, packers and dealers.

The meeting was called to order by B. N. Rowley, who expressed regret that so few had thought fit to attend. He said that the raisins of California were to a very considerable extent taking the place of those imported from Spain, and that, realizing the necessity and importance of systematic and intelligent action to better enable the trade to meet the foreign competition, he thought it wise that some agreement should be arrived at regarding improvement of grades, style of packing and quality of goods.

W. W. Motheral of Tulare thought the grounds of discussion had been well covered by the Dried Fruit Association, and moved that the matter of packing and grading be referred to the directors of that body.

It was also decided to refer the consideration of substituting an American brand for a Spanish emblem to the Dried Fruit Association. The meeting indorsed the plan of a London exhibition and urged that the legislative grant of \$250,000 be made for the purpose of making it a success.

Messrs. Freeman and Goodsell of New York having explained the modes of selling in the East, the convention adjourned sine die.

Squirrel Meeting.

EDITORS PRESS:—A meeting of the farmers and orchardists of Ignacio valley will be held at the Oak Grove schoolhouse on Monday, Jan. 28, 1889, at 1 o'clock P. M., to consider the best methods of ridding the valley of the ground-squirrel pest, and to secure uniformity of action among the citizens to that end. Please do not allow anything to prevent your attending, and bring all your immediate neighbors with you. Also, please bring copies of all valuable recipes for mixing squirrel-poison, and other methods of exterminating the vermin, so that the information may be imparted to all present.

D. F. MAJOR, A. L. BANCROFT, E. RANDALL, C. S. LOUSE, H. P. PENNIMAN, W. W. WHITMAN.

Ignacio Valley, Walnut Creek, Jan. 19th.

THE AGE OF TREES.—Where the zone test can be applied, we know that the age imputed to the tree will not err in the way of excess. A clearly marked ring infallibly denotes a season's growth. Assuming an unfavorable season to have resulted in an unusually thin or perhaps an indistinguishable layer, one year's credit will remain unentered in the tree's automatic ledger. On this basis of computation the following ages have been strictly verified in Germany: In that country, as in Finland and Sweden, the pine and fir have attained to from 500 to 700 years. The greatest ascertained age of the larch (in Bavaria) is 274 years, while the silver fir has reached 248. The oldest known specimen of the holm oak (near Aachenburg) numbered 410 years; while in all the common oaks about 320 years old the heart was beginning to decay. The maximum ages of other German trees—as found by counting the rings—are as follows: Red beech, 245; ash, 170; elm, 136; birch, 209; aspen, 210; and alder, 145 years. The lime, beloved of the Fatherland, generally evades this test. Probably one of the longest standing of all, it is seldom found in a sound condition at an advanced age.

AGRICULTURAL DIRECTORS APPOINTED.—Gov. Waterman has appointed the following directors of Agricultural District, No. 8, composed of Santa Clara and San Mateo counties: J. P. Sargent, vice Ed. Younger, term expired; Wm. Boots, vice S. N. Rucker, term expired; D. J. Murphy, vice Wm. Buckley, failed to qualify.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

EUCALYPTUS PLANTATIONS.—Livermore *Herald*, Jan. 17: Robert Smith has just planted a gum-tree grove of 500 trees on his ranch near Altamont. We hope to see a hundred of our hill farmers do the same this season. They have plenty of practically waste land on which the gum would grow with but little attention. In a few years, 500 trees would supply them with firewood. Moreover, such a grove greatly improves the appearance, and adds to the value of their property. Joseph Brown has such a grove on very light hill-land on his ranch five miles northeast of Livermore, which more than furnishes him with firewood, and has for years. He will soon have plenty to sell to his neighbors, without diminishing the supply. In fact, when the trees are cut down they sprout from the root and grow with greater vigor than ever. A gum in good soil will make a cord of wood in ten years.

Butte.

A BOVINE OSTRICH.—Gridley *Herald*: C. E. Porter, of Central House, recently sold a cow to the Moore's station butcher. While dressing the animal for sale the purchaser found in her stomach 1½ pounds of shingle nails, a tablespoon and 16 inches of barbed wire.

Colusa.

IRRIGATION SURVEY.—Orland *News*: Civil Engineer Grunsky of Sacramento has begun the preliminary survey for canals and works of Kraft Irrigation district. It is proposed to take out water for the present at the junction of the hills with the creek on the north side of Stony creek, on the F. A. Graves place, seven miles northwest of Orland, and in that way secure water for the present season's irrigation. The permanent canal, however, will start from the Black Buttes, on B. N. Scribner's place, and follow the creek down to opposite where the temporary tapping of the creek is made, and then turn into Dry creek. The *News* is informed that parties are ready to take the bonds of this district as soon as they can be issued.

Fresno.

THE WHEAT OUTLOOK.—Expositor, Jan. 16: Capt. James Cottle of Riverdale says that during his long residence in Fresno county he has never seen such a large acreage sown to wheat, nor ever saw the crop look so well at this season. Exclusive of vineyards, he says the country between here and Elkhorn, a distance of 25 miles, is one field of deep green. He says there will be twice as much wheat harvested the coming season as has ever been cut during any preceding year. He places the area sowed to the cereal at 250,000 acres.

Los Angeles.

THE SUGAR BEET.—Pomona *Cor. Chronicle*, Jan. 19: At a mass meeting of the citizens of Pomona and land-owners of this valley this evening, to take steps toward accepting an offer to establish a beet-sugar factory here, providing that 5000 acres of sugar beets are planted hereabout, the attendance was so large that many could not gain admittance to the hall. It was found that an acreage much greater than that asked for will be planted, and the committee of Pomona citizens was instructed to enter into correspondence on the subject at once.

Modoc.

A TIDY STOCK-FARM.—Independent, Jan. 17: Last Friday we paid a visit to the ranch of J. Thad Jones, situated six miles south of Alturas, and found everything in apple-pie order. Mr. Jones has 2000 acres of land under a good, substantial fence. As his business is stock-raising, hay is his principal crop, and last season he put up 1500 tons of hay, and is now engaged in feeding it out to about 1000 head of cattle and quite a number of horses. Among his cattle are two thoroughbred Galloway bulls, also several Shorthorn Durhams, showing that he is endeavoring to raise good stock. Last spring he dehorned 300 head and is so well pleased with the result that he will follow up the work until he has not a horned animal left in his herd. Of horses he has two half-blood Clydesdales and one half-blood Norman stallion. At present he is weaning a number of colts, the progeny of these horses, and a finer lot of weanlings it is hard to find. Mr. J. says the colts from these horses and common-bred mares readily bring him \$100 a head at three years old. His dwelling, barns and other outhouses are models of comfort and convenience.

Placer.

WHAT FRUITS TO PLANT.—The Auburn *Republican* having asked horticulturists what fruits to plant for profit in a 20 acre orchard about Auburn, Penryn and Newcastle: E. B. Silva says plant 10 acres to pears and ten to prunes. E. Booth would set the whole 20 acres in either apricots, peaches or prunes. Jas. E. French said, two acres in table grapes, three in cherries and 15 in peaches. N. R. Peck, five acres in Bartlett pears and the rest in peaches. Wm. Barter and G. D. Kellogg said all in peaches. A. Moger, five acres in Bartlett pears and 15 in peaches. Two others advised a variety of pears, cherries and berries.

RIPE RASPBERRIES.—Record-Union, Jan. 21: There was picked yesterday from the fruit farm of W. R. Strong & Co., at Penryn, fine ripe raspberries in considerable quantity. There are on the vines at the present time ber-

ries in all stages of maturity, from half-grown to fully ripe, and the prospects are that ripe berries will be picked there all winter. The patch from which the berries were picked yesterday has yielded from \$800 to \$1000 per acre the past season. There has not been frost enough in that vicinity this winter to kill the new leaves on the raspberry bushes.

San Bernardino.

REDLANDS' FRUIT-GROWERS' ASSOCIATION.—Citrograph, Jan. 19: The stockholders of the Redlands Fruit-Growers' Association held a meeting Thursday afternoon at which the following gentlemen were elected directors for the first year: Charles R. Paine, F. P. Morrison, H. H. Sinclair, James S. Edwards, James B. Glover, George H. Crafts, C. T. Dean, I. L. Hewitt, and J. S. Hale. The By-Laws were adopted, and meeting then adjourned. At a meeting of the Board of Directors, C. R. Paine was elected President; H. H. Sinclair, Sec'y, and F. P. Morrison, Treas'r; all to hold office for one year.

FERTILIZERS.—Riverside *Press*, Jan. 19: In the matter of fertilizers J. E. Cutter, one of our most practical men, is in favor of the use of barnyard manure, because of its mechanical action on the soil, especially where there is an admixture of clay. L. F. Darling, who has a very fine young Naval grove on Arlington avenue, believes in using sheep-manure, as fresh as possible, and his trees are a thrifty testimonial to the correctness of his theory. H. J. Rudisill, an extended experimenter in citrus culture, believes we should use commercial fertilizers in connection with coarse manures, as the former will give quick results in fruit. He says fertilizers should be applied about twice a year, so as to furnish constant food for the voracious roots. D. W. McLeod, who has charge of the Riverside Land and Improvement Co.'s lands, is using sheep-manure almost exclusively. His experience with commercial fertilizers is not satisfactory. J. E. Cutter desires us to add that he has used the commercial fertilizers in connection with stable and sheep manure and obtained very satisfactory results. He says that sheep manure, when fresh, is one of the best fertilizers that can be used, but when old it is no better than so much punk, all the valuable elements having been washed out.

VINEYARD FIRE-SLED.—We saw a contrivance yesterday for use in vineyards, to dispose of prunings. It consists of a sled carrying a sheet-iron box, which is drawn by horses through the rows, the cuttings being cleaned up and thrown into the box as it goes. These are lighted and rapidly burnt. It is a queer-looking affair, as the horses pull it flaming along. Some say five, some say ten acres a day can be cleared of brush with this device, a team of horses and two men. It will probably cost about \$1 an acre to go over a vineyard in this way.

San Diego.

HONEY SHIPMENT.—San Diego *Sum*, Jan. 9: A. Wentzschler to-day shipped 14 tons of honey to San Francisco. The crop is very large and more than usual is being sent East. The price for extracted honey is from 4 to 5½ cents a pound; for the comb it is from 5 to 10 cents.

PROGRESS IN SAN JACINTO VALLEY.—Sun, Jan. 11: H. O. Ashenfelter of San Jacinto was in town to-day. He gives a most favorable statement of progress in the fertile back country. "Last year the farmers of San Jacinto valley had only 16,000 acres in grain, but this year the acreage in wheat and barley is 30,000," said Mr. Ashenfelter. "The acreage in fruit trees will also be largely increased this year. One man is setting 320 acres to deciduous trees and vines, and another is planting 80 acres to oranges, while one rancher is planting olive trees on 350 acres. At a low estimate 2000 acres will be planted in fruit trees, citrus and deciduous, and vines this season. The Hemet Valley Co. is improving a 300-acre tract by planting orange and other varieties of fruit trees. The county road up the mountains to this land will be finished by March 1st. In the artesian belt, land-prices range from \$60 to \$100 per acre, and the purchaser given the easiest terms. Choice mesa land is worth from \$25 to \$75 per acre. Settlers are coming in all the time and land is being bought for homes instead of speculation. San Jacinto lime has knocked out Santa Cruz in Los Angeles and we are now filling an order from that city for 2000 barrels, and are sending out on an average 120 carloads of freight per month, including shipments of wood to Pasadena and Los Angeles. We are also filling large orders for hay and grain."

STORAGE RESERVOIR IN PROSPECT.—Mr. Ashenfelter also gave some information as to the big reservoir, on which the Lake Hemet Co. will begin work in March. The dam is to be built of solid granite, across a gorge in the mountains, and at an elevation of more than 4000 feet above sea-level. This rocky gorge is only 25 feet wide at the bottom, and at a height of 140 feet the distance across is but 150 feet, so that the cost of construction will be reduced to the minimum. A full shipload of cement is in San Diego awaiting an order for shipment to the reservoir site, to which it can be transported from San Jacinto via the new county road. There is an abundance of granite at hand, and the only expense to obtain it will be the quarrying and handling. It is calculated that this dam will hold in reserve 6,000,000-000 gallons of water or 9000 miners' inches, sufficient to irrigate 100,000 acres of land; and

as the watershed embraces an area of 200 square miles, taking in a number of mountains whose tops are snow-clad during most of the year, there is no question as to the unfailing supply of pure, soft water.

EL CAJON NOTES.—Cor. Union: More than 1000 acres have been sown to wheat. There will probably be from 1500 to 2000 acres devoted to this crop, and an equal area to barley. Most of the wheat, I am informed, will be cut for grain and not for hay, as was done last year. The leading industry of El Cajon is the raisin grape, there being some 3000 or 4000 acres in vineyards, but much grain is also raised here. J. T. Gordon, who planted some 2500 orange trees last season, has had remarkable success with them. Out of the entire lot he has lost but five trees, and these were taken by gophers. El Cajon is getting to be quite famous for fine horses. Besides the excellent breeds of Ben Hill and Mrs. Cowles, Uri Hill has a number of beautiful Normans, equal to the best Eastern horses of that name.

San Joaquin.

FIRE IN THE TULE.—Stockton *Independent*, Jan. 18: There was a pretty display of fireworks in the west last evening just after sunset. The whole western sky, or rather the clouds which covered it, was ablaze with the reflection of an extensive fire which was raging in the dry tules near the river, about ten miles west of the city. The rain, which began to fall about half-past six o'clock, put an end to the display by putting out the fire.

Santa Cruz.

JANUARY BLOSSOMS.—Santa Cruz *Courier-Item*, Jan. 19: The gardens about town, notwithstanding the rather constant rains, are looking in good order, and are fragrant with violets, mignonettes, heliotrope and magnolia; there are a few roses, with promise of many more. The rose hedge on the Church-street side of F. A. Hihn's place is blooming quite vigorously. A casual count of the different sorts of flowers blooming in this and adjoining gardens, on Saturday, January 12th, showed 30 varieties besides those noted above. Among these were begonias, callas, scarlet salvias, nasturtiums, camellia japonicas, quince japonicas, daffodils, China New Year lilies, marguerites and others. From Mr. Hihn's place there was picked a second crop of June apples on the 1st of January. On Locust street a Lamarque rose, which clambers nearly to the top of the house, is white with buds and blossoms, while the odor of violets is everywhere.

NURSERY STOCK IMPORTED.—An immense consignment of fruit trees, fruit-bearing shrubs and rhubarb plants arrived in Santa Cruz on Saturday from a nursery at Walla Walla, W. T., in charge of Charles Russell Jr. and J. D. Wallace of Walla Walla, who were here to receive them and to distribute them to the various consignees. On Saturday nearly every farmer's wagon that left town had its load of northern fruit trees, and these will probably soon be adding their quota to the fruit crop of the county. In and about Santa Cruz there were distributed 20,000 trees of the following varieties and in the following order, as regards proportion, the first-named being the greatest in number: Prunes, apples, apricots, plums, nectarines, cherries, pears, peaches and a few others. There were also 20,000 fruit-bearing shrubs and vines taken here as follows: Gooseberry, currant, blackberries, raspberries, strawberries and rhubarb plants. These represent \$4300. In Watsonville there were distributed 30,000 trees, shrubs and vines in about the same proportions, at an aggregate cost of \$3200, making a total for the county of 70,000 trees, etc., at a cost of \$7500, or an average of about 10½ cents apiece.

Shasta.

GREEN PEAS.—Redding *Democrat*, Jan. 16: The latter part of last week John George placed on exhibition in the show-window of the Dooley restaurant several green pea-vines with numerous blossoms and well-filled pods clinging to them. More vines can be seen growing in his garden at the south end of California street. And this in mid-winter in Northern California!

Sonoma.

ORANGES.—Petaluma *Argus*, Jan. 19: On Tuesday last I. G. Wickersham gave us a bag of delicious oranges. In size, color and flavor they were equal to any that have been offered in the market this season. It proves what we have long contended for—good oranges can be raised this side of Riverside and outside of Oroville. These were raised 12 miles east of here, at the foot of Sonoma mountains, by Col. W. K. Rogers, who sent a box to Mr. Wickersham.

EXPANDING NURSERIES.—Santa Rosa *Republican*, Jan. 17: R. W. Bell, successor to L. Burbank in the general nursery business, informs us that in addition to lands purchased and leased from Mr. Burbank, he has leased from Mr. A. T. Davidson, for a term of four years, 22½ acres, one mile west of town, and is preparing to plant the whole in nursery stock. The soil is a strong, loose loam, well adapted to the nursery business. Mr. Bell now employs 16 hands, and has more engaged for next week. By employing reliable workmen and giving more room than usual to each tree, he confidently expects to raise stock equal to any in the world.

Tehama.

YOUNG HORTICULTURISTS.—Red Bluff *Sentinel*: About a year ago Warren N. Woodson purchased ten acres, Will Lewis and Doc Fuller five acres each, and subsequently Frank

Cadwalader ten acres, of the Berendos tract in Antelope valley, two miles east of town, and planted the ground to fruit trees and vines. Subsequently, Mr. Woodson bought Fuller's tract and George K. Bingham purchased ten acres of C. A. Williams' 20-acre tract. Last fall Miss Nettie Olendorf bought ten acres of the Reed tract, and recently Dillon and Nellie Dodson bought ten acres of the old Clark tract from Gen. Chipman. Messrs. Woodson, Lewis, Cadwalader and Bingham's trees and vines planted last year are growing nicely, only about five per cent having died. Mr. Woodson set out 1800 Kelsey plums, 100 White Adriatic figs, 50 oranges and 100 of various fruits for family use. Mr. Lewis put out cling-stone peach, orange, lemon and 50 other varieties of trees. Cadwalader planted the whole ten acres to almonds. Mr. Bingham's ten acres are planted with pears, peaches, prunes and a few other varieties. L. C. Paris is now planting 300 Bartlett pears, 300 peaches and 100 trees of other varieties. Nettie Olendorf will plant 900 French prunes. Dillon and Nellie Dodson will plant 300 Picholine olives, 300 White Muscat grapes and 100 White Adriatic figs, and one acre of blackberries.

GRAIN CROP.—Sentinel, Jan. 19: Maj. J. S. Cone, Jno. C. Tyler and P. C. Crumbaugh, three large, representative wheat-growers, say they never saw a finer outlook for a large grain crop in Tehama county. Some of Mr. Tyler's wheat is so thick and tall that he is now pasturing it, to prevent it growing so rank that it will fall down before it is ripe enough to harvest.

LIVE-STOCK THRIVING.—Stockmen tell us that it matters not what kind of weather we may have the remainder of the winter, cattle, horses and sheep will come out next spring in fine condition. Sheep are doing particularly well, and wool-growers look for, and will have, a very fine spring clip.

Tulare.

IRRIGATION BONDS.—Delta: The directors of Alta Irrigation district have called an election for February 15th for the purpose of voting bonds in the sum of \$675,000, which will be a debt of only \$2.50 per acre for the lands in that district. If the contemplated improvements (including the purchase of present works) can be made for that sum, we would like to see several other districts in Tulare county.

WINTER SPECIMENS.—Tulare *Register*, Jan. 15: Samples of Irish potatoes, volunteer wheat and burr clover in blossom, from W. G. Daunt, who lives in the foothills of this county, were brought to the Register office yesterday, to show what can be done on the upper Tule in the middle of a Tulare winter. The potatoes were dug on the 13th of this month and are large, fine ones, indeed. Mr. Daunt also gathered ripe tomatoes from his vines on the 14th.

DOG DISTEMPER is prevalent throughout this valley. Most of the best dogs in Tulare have it or have had it. Several very fine pups have died with it. Of the 25 thoroughbred dogs at the Bakersfield field-trial, about 20 were unable to go out last week because of distemper.

Yuba.

PAYING ORANGE TREES.—Marysville *Appeal*: Mrs. Karr's orange crop from the trees in the grounds of her residence, on Fifth and Sixth streets, is entirely picked. The ground covered by the trees in bearing, little over 30 in number, is less than one-third of an acre, and from these Mrs. Karr sold to J. H. Marcuse of this city 17,500 oranges, for which he has paid her \$306.25. She reserved the fruit of four or five trees for her own use. The oranges were of large size and good flavor. They were all free from signs of scale, as are all of the trees in her yard. Here is a practical demonstration of the profit to be obtained from orange culture in this locality. Mrs. Karr's trees are seedlings, and not in any way specially favored.

PLANTING AT COLMENA.—C. A. P. dispatch, Jan. 17: A contract was to-day signed with a nurseryman at Los Gatos for planting 30 acres in orange trees at Colmena, on the line of the California & Oregon railroad, six miles south of Marysville. It is strong testimony of his faith in citrus culture here that he supplies the trees and will get no returns until they come of bearing age, when he will have an interest in the orchard. Independently of this enterprise, the prospectus is out for the incorporation of a company to plant 100 acres of orange trees during the present season in the Colmena colony. The capital stock is \$100,000, divided into 1000 shares of \$100 each. Four hundred and fifty shares have already been subscribed. Land is supplied at \$70 an acre, and water for irrigation is to be obtained by a pump and wells. These are the first undertakings to grow oranges on a large scale in this neighborhood, though the profits from orange culture in a small way have always been large here. There is a large capital at the back of both enterprises.

ARIZONA.

VOLUNTEER WHEAT.—Phoenix *Gazette*: Major Evans has left at our office a large bunch of volunteer wheat which measured 32 inches in length, containing full heads and approaching ripeness. The grain was taken from the Utley farm, 4½ miles northeast of Phoenix. It is a remarkable showing for this season, as it will be remembered that it is a volunteer crop and has had neither attention nor water, and we are informed that there is a very large field of this grain growing on the farm.

Proposed Election Law.

Following is the full text of the law proposed by the Federated Trades for adoption in this State and urged as a remedy for existing political corruption:

SECTION 1. All ballots cast in elections for public officers within this State shall be printed and distributed at public expense, as hereinafter provided. The printing of ballots and cards of instruction for the electors in each county, and the delivery of the same to the election officers, as provided in Section 18 of this Act, shall be a county charge, the payment of which shall be provided for in the same manner as the payment of other county expenses.

SEC. 2. Any convention, as hereinafter defined, held for the purpose of making nominations to public office, and also electors to the number hereinafter specified, may nominate candidates for public offices to be filled by an election within the State. A convention, within the meaning of this Act, is an organized assemblage of delegates representing a political party which at the last election before the holding of such convention polled at least three per cent of the entire vote cast in the State, county, district or other political divisions for which the nomination is made.

SEC. 3. All nominations made by any such convention shall be certified as follows: The certificate of nomination, which must be in writing, shall contain the name of each person nominated, his residence, and the office for which he is nominated, and shall designate the party or principle which such convention represents. It shall be signed by the chairman and secretary of such convention, who shall add to their signatures their respective places of residence, and make oath before an officer authorized to administer the same that the matters stated in such certificate are true to the best of their knowledge and belief, and a certificate of the oath shall be annexed to the certificate of nomination.

SEC. 4. A candidate for public office may be nominated otherwise than by a convention in the manner following: A certificate of nomination containing the name of the candidate to be nominated, with the other information required to be given in the certificates provided for in Section 3 of this Act, shall be signed by electors residing within the district or political division for which candidates are to be presented, equal in number to at least one per cent of the entire vote cast at the last preceding election in the State, district or political division for which the nomination is to be made; provided that one thousand signatures shall be sufficient when the nomination is for an office to be filled by the electors of the entire State, and that one hundred signatures shall be sufficient when the nomination is for an office to be filled by the electors of a district or political division less than the State in extent. Said signatures need not all be appended to one paper. One of the signers of each such certificate shall swear that the statements therein made are true to the best of his knowledge and belief, and the certificate of such oath shall be annexed. Such a certificate, when made as above prescribed, shall have the same effect as a certificate or nomination made by a party convention.

SEC. 5. Certificates of nomination shall be filed with the Secretary of State for the nomination of candidates for offices to be filled by the electors of the entire State or of any district or political division containing more than five counties. For all other nominations to public offices certificates of nomination shall be filed with the clerks of the respective counties wherein the offices are to be filled by the electors, and where the district or political division embraces more than one county such certificates must be filed with the clerks of each county in said district or political division.

SEC. 6. No certificate of nomination shall contain the name of more than one candidate for each office to be filled. No person shall join in nominating more than one nominee for each office to be filled, and no person shall accept a nomination to more than one office.

SEC. 7. The Secretary of State shall preserve in his office all certificates of nomination filed therein under the provisions of this Act, and each County Clerk shall preserve in his office all certificates of nomination filed therein under the provisions of this Act.

SEC. 8. Certificates of nomination required to be filed with the Secretary of State shall be filed not more than sixty days and not less than forty days before the day fixed by law for the election of the persons in nomination. Certificates of nomination required to be filed with the County Clerks shall be filed not more than forty nor less than twenty days before the day of election.

SEC. 9. Not less than thirty days before an election to fill any public office the Secretary of State shall certify to the County Clerk of each county within which any of the electors may by law vote for candidates for such office, the names and the description of each person nominated for such office, as specified in the certificate of nomination filed with the Secretary of State.

SEC. 10. At least ten days before an election to fill any public office the County Clerk of each county shall cause to be published in at least two newspapers within the county the nominations to office certified to him by the Secretary of State, and also all those filed with the County Clerk. He shall make not less than two such publications in each of such newspapers before election day, one of such publications being made upon the last day upon which such newspaper is issued before the day of election. Such publication shall be made in two newspapers representing the political parties that at the last preceding election cast the largest and the next to the largest number of votes. The lists of nominations published by the County Clerks of the respective counties shall be arranged in the order and form in which they will be printed upon the ballot.

SEC. 11. Any person whose name has been presented as a candidate may, before the making of the publication of the nominations prescribed in Section 10 of this Act, cause his name to be withdrawn from nomination, by filing with the Secretary of State and the County Clerk his request in writing, signed by him and acknowledged before an officer qualified to take acknowledgments of deeds, and no name so withdrawn shall be certified by the Secretary of State or printed upon the ballots.

SEC. 12. Whenever a proposed constitutional amendment or other question is to be submitted to the people of the State for popular vote, the Secre-

tary of State shall duly, and not less than thirty days before election, certify the same to the clerk of each county of the State, and the clerk of each county shall include the same in the publication provided for in Section 10 of this Act.

SEC. 13. Except as in this Act otherwise provided, it shall be the duty of the County Clerk of each county to provide printed ballots for every election for public officers in which electors or any of the electors within the county participate, and to cause to be printed in the appropriate ballot the name of every candidate whose name has been certified to or filed with the County Clerk in the manner provided for in this Act. Ballots other than those printed by the respective County Clerks according to the provisions of this Act shall not be cast or counted in any election. Nothing in this Act contained shall prevent any voter from writing upon his ballot the name of any person for whom he desires to vote for any office, and such vote shall be counted the same as if printed upon the ballot.

SEC. 14. All the ballots shall contain the name of every candidate whose nomination for any office specified in the ballot has been certified to and filed according to the provisions of this Act, and no other name. The names of candidates nominated by each party shall be grouped together upon the proper ballot, and each group shall be headed by the name of the political party by which the candidates comprising said group were placed in nomination. There shall be a margin on the right-hand side of the names at least half an inch wide, and a reasonable space between the names to be printed thereon, so that the voter may clearly indicate, in the way to be hereafter pointed out, the candidate or candidates for whom he wishes to cast his ballot. Whenever any question is to be submitted to the vote of the people it shall also be printed upon the ballot in such manner as to enable the electors to vote upon the question in the manner hereinafter provided.

SEC. 15. All ballots when printed shall be bound in stub-books of two hundred ballots each, and both the ballots and the corresponding stubs shall be numbered consecutively in each county. A record of the number of ballots printed shall be kept by the respective County Clerks.

SEC. 16. The County Clerk of each county shall provide for each election precinct in the county one hundred ballots for every fifty or fraction of fifty electors registered at the last preceding election in the election precinct.

SEC. 17. Whenever it shall appear by affidavit that an error or omission has occurred in the publication of the names or description of the candidates nominated for office, or in the printing of the ballots, the Superior Court of the county, or a judge thereof, may, upon application by any elector, by order, require the County Clerk to correct such error, or to show cause why such error should not be corrected.

SEC. 18. Before the opening of the polls at any election within any county, the County Clerk of the county shall cause to be delivered to the Boards of Election of each election precinct which is within the county, and in which the election is to be held, at the polling-place of the election precinct, the proper number of ballots of the kind to be used in the election precinct.

SEC. 19. At the same time and in the same manner as inspectors and judges of election are now appointed in this State, two ballot clerks for each election precinct in the State shall be appointed, whose duty it shall be to have charge of the ballots on the day of election and to furnish them to the voters in the manner hereinafter provided. Such ballot clerks shall possess the same qualifications and shall be paid the same compensation as inspectors of election. In making the appointments of such ballot clerks, one of them shall be taken from the political party that polled the largest number of votes at the last preceding election, and the other from the party that polled the next largest number of votes at such election.

SEC. 20. All officers upon whom is imposed by the law of this State the duty of designating polling-places shall cause such polling-places to be suitably provided with a sufficient number of places, booths or compartments at or in which voters may conveniently mark their ballots, so that in the marking thereof they may be screened from the observation of others, and a guard-rail shall be so constructed and placed that only such persons as are inside said rail can approach within six feet of the ballot-boxes and of such booths and compartments. The arrangements shall be such that neither the ballot-boxes nor the box-booths or compartments shall be hidden from the view of those just outside the said guard-rail. The number of such voting-booths or compartments shall not be less than one for every seventy-five electors qualified to vote in the precinct. No person other than electors engaged in receiving, preparing or depositing their ballots shall be permitted to be within said rail, except by authority of the Board of Election, and then only for the purpose of keeping order and enforcing the law. Each of said voting-booths or compartments shall be kept provided with proper supplies and conveniences for marking the ballots.

SEC. 21. Any person desiring to vote shall give his name and address to one of the ballot clerks, who shall then in an audible tone of voice announce the same, and if the other ballot clerk finds the name on the register he shall in like manner repeat the name and address, and the voter shall be allowed to enter the place inclosed by the guard-rail as above provided. The ballot clerk shall give him one, and only one, ballot, upon which both ballot clerks shall have first indorsed their names or initials.

SEC. 22. On receipt of his ballot the elector shall forthwith, and without leaving the inclosed space, retire alone to one of the places, booths or compartments provided to prepare his ballot. He shall prepare his ballot by marking a cross after the name of the person or persons for whom he intends to vote—thus, X; and in case of a constitutional amendment or other question submitted to the vote of the people by marking in the appropriate margin a cross [X] against the answer which he desires to give. Before leaving the voting-booth or compartment, the elector shall fold his ballot, without displaying the marks thereon, in the same way it was folded when received by him, and shall keep it so folded until he has voted.

SEC. 23. Not more than one person shall be permitted to occupy any one booth at one time, and no person shall remain in or occupy a booth longer than may be necessary to prepare his ballot, and in no event longer than five minutes.

SEC. 24. Any voter who shall accidentally spoil a ballot may return such spoiled ballot to the ballot clerk and receive another one in its place. All the

ballots thus returned shall be immediately canceled, and, with those not distributed to the voters, shall be returned with the register lists and ballots as now provided in Section 1264 of the Political Code. Every elector who does not vote the ballot delivered to him shall, before leaving the polling-place, return such ballot to the ballot clerks having charge of the ballots, who shall immediately cancel the same and return them in the same manner as spoiled ballots.

SEC. 25. Any elector who declares under oath to the ballot clerks that he cannot read, or that by reason of physical disability he is unable to mark his ballot, shall, upon request, receive the assistance of any one or two of the officers of election that he may choose, in the marking thereof, and such officer or officers shall certify on the outside thereof that it was so marked with his or their assistance, and shall thereafter give no information regarding the same.

SEC. 26. No member of any Board of Election shall deposit in the ballot-box any ballot upon which the names or initials of the ballot clerks, as hereinbefore provided, do not appear.

SEC. 27. The County Clerk of each county shall cause to be printed in large, clear type, on cards, instructions for the guidance of electors in obtaining and marking their ballots. He shall furnish twelve such cards to the Board of Election in each election precinct in his county, at the same time and in the same manner as the printed ballots. The Board of Election shall post at least one of such cards in each booth or compartment provided for the preparation of ballots, and not less than three of such cards at other places in and about the polling-places on the day of election. Sections 30 and 32 of this Act shall also be printed on each of said cards.

SEC. 28. In canvassing the votes, any ballot which is not indorsed with the names or initials of the ballot clerks, as provided in this Act, shall be void and shall not be counted; but each such ballot must be preserved and returned with the other ballots.

SEC. 29. No person shall falsely make or fraudulently deface or destroy any certificate of nomination or any part thereof, or file any certificate of nomination, knowing the same or any part thereof to be falsely made; or suppress any certificate of nomination which has been duly filed or any part thereof; or forge or falsely make the official indorsement on any ballot, or make any mark or indorsement on any ballot or stub by which the ballot can be distinguished from other ballots. Every person violating any of the provisions of this section shall be deemed guilty of felony, and upon conviction thereof shall suffer punishment by imprisonment in the State Prison for not more than five years nor less than one year.

SEC. 30. No person shall, during an election, remove or destroy any of the supplies or other conveniences placed in the voting booths or compartments as provided in this Act for the purpose of enabling the voter to prepare his ballot. No person shall, during an election, remove, tear down or deface the cards printed for the instruction of voters. Every person willfully violating any of the provisions of this section shall be deemed guilty of a misdemeanor.

SEC. 31. Any public officer upon whom any duty is imposed by this Act who shall willfully neglect or omit to perform such duty shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by imprisonment in the County Jail for not more than three years, or by a fine not exceeding five thousand dollars, or by both such fine and imprisonment.

SEC. 32. No officer of election shall disclose to any person the name of any candidate for whom any elector has voted. No officer of election or any other person shall do any electioneering on election day within one hundred feet of any polling-place. No person shall remove any ballot from any polling-place before the closing of the polls. No person shall apply for or receive any ballot at any election precinct other than that in which he is entitled to vote. No person shall show his ballot after it is marked to any person in such a way as to reveal the contents thereof, or the name or names of the candidate or candidates for whom he has marked his ballot, nor shall any person, except a member of the Board of Election, receive from any voter a ballot prepared by such voter, or examine such ballot or solicit the voter to show the same. No person shall ask another at a polling-place for whom he intends to vote. No voter shall receive a ballot from any other person than one of the ballot clerks, nor shall any other person than a ballot clerk deliver a ballot to such voter. No voter shall deliver to the Board of Election, or to any member thereof, any ballot other than the one he has received from a ballot clerk. No voter shall place any mark upon his ballot by which it may be afterward identified as the one voted by him. Whoever shall violate any provision of this section shall be deemed guilty of a misdemeanor, and upon conviction thereof shall be punished by imprisonment in the County Jail for not more than two years, or by a fine not exceeding one thousand five hundred dollars, or by both such fine and imprisonment.

SEC. 33. In all counties, or cities and counties, in this State having a Registrar of Voters and a Board of Election Commissioners, the powers conferred and the duties imposed by this Act upon County Clerks and other officers in relation to matters of election and polling-places shall be exercised and performed by such Registrar of Voters and Board of Election Commissioners.

SEC. 34. All Acts and parts of Acts inconsistent with the provisions of this Act are hereby repealed.

SEC. 35. This Act shall take effect on the 1st day of July, 1889.

FLORIDA EXPOSITION.—We have received a complimentary invitation to attend the Florida International and Semi-Tropical Exposition which will open at Ocala, Florida, Jan. 29, and close May 1, 1889. Geo. W. Wilson is president and J. O. Clarke secretary. It is to be a grand display of semi-tropical products. The American Pomological Society will meet at Ocala Feb. 20th to 22d, according to announcement already printed in the RURAL. All who go East this winter should note these facts.

Two well-known Los Angeles citizens have been arrested on a charge of making fraudulent entries of Government land.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING JAN. 8, 1889.

- 395,804.—GATE—Jos. Albers, Wells, Ogn.
395,866.—PILE COVERING—Anderson & Elias, S. F.
395,876.—CHICKEN-BROODER—L. C. Byce, Petaluma, Cal.
395,957.—PULVERIZER AND AMALGAMATOR—E. Derbec, S. F.
395,700.—HAND-GUARD FOR ROCK DRILLS—B. Giovanni, S. F.
395,901.—CAR AXLE—W. Hayes, Los Angeles, Cal.
395,779.—FEED-WATER PURIFIER—A. Heberer, Alameda, Cal.
395,780.—STEAM BOILER—A. Heberer, Alameda, Cal.
395,831.—GANG PLOW—Wm. Holloway, Gilroy, Cal.
395,911.—POP SAFETY VALVE—F. A. Miller, Oakland, Cal.
395,847.—HAME TUG—G. W. Moliere, Ocean View, Cal.
395,916.—RAISIN-STEMMER—C. L. North, Fresno, Cal.

NOTE.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

Kentucky Shorthorn Cattle.

Particular attention is called to a sale of well-bred Shorthorn cattle to be made by Messrs. Goff & Prewitt of Winchester, Clark county, Kentucky, at the Bay District track, on Tuesday of next week, January 29th, at 11 o'clock A. M. A large portion of the cattle to be sold are descendants of imported Young Mary and imported Young Phyllis, two cows that have done as much to improve the cattle of the United States as any imported; in fact, probably no imported cow can show as many premium animals among her offspring as imported Young Mary, and, likely, next to her comes imported Young Phyllis. Representatives of other well-established families will also be disposed of at this sale. Among them are ten animals, including a two-year-old bull, which took premiums the past season in Kentucky. The pedigrees of the cattle are all recorded, and we are assured that no cow or heifer thought to be a doubtful breeder has been brought.

Mr. Goff was elected editor of the *American Shorthorn Record* by an association of leading breeders from Kentucky and other States, and both he and Mr. Prewitt, as well as their forefathers, have been identified with the cattle interest of Kentucky since their boyhood. They bring letters of introduction from Speaker Carlisle, U. S. Senator Blackburn, Congressman W. C. P. Breckenridge and others. We wish them a successful sale, for they bring a class of stock which would be a credit in any country.

Buena Vista Rancho.

This noted tract of land, containing 7725 acres lying next to the Santa Lucia mountain, along the Salinas river, about three miles from Salinas City, in Monterey county, has been subdivided into small tracts containing from 5 to 100 acres each.

On the 29th inst a grand excursion will be made to this rancho and an auction sale of tracts of land for three days, commences at the same date. This tract of land is one of the most productive and fertile sections in the State, and the advantages in climate and location make it especially adapted for building homes.

The round-trip ticket to Salinas City and return, good until Feb. 2d, has been put at \$2 50, and conveyances to and from the ranch will be provided free.

INTERIOR IMPROVEMENTS.—The firm of P. A. Buell & Co., proprietors of Enterprise Planing-mill at Stockton, are running on full time and with a good force of men. They are now furnishing mill material for the Southern hotel at Bakersfield, five large buildings in Fresno City, and several large orders for Carson, Nevada, Arizona and New Mexico. During the last year they furnished of manufactured mill material for construction of dwellings to the value of over \$150,000, and the demand for goods promises to be much larger this year.

A SHIPPING FIRM.—The firm of Gregory Bros. & Co. of Sacramento has been continuously in business as the successors of the founders of this produce commission-house since 1852. Mayor Gregory, one of the members of the firm, is one of the directors of the Fruit Union, and has been prominently identified in the shipping of fruit and produce a number of years. This firm has a large trade for California produce and a high reputation as a business house.

KINDLY APPRECIATION.—The San Jacinto Register, noticing the commencement of our 19th year, adds that the PACIFIC RURAL PRESS "to-day is the peer of any agricultural paper in this or any other State. It is a paper that every farmer should have; and we venture the assertion that if once taken he will never be without it."

N. W. Cor. California & Battery Sts.,
SAN FRANCISCO.

Postmasters are requested to be sure and notify us when the paper is not sent from their office. If not stopped in time by the night oversight or other mishap, do us the favor to write again.

THE STOCK YARD.

A Word About Jersey Steers.

EDITORS PRESS:—In your issue of January 5th I find a letter from a well-known San Jose butcher relative to the excellence of Jersey beef. The unqualified statements of that letter in regard to the superiority of Jerseys for beef over all other breeds of cattle were, to me at least, something of a surprise.

I have been in the stock-raising business for some 18 years, and have raised more or less Jerseys ever since they came into prominent notice on this coast. I have dealt in beef cattle for several years, and my experience with Jerseys—either pure-bred or mixed—as beef-producers has been very unsatisfactory. I am not by any means alone in this last assertion.

With no desire to reflect unjustly on either the writer of the letter in question or the real merits of Jersey cattle, still my experience, and the experience of many others, with Jerseys, and the result obtained, have been so very opposite to that set forth in the above-mentioned letter that a few queries pertinent to the subject naturally arise; and it may not be amiss for the benefit of prospective stock-raisers to state a few facts concerning Jerseys as beef-producers.

In the first place, you have probably noticed—what has always been claimed as a point in their favor—that Jerseys are small cattle, and where in my experience I have found one three-year-old Jersey steer weighing 500 pounds, I have found ten of the same age that did not exceed 460 pounds.

Three-year-old steers that dress upward of 700 pounds, as per letter, "having gotten their entire living off the hills back of San Jose," or any other hills as far or farther south, "taking into account how they were raised," are not small steers for any breed to produce.

I have not in my experience seen any such Jerseys as the Yerba Buena steers. "They weighed for their size more than any cattle I have ever killed," saith the butcher, and my experience—bought and paid for with gold coin—is that Jerseys will not net, on the block, half their gross weight, where common steers on the same pasture and same scales would, and did, net half.

The Michigan Agricultural College a few months ago fed quite a number of steers of different breeds with a view to testing the beef-producing qualities of the different breeds.

What the result was any reader of the RURAL PRESS may easily ascertain by referring to page 555 of his last numbers.

Among these steers was a Jersey "Rescoe." For 1161 days he had been specially stall-fed for the fat-stock show at Chicago.

At the age of three years two months he weighed upward of 700 pounds; about 745.

I was surprised that a Jersey steer fed and cared for even as he had been should have reached that weight at that age, but it was a result of scientific feeding, and in choosing a steer upon which to make the experiment, it is not likely that the college board selected one that was either unthrifty or undersized.

And yet this steer only equaled the Jerseys same age, killed by the San Jose butcher. They had not been stall-fed. The letter says so. "They had gotten their entire living off the hills back of San Jose." "Taking into account how they were raised," they really excelled the prize Jersey steer of the Michigan college.

Michigan agriculturists, behind the hills of San Jose hide your diminished heads. If San Jose was not an eminently truthful neighborhood, I think I could account for these exceptionally fine Jersey steers, by assuming that they were three-fourths Durham, but as it is, I can only exclaim with the poet, "There are more things"—scale bugs and Jerseys—"in heaven and earth"—San Jose—"than thou hast dreamed of in thy philosophy."

Grass Valley.

WILLIS PEASLEE.

Permanent Pasture.

EDITORS PRESS:—As the years roll by our ranchers are learning that land that is adapted to hay can be made more profitable by far when sown to grass than it has been in past years when grain alone was grown. To get a grass that will give a large yield of good hay and furnish a pasture that will not be tramped out by the stock is desired. My experiments have necessarily been on a limited scale, but of sufficient extent to show me that unless the same condition of natural or artificial moisture prevails the grass mixtures preferred in the East will not prove a success here. The most profitable mixture—that giving the greatest amount of hay—for our Eastern farmers is known as "Henderson's special grass mixture," consisting of orchard grass, meadow fescue, sheep fescue, English rye grass, Italian rye grass, red-top, creeping bent, sweet-scented vernal and meadow fescue.

Fifty per cent of the mixture is orchard grass, the remaining half being divided among the other varieties. Orchard grass has been forcing its way to the front, and now stays there as the most profitable grass to grow. Its habit of attaining a good growth before the ox-eyed daisy—the pest of Eastern farmers—can ripen its seed makes it of special value there in reclaiming land given up to the daisy pest. We

have no daisies, but some of our farmers have a superabundance of morning-glories that they fain would part with, and I think orchard grass would in time exterminate it. By reference to the root system of the different grasses and their ability to withstand drought, it will be found, more especially on trial, that few of these grasses do well in hot, dry climates, unless irrigated freely. After repeated trials I have culled from them and prepared the following mixture, which is easily obtained: Orchard grass, 10 pounds; Italian rye grass, 5 pounds; alfalfa, 5 pounds, and I stopped there. Try a patch in your pasture, weigh your crop, see how well it stands pasturing, how early it is fit to cut, and how little moisture it will live on compared with other grasses, and report your success or failure in the RURAL.

Murphy, Cal.

E. H. SCHAEFFLE.

From Vacaville.

EDITORS PRESS:—We are now having frosty nights and ice forms in the puddles in the roads. It is raining to-day. The roads are so we can get to town, but it is rough traveling. About 19 out of 20 persons, big and little, have a cold, and each one is ready to say that his or her particular cold is much worse than any one's else.

Nearly every one is busy pruning or spraying trees. Some are using a wash made of coal oil and some kind of bark. The trees after being sprayed look as bright as a little boy with his face washed for school.

We need some law to compel all who have orchards to take care of their bugs; also, some way to provide for the removal of willows and cottonwoods from along the creek, for they are worse to breed pests than fruit trees. Some of the oak trees here are as full of scale as they can be; but according to Prof. Klee's report they are not hurtful to fruit trees. I have seen the manzanita bushes covered with a white soft scale, but do not know what species they belong to. Mr. W. Long has two orange trees which were alive with scale two years ago, but he killed them all off by pouring dishwater on the trees.

Help is plenty at \$1 per day, Chinamen boarding themselves, white men boarded.

Mr. Derby, who has a ranch near Vacaville and is agent for Rock's nursery, says he has sold 75,000 trees around Vacaville, and would have sold many more could he have got them. Probably 25,000 more have been brought here from other nurseries. On a guess, about one-fourth of these will be used to fill out orchards planted last year, the others for new orchards and old vineyards. All of the leading varieties of peach and apricot trees have been out at the nurseries for some time.

Quite a number of nurseries were figured out on paper last year and the pits put into the ground, but they did not sprout, probably on account of being frozen. It is common here, when we want peach pits to plant, to bury them in the fall about six inches deep. By the time the ground is warm enough for the little trees to grow, the pits will be split open and the seed sprouted. Some crack the pits, but this makes a great deal of unnecessary work. Peach pits are better than apricot pits on account of the gophers.

Two years ago many of our fruit-growers engaged their dried fruit at 10 and 16 cents. Fruit went up on account of a short crop in the East, and those who did not sell early got the best prices. This last season dried fruit opened low; so quite a number resolved to ship East. They did so and much of the fruit is not sold yet, with a prospect that the expenses on it will make the returns very small. My experience and observation for the past ten years is that the man who sells his dried fruit just as soon as it is ready for market makes the most money. He takes no chances on the worms which will begin to crawl in new fruit in two weeks, nor risks of loss by fire, water, or other causes which every man takes who keeps his dried fruit on the ranch.

In the annual report of Secretary Fairbank, published in the PRESS of January 19th, he says: "These agents are all under heavy bond, and there is no possibility of a loss to any of our consignors." Now I would like to have a little explanation. In PRESS of December 1st, Mr. Block figures out that the returns on 17 carloads was not profitable to the shippers. In issue of December 8th Mr. Fairbank says in reply: "We have had some fine grape sales at the windup of the season, one car netting the shipper \$1800." How did that benefit the man who shipped the middle of the season and had to go down into his pocket for money to square up accounts? Mr. J. W. Gates shipped this season between eight and ten carloads of grapes East. Mr. Gates says he would have been \$3000 better off if he had left the grapes on the vines. Others here have had similar experiences, and it seems odd to me to say there is no possibility of a loss. G.

Vacaville, Jan. 20, 1889.

SENATOR JONES has introduced a bill compelling people owning barbed-wire fences to fasten a board at the top of each panel, so that animals may be less liable to run into the dangerous "improvement." The measure will be hailed with joy by the people of the interior, and ought to pass both houses.

A POSTOFFICE has been established at Forster, Los Angeles county, and John Farrell appointed postmaster; also, at Bimopolis, Ventura county, with Geo. A. Cutler for postmaster.

State Horticultural Society.

Prof. Hilgard presided at the last meeting of the State Horticultural Society. The attendance was small, owing to the attractions of the season.

Printed copies of the minutes of the November meeting, prepared by Gilbert Tompkins, secretary pro tem, were distributed, and by unanimous vote their reading was dispensed with.

F. J. Fletcher, 310 California street, Captain J. R. McKee of Napa and C. W. Reed Jr. of Sacramento were nominated for membership, and John Swett of San Francisco was elected a member of the society.

Samples of a seedling apple grown by I. J. Wickersham of Cloverdale were on exhibition, and a committee consisting of Messrs. Coates, Klee and Sweetzer was appointed to decide on its merits. The apple is of large size, yellow with a tinge of red, and is of excellent flavor.

By invitation of the president, Leonard Coates of Napa opened the discussion on tile-drainage. He said that drainage was an exceedingly important matter and should be done with great care. Tiles must be of the best quality, and also must be laid evenly. A great many farmers make a mistake in using too large a pipe when a small pipe is the most practicable. In draining the water flows very slowly through the large pipes, and silt will accumulate and stop the flow. Drains should be laid some 50 feet apart and 3 feet deep. He commended a plan of excavating a pond on the lowest place if no outlet could be found for water, letting all the drains run into it, and the water then escaping by evaporation. A well might serve the same purpose on a smaller scale by allowing the water to reach a pervious stratum.

Prof. Hilgard thought Mr. Coates' suggestion as to the use of small pipes a good one. In his judgment, a three-inch pipe was often large enough for main drains and two-inch for laterals. In regard to expense, he said that Californians with high-priced lands, yielding high returns, could better afford to carefully drain and improve their land in this way than farmers in regions where the best land cost only \$20 an acre. It is of importance to remember that tile drainage will improve adobe soil more than most soils.

Gilbert Tompkins of San Lorenzo read some interesting selections regarding tile drainage. He showed that in Illinois, Indiana and Ohio there are about 1800 factories. Mr. Tompkins figured that land can be drained here at a cost of about \$55 an acre, using three-inch pipe.

Mr. Coates called the attention of the society to some dried fruits he had purchased to send abroad as samples, thinking they were first-class in every respect. Mr. Coates said the top layers of the fruit—nectarines—were perfect, but when he came to the middle of the box he found pits, worms and spoilt fruit in such profusion that he was forced to return a portion of the fruit. The seller of the fruit, he said, thanked him for this, and promised to make good the loss. He kept one box, which seemed to be a little more select than the rest. He brought a bagful to the meeting and spread them before the president. The nectarines were not first-class, and Mr. Coates said that he hoped such fruit would not be sent to London and Paris as samples of evaporated California fruit.

At first Mr. Coates could not be induced to tell who sold him the fruit, but at the request of W. H. Bramhall, Mr. Coates said the fruit had been packed for Mr. Meade and not by him.

Mr. Bramhall thought it was a shame that such fruit should be placed on the market for sale, and said it was only proper for the packers to mark the boxes in some manner that would designate the individual who did the packing. The entire fault lay with the packers and not with the dealers. Mr. Bramhall then showed a card which was used by Weinstein & Lubin of Sacramento, and he made the motion, which was carried, that the society should make known as publicly as possible its desire to have every packer use such cards as the one he had in question. These cards have written on them the name of the packer and the date when packed, and a written request that it be returned if anything wrong is found with the fruit. One card is placed in every box.

D. B. Wier of Petaluma read a paper concerning the "codlin moth."

At G. P. Rixford's suggestion the subject for discussion at the next meeting will be "The Improvement of Our Wild Fruits;" also any other subjects that may be suggested by the meeting of the California Fruit Union.

AN ORDINANCE AGAINST BUGS.—We learn from a local paper that the anti-scalebug ordinance passed by the Pomona City Council provides that any person who refuses or neglects to destroy the trees or fruit upon which the scalebug may be found in Pomona may be fined \$300 or sent to jail for 30 days, while, at the same time, his trees or fruit affected by the pest may be destroyed.

HOPS TO ENGLAND.—According to reports of the S. P. C., California, during the year 1888, shipped direct to England 1,442,330 pounds of hops. This includes shipments all rail and via Sunset. In addition there was, of course, a large shipment of California hops from New York to England, which is not accounted for in the above figures.

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Stockton Combined Harvester and Agricultural Works.

A RURAL representative visited the Stockton Combined Harvester Works at Stockton on the 16th inst. This great plant was in full blast and a good force of skilled mechanics at work. Mr. Dan'l Hauser, the inventor of the "Hauser" harvester, is superintendent. Mr. M. Laufenberg was at the works perfecting his cleaner, to be placed on the harvesters. With the many improvements made on the "Hauser," and such noted inventors superintending the construction, the farmers and ranchmen may conclude that they can have a combined harvester and cleaner far superior to any ever built at these works. Mr. Miller, the inventor of Miller's lightning hay-press, was also at the works, adding improvements and perfecting his hay-press.

It should be very gratifying to the California farmers to know that these successful inventors and this great manufacturing establishment are turning out implements that are peculiarly adapted to the ranches of the Pacific Coast.

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IMPROVED STOCK.—The herd of Cruickshank Shorthorns belonging to Heilbron Bros., Sacramento, purchased last fall, have done well this season. Of his Hereford herd, a grade calf six months old dressed 520 pounds.

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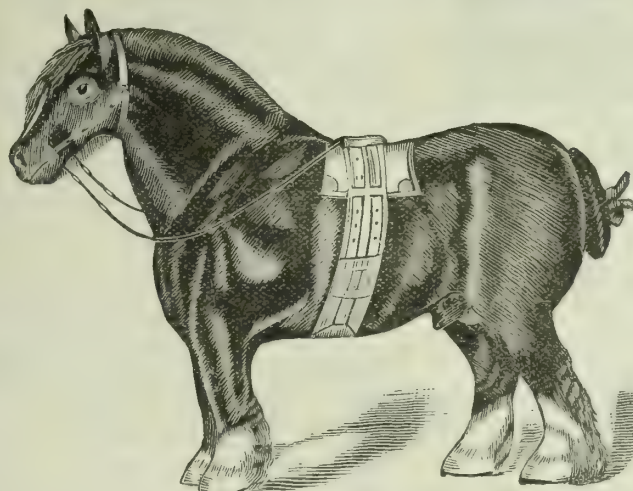
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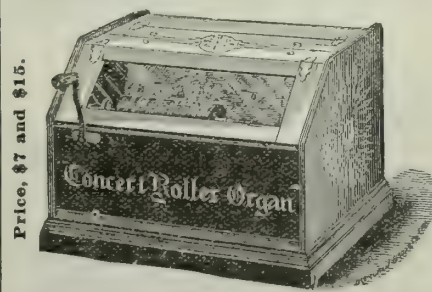
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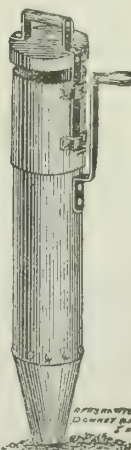
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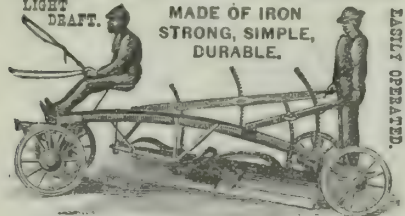
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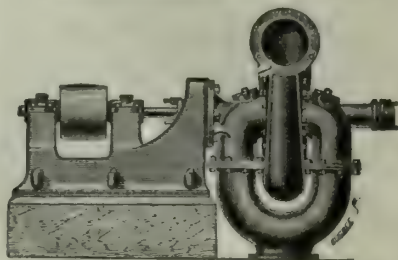
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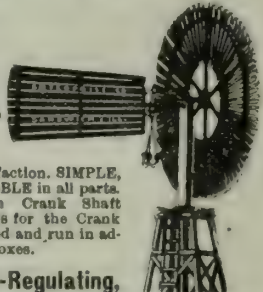
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On account of the death of F. A. BRIGGS, Manager of the Amesbury (Mass.) Carriage Factory, the whole stock of fine light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for sale at less than cost, to settle the estate.
O. CREGO, Administrator.
Salesrooms, 220 & 222 Mission St. S. F.

SORGHUM

A LITTLE book that every farmer ought to have is the "Sorghum Hand Book" for 1889, which may be had free, by addressing The Blymyer Iron Works Co., of Cincinnati, O. Sorghum is a very valuable crop for syrup-making, feed, and fodder, and this pamphlet gives full information about the different species, best modes of cultivation, etc. Send and get it and read it.

BACK FILES of the PACIFIC RURAL PRESS (unbound) can be had for \$3 per volume of six months. Per year (two volumes) \$6. Inserted in Dewey's patent binder, 50 cents additional per volume.

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SEEDS

The Proposed London Exhibition.

The adjourned meeting of the convention in favor of the proposed California exhibition in London was held in Sacramento on Tuesday. The meeting was largely attended, and, according to reports in the Sacramento papers, was unanimous in sentiment and enthusiastically in favor of the project. Those who desire a full report of the meetings should send for the Sacramento Record-Union of January 23d.

Considerable time was given to a discussion of the form of law to enact in furtherance of the enterprise. The following is the original draft of the bill as prepared by Mr. Estee:

SECTION 1. There shall be appointed by the Governor seven Commissioners, and as near as may be from the two great political parties of this State, one from each Congressional District and one from the State at large, and who shall be selected as nearly as possible to represent the varied industries of the State, whose duty it shall be to gather and maintain in the city of London an exhibit of the products of California. For this purpose they shall elect from their own members a President, and appoint a Secretary, and such assistants as may be required. They shall have full power to transport such products to London, to engage suitable rooms for the exhibition in that city, and to do and perform every act necessary to maintain the exhibit for a period of not less than two years.

SEC. 2. Said Commissioners shall select one of their members to go to London and superintend and have charge of the exhibit, provided for in Section 1 of this Act. Such Commissioner shall receive as compensation for his services the sum of three thousand dollars a year. But the remaining six Commissioners shall receive no compensation for their services, except such actual traveling expenses as may be incurred while engaged in the service of the Commission within the State of California.

SEC. 3. The sum of one hundred thousand dollars is hereby appropriated out of any funds in the State Treasury, which sum shall be paid to said Commission in 24 monthly installments for the maintenance of said exhibit of the products of the State of California, in the City of London, England. Not more than fifty thousand dollars of said sum shall be paid in any one year, and the State Controller is hereby directed to issue his warrant monthly in favor of the President and Secretary of said Commission for the sum of \$4166.66 upon the State Treasury, and the State Treasurer is hereby directed to pay the same. Such warrant shall be issued upon the order of the President and Secretary of the Commission.

SEC. 4. The said Commission shall make to the Governor and State Controller quarterly detailed financial statements of all moneys expended by it.

In the discussion on this proposed law, ex-Senator Wm. Johnston favored retaining the amount of appropriation asked for in it, viz., \$100,000, but after a long discussion of plans and methods, the sentiment of the convention was declared in favor of asking the Legislature for \$250,000.

The Bill Now in the Senate.

The Sacramento Bee gives the following text of the London Exhibit bill introduced in the Senate by Mr. Moffitt and referred to the Finance Committee:

SECTION 1. It is hereby provided that an exhibition of the products and industries of the State of California shall be made in London, England, for the purpose of developing the resources of the State and the promotion of her commercial interests.

SEC. 2. A Board of Commissioners is hereby created to take charge of and manage such exhibit, which Board shall be known as the London Exhibition Commission of California. The Commissioners so created shall serve without pay, but shall be allowed actual expenses incurred in business of the Board.

The Commission hereby created shall consist of seven members, to be chosen as follows: One by the Senate and Assembly in joint convention to be held for that purpose, who when selected shall be President of the Commission, and one from each Congressional district in the State to be elected by the members of the Senate and Assembly from the respective Congressional districts, who shall meet in joint district convention for that purpose.

The members of the Commission shall be citizens of the United States and qualified electors of the State of California, and the members from the respective Congressional districts shall be residents thereof.

The Commissioners under this Act shall hold office for the term of two years or until their successors are appointed and qualified, and shall file their oaths of office with the Secretary of State within the time prescribed by law.

Within twenty days after the passage of this Act the members of the Commission shall assemble in the State Capitol and organize by the election of a Secretary and Treasurer, neither of whom shall be members of the Board.

The Secretary and Treasurer shall give bonds in sums to be fixed by the Board.

Immediately after its organization the Board shall provide a seal, and all of its official acts shall be evidenced thereby and by the signatures of its President and Secretary.

When organized the Board shall notify the Secretary of State in writing of the fact, giving the names of its officers and a description of the device adopted for a seal, and thereafter shall notify that officer of any changes in the Board as they occur.

When organized the Board shall have exclusive charge, management and control of, and exclusive power to receive and disburse all moneys appropriated under this Act; it shall also have power to fill all vacancies in the Board, occurring for any cause whatever, and to do all other things necessary or expedient within the purposes of its creation, and shall have power to appoint honorary members of its body.

SEC. 3. The sum of \$250,000 is hereby appropriated out of any moneys in the State Treasury not otherwise appropriated, for the purpose of carrying this Act into effect.

SEC. 4. The Controller of State is hereby authorized and directed, upon the written requisition of the Board of Commissioners, signed by the President,

countersigned by the Secretary and attested by the seal of the Board, to draw his warrant in favor of said Board as follows. On the first Tuesday of May, 1889, for the sum of \$50,000; on the first Tuesday of July, 1889, for \$50,000; on the first Tuesday of September, 1889, for \$50,000; on the first Tuesday of January, 1890, for \$50,000; on the first Tuesday of May, 1890, for \$50,000; and the Treasurer of State is authorized and directed to pay the same.

SEC. 5. Quarterly reports of all receipts and disbursements of the Commission shall be filed with the State Board of Examiners, and annual reports of the condition of affairs, including a full financial statement, shall be filed with the Governor of the State on or before the second Monday of January of each year.

Legislative Items.

W. S. Lyon, of the State Board of Forestry, appeared before the Assembly Committee last week and spoke in favor of the appropriation of \$111,300.

Among the bills which have been introduced in the

State Senate

And referred to committees are:

An Act to repeal an Act entitled "An Act to provide a system of irrigation, promote rapid drainage and improve the navigation of the Sacramento and San Joaquin rivers," approved March 29, 1878.

An Act authorizing the Boards of Supervisors of the several counties of the State to declare innavigable streams highways for the floating of logs and timber, and to provide for the improvement and use of the same.

An Act to provide for the incorporation of mutual fire insurance companies and define their powers and duties.

An Act creating the county of Orange out of the southwest corner of Los Angeles county.

In the Assembly.

The following bills, among others, have been introduced and referred:

An Act regulating the storage and sale of jute grain bags manufactured at the State Prison.

An Act making appropriations for the construction of buildings and the purchase of machinery for the manufacture of jute goods at the State Prison at Folsom, and other expenses incidental thereto.

An Act to amend an Act making an appropriation for the purchase of jute, to be manufactured at the State Prison at San Quentin.

An Act making appropriations for the purchase of additional jute machinery, and the erection of additional buildings for the manufacture of jute goods for the State Prison at San Quentin, and other expenses incidental and relating thereto, and providing for fixing the price at which jute goods shall be sold by the State.

An Act to create the county of Glenn, to establish the boundaries thereof, and to provide for its organization.

An Act defining the rights of pre-emption and homestead claimants on public lands of the United States within the State of California.

An Act to create the county of Orange, etc.

An Act to provide for the incorporation of mutual fire insurance companies, and define their powers and duties.

An Act to amend "An Act to amend Sections 2, 4, 6, 7 and 8 of an Act entitled An Act to form agricultural districts, to provide for the organization of agricultural associations therein, etc."

An Act to amend Section 400 of the Penal Code, relating to contagious diseases among animals.

An Act making appropriations of money for the use of State Board of Forestry.

An Act for the destruction of wolves and coyotes, and to authorize a bounty to be given by the State, to encourage such destruction.

An Act to appropriate money to pay the claim of Mrs. J. G. Lemmon, as Commissioner of Woman's Department at the New Orleans World's Industrial and Cotton Centennial Exposition, from November 15, 1884, to June 15, 1885.

An Act to prevent the sale of intoxicating liquors to persons addicted to the inordinate use of intoxicating liquors.

An Act to provide for the conduct of elections, and to more fully secure the independence of electors and the secrecy of the ballot.

An Act to amend Sections 10, 18, 19, 20, 21 and 22 of an Act entitled "An Act to provide for the organization and government of irrigation districts, and to provide for the acquisition of water and other property, and for the distribution of water thereby for irrigation purposes," approved March 7, 1887.

An Act to authorize and empower the Board of Fish Commissioners to remove certain obstructions in the American river for the passage of fish up said stream and its tributaries.

POSSIBILITY OF A LOSS.—On page 86 of this issue our Vacaville correspondent asks how Sec'y Fairbank's statement in his report that the agents of the Union "are under heavy bonds and there is no possibility of a loss to any of our consignors," can be true, and proceeds to cite instances of losses. Of course Mr. Fairbank's statement means that provision is made by bonds against any loss by malfeasance of any agent or employee, not against loss from decay of fruit or ruinously low market rates. The fact is simply that while a commission merchant might go to Canada or to bankruptcy and the consignor have to whistle for his returns, the shippers through the Union are protected by bonds from losses of this kind.

Another Improvement for Our Readers.

By reference to our new rates of subscription, it will be seen that we now offer subscribers 15 months for \$3, when paid strictly in advance, which is ten per cent better terms than ever before presented. We have also made our rates so that any who could not afford to pay a whole season in advance can get the benefit of our emphatic inducements for advance payments on shorter periods.

Combining the subscribers of the California Patron and the RURAL PRESS into one larger list makes it possible for us to afford these better terms to all who will pay in advance even for a single quarter.

It also renders it more agreeable for correspondents work for a larger circle of readers, by affording a stimulus for them to give more labor to perfect their contributions.

Unique Indeed.

Some weeks ago appeared a "Unique Map of California," prettily printed in half a dozen colors and studded with a score of little gems in the shape of bits of striking California scenery. It was well calculated to take the eye of tourist and immigrant, and appeared to have been "published under the auspices of the S. P. Co. and the State Board of Trade."

To guide the home-seeker in choosing where to settle, it also professed to mention the principal products of each county. How reliable its information is, in this last respect, may be inferred from the few instances we give.

San Bernardino—Figs, almonds, honey, grains. Butte—Oranges, grains, wines, fruits. Los Angeles—Cereals, minerals, semi-tropic fruits. Placer—Fruits, hops, oranges, iron, lime. Colusa—Grains, fruits, silk, etc.

The unfairness of the thing has raised a storm of indignation in the southern counties, and called forth such utterances as the following:

This map is a direct misrepresentation of South California and its products. It says, in effect, to Eastern people coming here for homes, "If you are seeking a climate and soil which will produce oranges, you must go to either Placer or Butte county, as these alone, in the entire State, grow oranges in sufficient quantities to entitle them to the name of an orange-producing section." This is so entirely at variance with fact that South California must protest against it vigorously and effectively.

And Secretary Davies has written to the President of the Riverside Board of Trade that the State Board had nothing to do, directly or indirectly, with the preparation or production of the map, but that it was prepared and published as a private enterprise by a Mr. McJohnstone, an attache of the passenger department of the S. P. Co. If the latter party has offered any explanation or disclaimer, it has as yet escaped our notice.

Santa Cruz Farmers' Union.

The following report appears in the Santa Cruz Courier-Item of Jan. 19th:

Thursday afternoon a meeting of the newly-elected Board of Directors for the Farmers' Union was held in their building at the corner of Pacific and Minnesota avenues. The affairs of the organization were freely and thoroughly discussed and the plans for the ensuing year fully determined upon. The "Union" is in a flourishing condition and its future prospects encouraging.

Stock to the amount of \$5500 was sold. It was decided to remodel the sales departments entirely, thereby adding to their convenience and attractiveness.

Mr. Louis Schwartz, who, as will be seen below, has been chosen by his associates as president and manager, will superintend the buying of a large stock, complete in all details, with which to fill the large and finely remodeled store.

A large and efficient Board of Directors was elected, as follows: L. Schwartz, S. F. Grover, D. W. Grover, F. D. Scott, J. W. Towne, James Corcoran, A. S. Hicks, B. Pilkington, J. Ho. Bailey, Thomas Crooks and F. R. Currier. The officers and their positions are as follows: President and manager, L. Schwartz; vice-president, S. F. Grover; secretary, F. D. Scott; treasurer, D. W. Grover.

FRUIT WEEK IN SAN FRANCISCO.—As the columns of the RURAL this week and last clearly show, the third week in January was largely given to public horticultural events. They may be recapitulated as follows: Tuesday, opening Viticultural Exchange; Wednesday and Thursday, annual meeting of the Fruit Union; Friday, annual meeting of the Dried-Fruit Association; Saturday, meeting of raisin-producers and packers. It is an excellent idea to have events of similar character grouped in this way, since it induces many to come from long distances because of the many birds to be killed with one stone. If the meetings were scattered, no one of them would seem enough of itself to warrant the expense of several hundred miles journey. It looks as though the third week of January would become famous as Fruit week in San Francisco.

California Products at Chicago.

CHICAGO, Jan. 23.—In California dried fruits the principal trade is in sun-dried peaches. For unpeeled there is a fair demand and some pretty good lines have been recently sold. The demand is mainly for fruit in sacks, and the stock of such lots is considerably reduced. Box lots rule quiet. If choice and dry they sell very well. Peeled peaches are quiet. The trade is hardly disposed to pay prices over sundried that is asked. Apricots are in fair demand for best grades, with evaporated preferred; choice bright goods only wanted; great many dark in market, which are slow on account of color. Trade in nectarines is fair, with trade quite equally divided between evaporated and sun-dried, but trade looking for cheaper grades; stock of this line of fruit is rather light. There are but few plums here and demand also light; market nearly nominal. Good demand exists for good prunes and the supply of these is also small. Raisins are in very good request.

Apricots—Evaporated, bleached, bxs, 13@14c; do, sun-dried, bleached, sks, 9@12c. Apricots, sun-dried, unbleached sks, 7@9c. Peaches—Evaporated, bleached, unpeeled, bxs, 8½@9½c; do, sun-dried, bleached, unpeeled, sks, 7@8c; do, unbleached, unpeeled, sks, 4½@6c; do, sun-dried, peeled, bxs, 10@10½c; do, peeled, sks, 10@10½c; do, evaporated, peeled, bxs, 12@13c. Nectarines—White, evaporated, bleached, bxs, 9@10c; do, sun-dried, sks, 8@9c; do, red, evaporated, bleached, bxs, 8@9c; do, sun-dried, bleached, sks, 7@8c. Plums—New, pitted, 4@10c; new, unpitted, 4@7c. Prunes, according to size, in sks, 5@9c; do, Silver, 8@10c; do, Hungarian, sks, 3@3½c.

Raisins—Loose Muscatels, new, ½ box, \$1.10@ \$1.35; do, London layers, new, \$1.75@ \$2.25.

Arrivals of beans are rather small. While present offerings may equal trade requirements, stocks, however, are not large, but rather moderate. Choice Navies meet with moderate demand, but mediums do not sell so well. Lots are slow and easy, while choice beans rule steady.

GEORGE M. PULLMAN is building for the Southern and Union Pacific railroads a train of passenger cars which will be an exact duplicate of those that make up the present train of the Golden Gate Special. The order for the construction of the new cars was given some weeks ago, and the purpose of their construction is to have the Golden Gate Special run twice a week between this city and Omaha.

THE biggest ice crop on record is being stored along the Truckee river.

California Sunshine.

This is the fitting title of a very delightful little book by Mrs. L. H. Shuey, so well known to readers of our journal as the Maid-of-all-Work, the pseudonym which she assumes in her contributions.

The collection includes "The Golden Spike," "Dare," a Napa college alumni poem, "In Memoriam" poems, a C. L. S. C. poem, and the "Home and Field Verses of California Farm Life on the Plains."

We can earnestly commend this work of one who writes so acceptably for our columns to all our readers who love pure sentiment, truth to life and loyalty to California in musical verse.

This book is for sale at book stores and by the author, Mrs. L. H. Shuey, 2509 P street, Sacramento, Cal.

H. H. H. HORSE MEDICINE.

The popularity that this curative compound has attained, induced parties to manufacture and sell an imitation under the name of the celebrated "H. H. H. Horse Medicine." By a recent decision, Jan. 4, 1889, Judge Spencer of the Superior Court of Santa Clara county, says this proprietary medicine belongs to H. H. Moore & Sons of Stockton, and any one selling his own or that manufactured by another, will be liable in damages.

This liniment has been used nearly 20 years on the Pacific Coast, and gained a reputation for being an indispensable article for the farmer and stockman. This reliable and enterprising firm feel under many obligations to their numerous patrons, and are stimulated to make diligent labor to keep the H. H. H. liniment up to its usual high standard of excellence. They also manufacture the "H. H. H. Healing Ointment" and "H. H. H. Condition Powders."

As druggists and pharmacists they rank high in their profession, and any curative compound bearing their trade-mark can be relied upon for the purposes indicated and set forth.

STOCKTON SAVINGS AND LOAN SOCIETY.

This Savings and Commercial bank was organized in August, 1867, with a capital of \$250,000, and soon after increased to \$500,000. Ten per cent of the original capital was paid in, and during all these years has paid, regularly, dividends of from 12 to 18 per cent; the one for 1888 being 18 per cent. Their policy has been to pay a stipulated sum as interest on all time depositors each year from 4 to 5 per cent. The capital stock is fully paid up with a reserve of \$337,000. Mr. L. U. Shippee is president, and Fred M. West, cashier.

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Remedies for their Extermination.

By MATTHEW COOKE.

Late Chief Executive Horticultural Officer of California. Illustrated with over 750 wood-cuts and 25 pages of colored illustrations. This book is designed for the use of orchardists, vineyardists, farmers and others interested in the subjects treated. It is designed to convey practical information concerning some of the species of insects injurious to the industries of cultivators of the soil, and those interested in earth produce generally. Price 84, postpaid. For sale by Dewar & Co., publishers, 220 Market St., San Francisco.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Laid, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETS COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKLEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAGE & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

GEO BEMENT & SON, Maple Grove Farm, Oakland P. O., breeders of Ayrshire Cattle & Essex Swine.

F. H. BURKE, 401 Montgomery St., S. F.: Registered Holsteins; winners of more first prizes, sweepstakes and special premiums this year than any herd on the Coast. Pure Berkshire Pigs. Catalogues.

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WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

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W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENMAN & McNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

ELROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal. Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton), Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

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T. D. MORRIS, Agua Caliente, Cal.; pure-bred fowls.

GALT POULTRY YARDS, S. W. Palin, prop'r, Galt, Sac'to Co., Cal., importer and breeder of thoroughbred Ply. Rocks, Lt. Brahmas, Langshans, Wyandottes & P. Cochins; eggs, single sitting \$3, 3 sit'gs \$7.

W. G. ELLIS, 954 Broadway, Oakland, Cal., importer and breeder of thoroughbred Black Leghorns.

A. C. BUSCHHAUPT (successor to Jas. T. Brown), P. O. Box 43, Station B, Los Angeles, Cal., yard on State St., Brooklyn Heights, importer and breeder of all leading thoroughbred Fowls, and Eggs, at reasonable prices. Circular free.

W. C. DAMON, Napa, \$2 each for choice Lt. Brahmas, Wyandottes, P. Rocks, White and Brown Leghorns Best Seed for sale.

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H. H. CRANE, Petaluma, Cal., breeder and importer, South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Ram for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine high graded rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

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JOSEPH MELVIN, Davisville, Cal., Breeder of Poland China Hogs.

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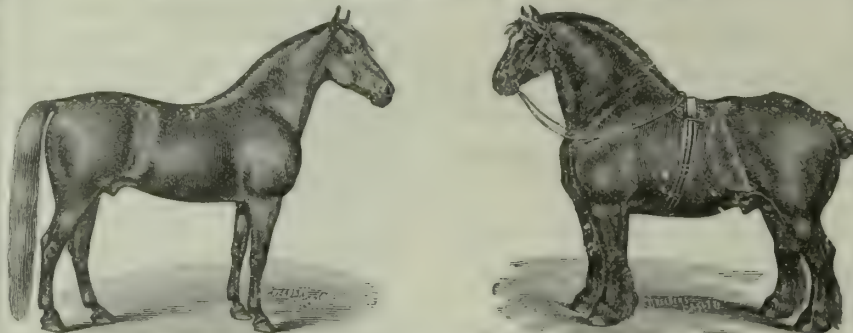
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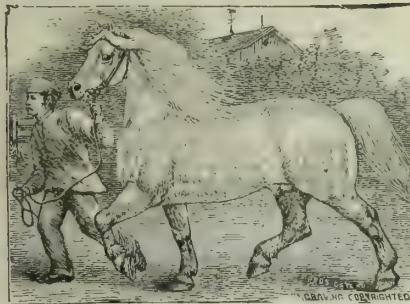
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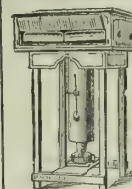
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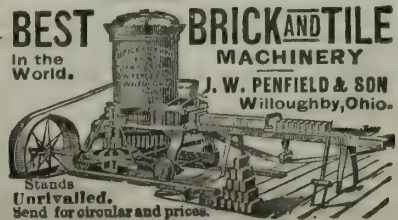
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S. H. MARKET REPORT

Weekly Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Jan. 23, 1889.

The weather the past week was, taken as a whole, favorable for farm work. Many localities complain of the season being too advanced, while, again, others report cold nights, which gives vegetation better rootage and a harder growth. General trade in farm products the past week was only fairly active, while prices under increased offerings and a strong bear influence shaded off. The European and the Eastern wheat markets have fluctuated some, with the tendency downward. The following is to-day's English cable:

LIVERPOOL, Jan. 23.—Wheat—Depressed. California spot lots, 75 5d @ 75 8d; off coast, 38 5d @ 37 9d; just shipped, 38 5d; nearly due, 38 5d; cargoes off coast, inactive; on passage, neglected and no business doing; English country markets, very slow and occasionally cheaper; French, rather worse; wheat and flour in Paris, slow; weather in England, frosty.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt:

	Jan.	Feb.	Mar.	Apr.	May	June
Thursday	78 1/2	78 1/2	78 1/2	79 1/2	79 1/2	78 1/2
Friday	78 1/2	78 1/2	78 1/2	79 1/2	79 1/2	78 1/2
Saturday	78 1/2	78 1/2	78 1/2	79 1/2	79 1/2	78 1/2
Sunday	78 1/2	78 1/2	78 1/2	79 1/2	79 1/2	78 1/2
Monday	78 1/2	78 1/2	78 1/2	79 1/2	79 1/2	78 1/2
Tuesday	78 1/2	78 1/2	78 1/2	79 1/2	79 1/2	78 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments:

	O. C.	P. S.	N. D.	Market.
Thursday	39 00	39 00	39 00	Improving.
Friday	39 00	39 00	39 00	Quiet.
Saturday	39 00	39 00	39 00	Quiet.
Sunday	39 00	39 00	39 00	Quiet.
Monday	39 00	39 00	39 00	Quiet.
Tuesday	39 00	39 00	39 00	Quiet.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York:

	Jan.	Feb.	May
Thursday	97 1/2	97 1/2	102
Friday	97 1/2	97 1/2	102
Saturday	97 1/2	97 1/2	102
Sunday	97 1/2	97 1/2	102
Monday	97 1/2	97 1/2	102
Tuesday	97 1/2	97 1/2	102

The closing prices for wheat have been as follows, at Chicago:

	Jan.	Feb.	May
Thursday	96 1/2	96 1/2	101
Friday	96 1/2	96 1/2	101
Saturday	96 1/2	96 1/2	101
Sunday	96 1/2	96 1/2	101
Monday	96 1/2	96 1/2	101
Tuesday	96 1/2	96 1/2	101

NEW YORK, Jan. 23. Wheat 96 1/2c for cash, 94 1/2c for Feb., 95c for March, 95 1/2c for May and 95 1/2c for June.

CHICAGO, Jan. 23.—Wheat—94c for cash, 94c for Jan., 94 1/2c for Feb., and 95 1/2c for May.

The Foreign Grain Review.

LONDON, Jan. 21.—The *Mark Lane Express*, in its weekly review of the British grain trade, says: Native wheats have maintained their values. The large proportion of inferior grades offered gives the market the appearance of greater depression than actually exists. Flour is dull. There is a fall of 1 franc for French flour, depressing the British market. Foreign wheat is weak. Corn has improved in tone, though there is a large American surplus. Wheat and flour on passage to the continent, 377,000 qrs.; wheat and flour on passage to the United Kingdom, 2,470,000 qrs.; imports of flour into the United Kingdom for the week, 180,000 bbls.; imports of wheat into the United Kingdom for the week, 162,000 qrs.

Eastern Wool Market.

NEW YORK, Jan. 18.—Bradstreet's says: No features of importance appear in any wool market. Business is going forward steadily with moderate takings for consumption, and prices are fully maintained. Rather more trade than usual has occurred in foreign wool, both in New York and Boston. Heavyweight wools will be carried over to next season to some extent, on account of the mildness of the winter, and this may affect the market hereafter. There is a general disposition to wait for the next series of wool sales at London, on the 29th, before making predictions for the future. For the moment a little more interest appears in foreign than in domestic markets.

At Philadelphia, wool is moving very slowly, and, while there is no abatement of confidence among holders, the market is not so buoyant as it was a short time ago. The advancing tendency has been checked, and some lots, recently held at 20c above the general market price, are now available at quotations. Stocks are light and receipts very small. No decline is anticipated by dealers.

BOSTON, Jan. 18.—The wool market has been devoid of new and interesting features during the past week, and trade has been quiet in all grades, transactions amounting to 1,866,000 lbs foreign and domestic. There is no weakness apparent in the market, dealers being quite unwilling to accept any but current quotations, the supply of wool in the country being the regulating force which keeps prices in their present firm position. Stocks of desirable wool are so small here that manufacturers find it difficult to supply their wants, and the Western markets must be well cleaned up. It is predicted that the opening prices of new wool in the spring will make the present seaboard prices seem low in comparison.

Miscellaneous.

NEW YORK, Jan. 20.—There is a sharp demand for raisins of even grade. Useful lots will soon rate higher.

Dried fruits, including prunes, are all plenty enough to fill present wants. Winter pears are unusually slow. The weather is bad for exposure, while cheap oranges and apples attract retail dealers. Lima beans advanced to 3c.

There is more doing in hides, but not enough to influence strong quotations.

The difficulty of duplicating fine quality for early

bought hops prevents the filling of good orders. If, as asserted, the cream has gone, brewers and steady exporters will give up looking for improved samples. London advices are favorable. The exports for the week were 1698 bales. Prices at last week's ranges are repeated.

Local Markets.

The following tables give the highest and lowest prices paid on Call during the past week:

	WHEAT.	S. S.	B. S.	B. '89.	S. '89.	Jan.
Thursday	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2
Friday	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2
Saturday	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2
Monday	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2
Tuesday	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2	146 1/2

BARLEY.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday	88	87	88
Friday	88	87	88
Saturday	88	87	88
Monday	88	87	88
Tuesday	88	87	88

BAGS—The syndicate bulls are again agitating for higher prices, and as has been the case every season, all statistics through the daily press are made to conform to their views. The market at present is irregular. Large holders do not appear disposed to make concessions, while buyers are offish. Spot parcels of Calcutta are quoted at 7 1/2 to 7 3/4c, and June-July delivery 7 1/2 to 7 3/4c.

BARLEY—The market has ruled dull and heavy throughout the week, with more sellers than buyers. Owing to the choice condition of grass-fed bullocks, there has been a decided falling off in the quantity of ground barley fed to stock. Brewers are not in the market at present. In options, trading on Call has been light. The following are to-day's sales:

Morning Session: Buyer 1889—300 tons, 92c; 100, 91 1/2c; 300, 91 1/2c. Buyer season—400 tons, 83 1/2c; 200, 83 1/2c per cwt. Afternoon Session: Buyer 1889—300 tons, 91 1/2c per cwt.

BUTTER—The market is depressed under free receipts and a very light demand. Dealers buy as little as possible. The outlet for supplies is as yet restricted.

CHEESE—Under increasing receipts and buyers not anticipating their wants, the market is shading off.

EGGS—The market is weak at lower prices. Receipts from the interior are increasing, which, combined with free receipts from the Central States, causes the low market.

FLLOUR—The market is weak. Although not quoted lower, yet concessions can be obtained.

WHEAT—The market has been very sick, with buyers constantly shading bids in sympathy with lower prices at the East and abroad. Although lower prices are quoted by us, yet it is doubtful if they can be realized to-day, owing to a bad break in the markets at the East and abroad. Futures in Liverpool declined from 1/4d to 3/4d per cental. In options, trading on Call has been very active, but at steadily declining prices. The following are the sales reported to have been made on Call to-day:

Morning Session: Buyer 1889—200 tons, \$1.41 1/2; 400, \$1.41 1/2; 100, \$1.42; 100, \$1.41 1/2; 700, \$1.41 1/2. Seller 1889—300 tons, \$1.32; 300, \$1.32 1/2. Buyer season—700 tons, \$1.37; 400, \$1.37 1/2; 200, \$1.37 1/2; 200, \$1.37 1/2; 700, \$1.37 1/2; 900, \$1.37 1/2 per cwt. Afternoon Session: Buyer 1889—500 tons, \$1.41 1/2; 100, \$1.41 1/2; 400, \$1.41 1/2; 100, \$1.41 1/2; 100, \$1.42; 200, \$1.42 1/2; 400, \$1.42 1/2; 700, \$1.42 1/2; 300, \$1.42 1/2; 400, \$1.42 1/2. Seller 1889, old—100 tons, \$1.33; 100, \$1.33 1/2; 100, \$1.33 1/2. Seller 1889, new—400 tons, \$1.35; Buyer season—300 tons, \$1.37 1/2; 100, \$1.37 1/2; 300, \$1.37 1/2; 600, \$1.38; 300, \$1.38 1/2; 300, \$1.38 1/2; 100, \$1.38 1/2; 600, \$1.38 1/2; 100, \$1.38 1/2; 500, \$1.38 1/2 per cwt.

[COMMUNICATED.]

Market Information.

Cereals.

A. Kains Jackson writes to the *London Farmer* of Dec. 31 as follows: Liverpool and New York are in deadlock over wheat and flour, but are easy in respect to maize. As to India and Russia, they go on shipping, and why? Because European buyers pay the rates asked, 33s to 39s per quarter. From Australia this season's prospects are strongly contrasted with those of December, 1887, when plenty of wheat was on offer at 20s per quarter under present rates. America and Australia are out of the running for our markets, say for the next four months. To keep value where it now is the wheat-buyer has to depend upon the British farmer and Russian merchant. If anything makes them difficult, prices may be expected to command a range of 3s to 5s per quarter above present currencies. Of course reliance is placed on the receipt of the Californian and Russian wheat now on the seas. Probably the bulk will arrive at our ports, but foreign ports are likely to divert a large share from our ports of call. But when the supplies afloat shall arrive they mean stock bought during the recent increase in value. Rare are the buyers who have got wheat cargoes to arrive at much under currencies. Against influences on seller's side the miller and other wheat-buyers reckon upon their stocks in hand, the stocks that also will arrive, and on the offer of spring shipments. In the midst of these various considerations, the center of trade is calm, a placid level in the midst of a whirlpool.

A more unsatisfactory market in cereals for the selling interest has seldom been witnessed than is now reported in this city, particularly in wheat. The largest manipulators or operators on Call, it is claimed, unloaded all their holdings at the high prices ruling in October and November of last year. Not only did they unload their holdings, but shorted the market; being short, they bent all their resources to hammer prices to lower levels so as to fill at a good round profit. This, there is no doubt, they are now doing while systematically keeping both options and spot down, in which they are favored by a close money market and the near approach of the time when tax assessments will have to be made. They are also favored by a light supply of disengaged tonnage in port and near-by arrivals. Both the Eastern and European markets show a fair degree of steady-

ness, although a slightly lower range of values is quoted.

Advices from the different agricultural sections in this State are confirmatory of a large increase in the acreage plowed and seeded to wheat. In some localities the plant, under favorable growing weather, has made such rapid progress as to necessitate the pasturing of the more mature fields; this of course will cause more stooing out, which was not the case last year. So far the weather has, in all respects, been favorable, but then it is the April and May rains that make the crops.

Barley has ruled weak and heavy under large supplies and buyers taking as little as possible. The supplies, although reported large, consist chiefly of poor grades, bright choice being in very light stock, but the prices of the latter are depressed, owing to the heavy offerings of the former. The consumption is quite large, owing to more farm work and also to railroad construction being well under way again. There will be a lessened acreage seeded this season, which will cause a lighter call for seed.

Corn is without essential change. The tone of the market appears to be steadier, due to the better feeling in the Central States. The consumption here does not seem to be up to preceding seasons.

In both rye and buckwheat there is nothing doing; quotations consequently are more or less nominal.

Fruit.

The market for apples has been very unsatisfactory. There were free offerings of specked and otherwise defective Eastern apples which aid no little in causing the weak and unsatisfactory market. Choice, good keeping Oregon apples are wanted at from \$1.25 to \$2 per box. At the close there is a stronger market at a slight advance for Oregon and California.

Continued heavy receipts of oranges with only a moderate demand have caused values to shade off still more. With milder weather it is claimed that there will be an increased consumption which will promote better prices. It hardly pays to ship poor oranges to this city with the market as at present, particularly those that are not good keepers.

Mexican limes are higher, under a slightly improved demand and reports of small consignments on the way.

In dried fruits the market is lifeless. To sell, low prices must be submitted to, but to buy, full quotations have to be paid. Choice fruits of good color are in light supply and consequently more firmly held. Fruits of off color are in overstock. It is very hard to get reliable or correct quotations. It is claimed that with the spring trade an increased demand will set in, when an improvement in the market is looked for; at any rate it looks as if it cannot do much worse. All quotations are nominal.

The raisin market, like that of dried fruits, is very unsatisfactory. The stock of choice of well-known brands is very light, causing holders to ask \$2 to \$2.25 per box for Three Crown layers and \$1.25 to \$1.50 for loose Muscatels. Outside or unknown brands range from 35 to 45c per box less for layers, and about the same for loose Muscatels. The past week a shipment of one carload of good loose Muscatels was made to the East. The price paid by the shipper ranged from \$1.15 down to 90c a box—the latter was the last price paid. There is no demand, and to force sales low prices have to be submitted to. Bananas are weak, owing to 4200 bunches being on the way to this port.

Wool.

The market is very quiet, owing to light stocks, that here being badly broken. This year's clip in this State will undoubtedly be one of the best on record, unless grass seeds ripen before shearing, which would naturally cause the clip to be more or less covered by them. The pasturage being exceptionally good, will cause the wool to be healthy, strong and lively. Eastern mail advices report that on Jan. 1st the stock of wool in Boston compared as follows:

	Foreign.	Domestic.
Year.	Pounds.	Pounds.
1889.	3,038,500	18,317,657
1888.	2,156,600	31,973,996

In other markets of the United States the stock of domestic wools is estimated to have been on Jan. 1, 1889, 43,340,000 pounds as against 78,000,000 pounds on Jan. 1, 1888. This shows a decided falling off in supplies, and accounts for the high prices now ruling. The stocks of wool abroad are also quite light and prices higher.

Live-Stock.

The market for bullocks and mutton sheep is still in buyers' favor, with all indications pointing to no change for the better in the immediate future. The mild character of the winter in all parts of this coast and in this State, and abundance of natural feed has put stock in the very best condition, and as assessment day will soon be here, many stockmen are said to be realizing. Owing to the superior quality of grass-fed cattle, stall-fed are lower. Small calves and lambs are scarce and high. Hogs are wanted for the block. Packers continue to take sparingly, their wants being fed chiefly with green meat by Chicago and Kansas City. Fresh milk cows are wanted at from \$30 to \$40 for the average run of fair to good dairy cows. In horses, there is very little doing. Medium to large work horses sell well, but light work horses are hard to place, although for the latter it is said there is a little more inquiry. For general utility horses, single-footers and roadsters, there is a good inquiry.

The market for dressed meat is quoted as follows by slaughterers to butchers (to get the price of stock on foot, take off one-third of the price for stall and grain fed and one-half from the price of grass fed, that is animals running at large).

The quotations for beef, mutton sheep and hogs are received from Miller & Lux of this city. The prices are actual sales.

HOGS—On foot, grain fed, 6 1/2 @ 6 3/4c per lb.; dressed, 9 @ 9 1/2c per lb.; soft, 5 1/2 @ 6 1/2c per lb.; dressed, 8 @ 8 1/2c per lb. Stock hogs, 4 @ 5c per lb.

BEEF—Stall fed, 8 @ 8c per lb.; grass fed, extra, 7 @ 7 1/2c per lb.; first quality, 6 @ 6 1/2c per lb.; second quality 5 @ 5 1/2c per lb.; third quality, 4 @ 4 1/2c per lb. VEAL—Small, 8 @ 8c per lb.; large, 7 @ 8c per lb. MUTTON—Wethers, 7 @ 7 1/2c per lb.; ewes, 6 1/2 @ 7c per lb.; lamb, spring, 7 @ 9c per lb.

Vegetables.

Tomatoes are firmer under lighter receipts. Other early vegetables from the southern part of the State are reported to be weaker under freer receipts and the high prices being against much of an increase in the consumption. With mild weather, vegetables

from the near-by counties will make rapid growth which will soon give us liberal supplies from this source.

Onions are without essential change. There is a large overstock of poor keepers which being forced on the market keep prices down. The very low prices, so far this year, will, it is said, cause less attention to be given to their cultivation this year.

The same unsatisfactory market for potatoes, heretofore reported, was the prevailing feature last week. Heavy receipts and no decided outlet are against values. It is claimed by dealers that all indications warrant the assertion that high water will be had this year on the Sacramento and San Joaquin rivers. This opinion is based on the heavy deposits of snow in the mountain ranges. With high water in the rivers the acreage seeded to potatoes will be less than two years past.

Cabbage continues to rule weak and unsatisfactory. The demand from the central markets this season has been almost nil.

Feedstuff.

In ground feed there is very little doing. The consumption is largely restricted by reason of the good pasturage. The output of bran and middlings is said to be lighter than usual at this season of the year, which keeps values from breaking much.

Choice to extra choice hay is not in liberal supply, but prices are kept from advancing by the lessened demand, owing to good pasture. Present appearances are favorable to a large crop this year.

Miscellaneous.

From the *Commercial News* of Jan. 22d, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port	212,648	251,330
On the way to neighboring ports	40,984	73,870
In port, disengaged	26,522	79,371
In port, engaged for wheat	28,398	38,439

Totals 358,552 | 443,010 |

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to Jan. 22d, the following are the exports from this port:

	1889.	1888.
Wheat, cts.	8,485,435	5,176,784
Flour, bbls.	424,442	397,442
Barley, cts.	1,135,115	845,670

Poultry has been fairly steady the past week. The receipts by rail from both Oregon and the central markets were only fair. California stock is still given the preference.

Beans are dull and heavy. To place a large parcel, concessions are necessary. There is considerable poor in the market for which buyers are few, and then only at very low prices.

Comb honey continues weak. Extract is scarce, but weak. The outlook is favorable to a large crop this year.

In hops, there is nothing doing. Supplies are light, as is the demand.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations while very poor grades sell less than the lower quotations.

BEANS AND PEAS.		Soft shell.....	10 @ 12
Bayo, chl.....	2 00 @ 2 50	Paper shell.....	14 @ 15
Butter.....	2 50 @ 3 00	Brazil.....	8 @ 10
Pea.....	1 85 @ 2 00	Pecans.....	10 @ 17
Red.....	2 00 @ 2 30	Peanuts.....	4 @ 6
Pink.....	2 25 @ 2 40	Filberts.....	10 @ 12
Large White.....	— @ —	Hickory.....	5 @ 8
Small White.....	1 80 @ 2 00	POTATOES.	
Lima.....	3 25 @ 3 50	Early Rose.....	40 @ 50
Old Peas, h. key.....	1 50 @ 1 75	Ohle.....	40 @ 65
do green.....	1 50 @ 1 75	Fearless.....	21 @ 65
do N. E.....	1 25 @ 1 45	Early Rose.....	40 @ 50
BROOM CORN.		River Red.....	25 @ 45
South'n ton.....	80 @ 80 00	Burbanks.....	50 @ 90
Northern.....	80 @ 80 00	Cuffey Cove.....	50 @ 70
CHICORY.		Sweet.....	80 @ 1 25
California.....	5 @ 6	6 Tonales.....	60 @ 75
German.....	6 @ 7	HENS, CHICKEN, DUCK, AND GAME.	
DAIRY PRODUCE, ETC.		Hens, doz.....	6 00 @ 7 50
BUTTER.		Roosters.....	5 50 @ 6 00
Cal. Com. to fair, h. 15 @	17 1/2	Broilers.....	3 50 @ 4 50
do good to choice 20 @	22	Geese, tame.....	7 00 @ 10 00
do Fancy brands 24 @	25	Geese, pair.....	2 00 @ 2 50
do pickled.....	— @ —	do to Goolings.....	— @ —
do in tubs.....	— @ —	Thursy, Goolr.....	14 @ 16
do in rolls.....	— @ —	Turkeys, heavy.....	10 @ 12
CHEESE.		do dressed.....	15 @ 18
California, B.....	10 @ 13	Rabbis, doz.....	1 0 @ 1 25
Eastern style.....	12 1/2 @ 14	Hare.....	1 75 @ 2 25
EGGS.		Quails.....	1 00 @ 1 50
Cal. ranch, doz. 25 @	30	Mallards.....	3 00 @ 4 00
do store.....	25 @ 28	Springs.....	1 10 @ 1 25
Eastern.....	15 @ 20	Tea.....	1 25 @ 1 75
FEED.		Small ducks.....	75 @ 1 00
Brant, ton.....	13 50 @ 15 00	Cavau back.....	3 50 @ 5 00
Feedmeal.....	28 @ 29 00	Gray geese.....	3 00 @ 3 50
Gr'd Barley.....	19 @ 20 00	Brant.....	1 25 @ 2 00

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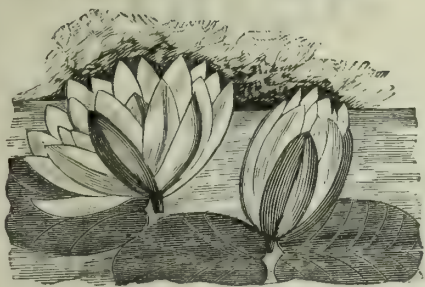
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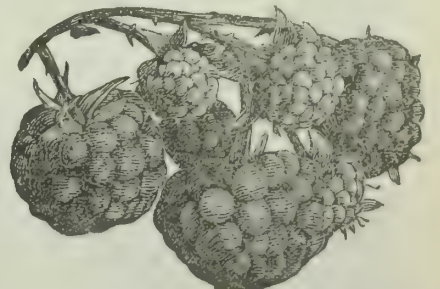
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BUENA VISTA RANCHO

Leaves San Francisco

—ON—

Tuesday, Jan. 29, 1889

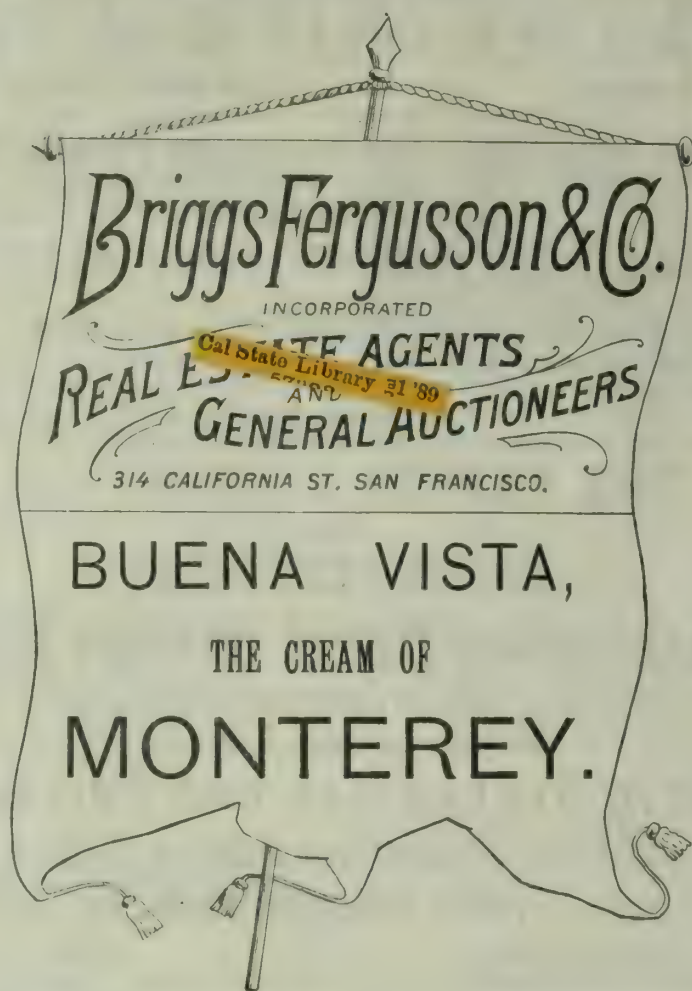
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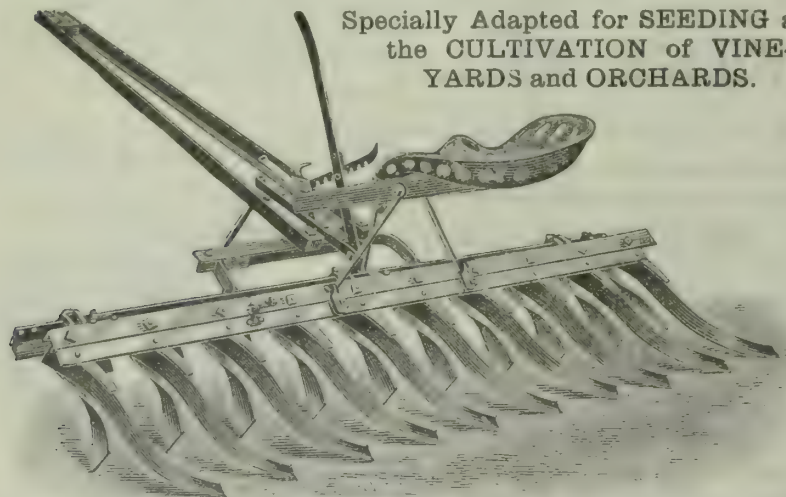
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Official Organ for California]

GRANGE EDITION.

[And Oregon Grange Advocate.

Vol. XXXVII.—No. 5.

SAN FRANCISCO, SATURDAY, FEBRUARY 2, 1889.

{ \$3 a Year, in Advance.
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The Date Palm in Fruit.

We have had a number of allusions to the date palm in California and engravings of the tree and the fruit, but none which presents the subject so directly and forcibly as the large photo facsimile on this page made by the

his oldest son, Edward Wolfskill, a prominent business man of the town of Winters, appears upon the step-ladder. Aside from the personal interest which pertains to these portraits, their figures serve to show the height of the palms.

The engraving shows the male and female date palms, the taller tree on the left being of

smaller palm began bearing fruit in 1877. It was then 15 years old, as the seed, taken from a dried date, was planted in 1862. The fruit is of a red color and becomes ripe and of good flavor. As the fruit ripens it turns black and falls.

The photograph from which our plate was made

is so near the residence that the ground around it is continually hard-tramped and it is crowded by large olive trees and other growths adjacent, and yet it is full of thrift. Until two years ago it was not irrigated, but the scant rainfall has led to its refreshment artificially.

The success of these dates and others in the



DATE PALM IN FRUIT ON THE GROUNDS OF J. R. WOLFskill NEAR WINTERS, YOLO COUNTY, CAL.

Dewey Engraving Co. from a photograph by W. R. Nutting of this city, who has given much attention to the catching of horticultural subjects with the camera.

The engraving is interesting from several points of view which we will briefly sketch. The scene is in front of the residence of J. R. Wolfskill, who, since 1842, has made his home on the south bank of Putah creek. The pioneer himself, in his eighty-sixth year, still full of interest and activity in horticulture, which is his chief delight, is seen in the foreground, while

the masculine persuasion. Even though the trees are so near, it is found necessary for fructification to take the blossoms from the taller tree and suspend them near the opening bloom of the bearing palm. It has been observed also that the fruit growing on the side of the cluster nearest to the suspended branch is perfect, and has seeds, while on the side farthest away many imperfect fruits are seen. For this reason the male bloom is broken to pieces and they are hung up here and there around the prospective fruit clusters. The

was taken about the middle of October, 1888, and some of the fruit was then ripe, and the mass of fruit was estimated to be twice the size of a flour barrel. About November let a cluster was taken from the tree and brought to the office of the State Board of Trade in this city, where it was suspended in the front window and was the admiration of all visitors. It has hung in the same place for nearly three months, and some of the fruit is still in eatable condition.

The tree is not in a favorable situation. It

same neighborhood of which we shall soon present another engraving, shows well how important it is that more attention should be paid to this fruit. All California date palms are seedlings. The University Experiment Station is now endeavoring to secure the importation of the best Algerian varieties, which have to be secured by buying suckers or offsets from the most famous African trees. We trust the effort will succeed, for it is just as important that we should have the best varieties of dates as of other fruits.

THE VETERINARIAN.

Equine Dentistry.

W. McLean, V. S., writes to the Portland *Oregonian* as follows: Veterinary surgeons who thoroughly understand the processes of digestion, the kinds of food to be digested and the composition of the tooth to do the work, know well that the less interference with the teeth the better for the horse and the digestive apparatus. There is not a veterinary dental school in the world. If such a thing were needed, scientific men would take it in hand and organize a school to advance men in the science, so that they would be useful to the community at large. But since there is no chance for scientific men to make a profession out of it, we have men going through the country claiming they are veterinary dentists, and yet they could not tell you the difference between the composition of a horse's tooth and a pebble-stone on the street; neither could they tell the kind of food a tooth was calculated to masticate, were you to bring a tooth to them. These things should be and are thoroughly understood by veterinary surgeons. What I mean by veterinary surgeons are men who graduated honorably at authorized veterinary colleges, for none other are veterinary surgeons. How men can presume to be veterinary surgeons or dentists and yet cannot describe the process of digestion, cannot tell the function of the salivary glands, cannot tell the composition or growth of the teeth, cannot tell the changes that are taking place in the processes of digestion at the mouth, the stomach, and on through the digestive canal, cannot tell the composition of the blood, the functions of the liver, the pancreas, the lungs, the kidneys, and the same with all parts of the body, passes comprehension.

As my subject is veterinary dentistry, I must return to it.

I do not for a moment say that the horse's teeth do not need attending to. This would be erroneous, for many times the teeth need filling, and often have to be pulled out, the same as in man, but not nearly so often. The kinds of food must be taken into consideration. We find the horse entirely a herbivorous animal, and the food must be ground, not crushed as for man. Then it would be foolish for men who know this to take a file and work the teeth down smooth. It will do for man's teeth to have a smooth, flat, crown surface, because he requires to crush his food where the horse requires to grind his with a lateral motion of the jaws. We have the same substances entering into the horse's teeth that man's teeth are composed of, only differently arranged. In man's teeth we have the crown surface as well as the body of the tooth above the gums encased with a solid coat of enamel. Inside of this coat we have the dentine and crusta patrosa, cementum, each in its respective place—the dentine making up the main body of the tooth, and the cementum covering the root or prong of the tooth. If the enamel becomes broken or destroyed in any way so as to expose the dentine, decay will soon take place. In the horse we have enamel, dentine and cementum, the same as in man, only differently arranged. All these substances are exposed to the atmosphere all the time. There is no crown surface of enamel the same as in man. On the outside of the horse's tooth we have a thick layer of enamel surrounding the whole body of the tooth above the gums. Next to this coat of enamel we have a thick layer of dentine, then two rings of enamel in molar teeth and one in incisors; then the inside of the rings is filled with cementum. Thus the reader may see that all substances of the horse's tooth are brought into wear all the time, and yet exposure to the atmosphere does not decay the tooth. The teeth are the hardest substance of the body, and it is folly to think we can work a pair of tooth-shears in all horses' mouths without danger to the teeth.

Horses' teeth rarely decay unless they are fractured, and I know of no better way to fracture teeth than with the tooth-shears, as the enamel once destroyed is never reproduced again. It is true the outer edges of the upper teeth and the inner edges of the under teeth wear sharp, owing to the grinding motion being from side to side and not a downward crushing motion, the same as in man. These sharp edges do no particular harm unless the horse lacerates his tongue or cheeks while eating. If such is the case, it will be easily seen, as the horse will dribble saliva from the mouth or drive on one rein or fight the bit when the bridle is on.

Our so-called horse-dentists tell us bowel troubles are produced by the teeth, which might be true in one case out of two or three hundred horses affected in that way. I find, in practice, where I have one old horse afflicted with bowel trouble I have three or four young horses from five to six years old, and as all horsemen know, the teeth are all up and in wear at six years old. The idea is untenable that the teeth are the cause of bowel trouble when the horse is in the prime of life. The cause in a great many cases is that the animal is young and vigorous and his appetite is ravenous when he is worked hard, and when he comes to his feed he gulps it down, not taking time to chew it, and as his food is chiefly a starchy matter, it must be thoroughly masti-

cated in order to become thoroughly moistened with saliva, which has the power of converting starch into sugar. I admit teeth get very uneven sometimes and need attending to, but long, projecting teeth are not found when the teeth match evenly, for a tooth in the upper jaw could not grow long, because its fellow in the lower jaw would keep it crowded back. We may have a lack of nutrition to a tooth in the lower or upper jaw; then the growth of the tooth would be impeded. Such being the case, the opposite tooth above or below, as the case may be, would grow longer. If such is the case, a small portion of the tooth ought to be removed, by a file or shears, to give the opposite tooth a chance to grow up. If the projection is very great, and the tooth is cut down even with the rest, there must be a large space between the teeth that food will collect in and decompose, and in all probability destroy the tooth. A better plan would be to file it down gradually from time to time. When the outer edges of the upper teeth and the inner edges of the under teeth get sharp, a file is all that is needed, and there is no danger of cracking the enamel of the teeth and setting up decay and ruin to the teeth.

There is small use for quacks in any profession, and less for the quack who preys upon the dumb brute, who cannot tell his pain. I might be asked how it is that professional men cannot run quacks out. I can safely say that two out of three cases of ordinary disease will get well by good care and nursing, a fact that gives the quack a percentage to work upon, because he is generally a good nurse, although I can mention cases in this city where a quack would have nursed a number of cases to death had not timely interference been brought about. I will say, further, that a quack saves no cases where a knowledge of pathology is required in order that medicines may be given to counteract the disease.

SERICULTURE.

The Work of the State Board.

From the great demand for mulberry trees and cuttings it is evident that the number of persons interesting themselves in silk culture is increasing rapidly. The nurseries keep few mulberry trees. The State Board of Silk Culture volunteered to supply all applicants, but a limited appropriation has prevented the managers importing as many as they desired. Nevertheless several hundred trees and cuttings have been sent out until now the supply is exhausted. The imported trees are of the *cattaneo* Italian variety. They were obtained from near Milan. Cuttings have been sent out from old white mulberry trees on the Sellers place near Brentwood, Contra Costa county. Letters come daily from all parts of the State asking about methods and means of silk culture, and Secretary Rienzi and her assistants are kept very busy answering questions relating to all branches of the interesting subject.

An idea of the widespread interest in silk culture is given by the list of localities to which trees or cuttings have been forwarded. They went to San Leandro, San Jose, Berkeley, Fresno, Santa Rosa, Colfax, Los Angeles, San Diego, Tulare, Santa Barbara, Ventura, Marin and Solano counties, St. Helena, San Luis Obispo, and many other points.

The directors of the Board ask for an appropriation of \$10,000 for the next two years. It is clear that the industry is being developed very rapidly all over the State. Arrangements are now being made with Eastern firms for the product of the Board's filatures. A. Paterson, N. J., firm has offered to take all that can be supplied. Eastern manufacturers compliment the directors on the quality of silk produced. A new engine is desired at the filature and other improvements are needed.

The Secretary's biennial report, now in the State Printer's hands, gives many facts of interest. Last spring the Board reared more than eighty thousand worms in its rooms in the Flood building. Because of lack of funds no exhibits have been made at the fairs. Custom House figures show that the value of raw silk imported into this port from China and Japan during the year ending June 30, 1888, was \$12,069,430. These figures show how necessary it is to develop this industry in the United States, so that that amount of money may be kept here at home. With a little encouragement from the Government of our State, in a few years the women will be so educated in the silk industry that they will be able to raise all the silk consumed in the United States. The Board has distributed silkworm eggs to parties wishing to rear the worms. The subject of silk culture has been attracting a good deal of attention in the southern part of the State, particularly around San Diego, from which place the Board has received numerous communications asking for information. One gentleman writes he has already prepared ten acres of land to be devoted to the industry. Another writes that he has made several successful experiments and has decided to devote his time and money to the silk industry. In no case is there any doubt expressed as to the final result. The report notes that a diploma of merit was awarded to the California Board of Silk Culture for a meritorious display of silk at the New Orleans Exposition.—*Evening Bulletin*.

THE FIELD.

Growing Sugar Beets Near Watsonville.

A short time ago, in alluding to the season's run of the Watsonville sugarie, we promised some account of the farmers' experience in growing the beets which might be instructive to other farmers contemplating such a crop. We condense as follow from the *Pajaronian*:

It is now about a year since arrangements were made to start sugar-beet cultivation in Pajaro valley. Claus Spreckels made the move and the farmers seconded his motion by entering into contract with him by which they pledged themselves to plant and work a certain acreage of beets, he furnishing the seed, and, moreover, giving directions how to plant, cultivate and harvest the beets. Mr. Spreckels bound himself to pay \$4 a ton for beets that polarized 14 per cent saccharine, and more if they yielded above that standard.

The beets have now nearly all been harvested and delivered at the beet factory in Watsonville. By looking over the whole field of this industry for the first year of its trial, every candid observer must say that both parties of the contract have endeavored to carry out what they agreed upon, but nevertheless there is more or less general dissatisfaction among the beet-growers about the results obtained. The general cry is, "they don't pay \$4 a ton." What Mr. Spreckels says about his pay we do not know; he does not and cannot accurately know before he has made his settlement at the end of the season. But this is a known fact, that he is well pleased with the quality and also with the quantity of the sugar percentage. The farmers can already tell whether it is for them a paying industry the way they have been raising them this year—more or less under immediate directions and control of Mr. Spreckels' agent, and they all agree "they do not pay for \$4 a ton."

The great complaint farmers make against the raising of beets is, "there is too much manual labor; too much to do with the hoe in cleaning and thinning." In answer to this it must be admitted that there has been too much of that kind of work the past season, and it must also be stated that in America, and especially in California, farmers are not accustomed to work with hoe and spade, and that that kind of hired help is really too high to be paid for by farmers. Machines do our principal work, not only in cities but also in the country. But is there no other way of cleaning our beet-fields other than to do it with the hoe? Can we not plant the beets in such a way as to work them with the cultivator, sow them with the common drill? I think we can.

In pulling, or rather loosening the beets, use the cultivator, only exchange the shovels for the pointers. By growing the beets that way, the manual labor with hoe and shovel would be reduced to at least one-eighth of last year's work, if not to one-tenth, and the pulling the same.

Another objection is, "the topping and cleaning is too tedious work." There is some truth in that; it is tedious, slow and expensive. But could no machine be invented to do some of that work?

The beet industry adds another branch of agriculture to this fertile valley, and for this reason it should be fostered as much as possible. Besides this, the sowing of beets and the harvesting of them fall in seasons when our California farmers are not very busy. Wheat and oats and barley have been sowed when beets must be sowed, and in fall these crops have been harvested when the beets are ripe and fit for the factory. The beets come in, as it were, to fill a kind of gap in our agriculture that could otherwise not well be utilized except in some cases by useless going to town and spending the time there talking politics.

Beets may be attended, cleaned and weeded by women and children, as we saw last year. Many boys made good wages who would otherwise have been doing nothing. They tend to banish idleness, the fruitful source of mischief.

The cash we receive is not the only value the farmer gets for his labor. The pulp at the factory, of which the beet-growers get a share, is worth considerable, especially as it is ready for use at a time when the pastures of California are poor. At the beginning of this season, when the hills were bare and dry, the farmers were very anxious to get the pulp for their stock, and even those who did not have any beets to deliver at the factory, because they had been too timid in contracting with Mr. Spreckels, did not refuse the good pulp for their cattle.

There was one blunder made by many beet-growers this year; they planted too many acres. Instead of cultivating 10 acres they had 40 or 50, even more. That was too much for proper attention in the time of harvesting. By planting in a different manner it may do well enough to have that many acres, but even then the acreage should not be too large. Next year they will be more careful and not contract for more than they can properly manage.

Another Grower's Experience.

"Does it pay to raise beets?" was the first question asked Geo. D. Rodgers by a Santa Cruz *Sentinel* reporter Friday.

"It paid me," promptly replied Mr. Rodgers. "I realized a profit of \$42 per acre for the five acres I put in beets. The average yield of my land was 16½ tons of beets to the acre, and the beets averaged 16 per cent of saccharine matter. I received for my crop of beets \$5.50 per ton, or \$458 33½."

"I allowed myself \$3 per day for the work I did, with one team. It took me three days to plow the land, one day to plant, three days to cultivate twice over. All the work was done by myself. It cost me \$1 per acre for weeding out, and \$12 per acre for thinning out the beets."

"By the way, the thinning out, I have not the least doubt, will be done away with next season, as improved machinery for planting the seed will be used."

"But to continue: my beets grew nicely, and in due season were plowed up by myself, which required three days' time. Then came the expense of topping off and loading the beets into the wagon, which was done by hired help, and amounted to \$1.05 per ton, or say \$41 65 for the job. I understand that others only paid 60 cents for the same work. I hauled the beets and allowed myself and team 50 cents per ton. As I said before, I realized a profit of \$42 per acre, that is, allowing a fraction over \$24 for miscellaneous expenses."

"And then there is the feed and the lime which the farmers are allowed at the factory, in addition to the above, which in many cases has been sold by them at from 50 cents to \$1 per load."

"The same land on which my beets were raised is an orchard, from which I realized \$100 on fruit."

"Do you propose to raise beets next season?" asked the reporter.

"Not on the same land. If Mr. Spreckels will offer better facilities for unloading the beets, I will put in five or more acres in another part of my orchard. I would rather run the chance of getting a good crop of beets than anything else that is adapted to growth in the Pajaro soil."

"You say you will raise beets if Mr. Spreckels will furnish better facilities for unloading. What is there in this that causes trouble?"

"Considerable time is wasted in waiting to get the beets weighed. I have spent as much as an hour at a time waiting to drive on to the scales. You see there is only one set of scales, and we have to weigh the beets and then the empty wagon. At times there are 40 wagons at the scales. However, Mr. Spreckels informs me that this matter will be remedied next year, and that four extra bins will be built."

THE DAIRY.

Marketing Butter.

EDITORS PRESS:—Our farmers' wives object to butter-making because of the unremunerative prices, and many of them either make cheese or let the calves have the milk. Butter may range ever so high in our city markets, yet the butter from the country seldom reaches a price that farmers can afford to make it. Then again, the groceryman, though he may assort and receive different prices for his butter, has one general buying price, and *strong, able-bodied* butter, grease, or cheese will bring as much from the average county groceryman as the sweet, firm, golden and best butter. This of course is all wrong. The *Journal of Agriculture* suggests a remedy: Let farmers grade and pack their butter in new tubs and form clubs. By this means of co-operation butter-making may possibly become remunerative. There is no better place to discuss this subject than in the Subordinate Granges. The next trouble to arise would be to find a buyer. Strange that this should be the case, yet there exists no doubt on this point. It is well known that perfect organization exists between grocery-men and the wholesale or commission men. A groceryman in Portland was anxious to have farmers from Marion county ship eggs and good butter direct to him. He would pay the market price less the commission! If the farmer is to have all the trouble of shipping his products and then receive no more than if they were sold through the commission men, where is the gain to the farmer? A compromise might be advisable.

Turner, Or.

The Flavor of Butter.

At a recent meeting of dairymen in Sherman, New York, an old and reliable butter-buyer remarked that the standard quality of butter in Chautauque county is not as high as it was 25 years ago. The question was asked, it is true, what is the cause? This is the answer given:

Twenty-five years ago there were nearly 400,000 sheep in Chautauque county. They, in a large measure, cleaned the pastures of weeds and rubbish, turning into the best of wool what is now a nuisance and the first cause of bad butter. The sheep are gone, and now our pastures and meadows blossom out with white and yellow daisies, rag weeds grow up, golden-rod beautifies the fields, toad plantain runs up its seedy rods, adder-tongues speckle the hills. All of these and many others grow luxuriantly in this county. Cows eat them, and thus every pound of butter is made bitter, and it is impos-

sible to make good butter from such feed. Rest assured any bitter herb taints and defects the butter.

Second—In many cases during the latter part of the summer cows do not get plenty of pure water, so essential to the making of fine butter. Now springs and brooks fail much sooner than 25 years ago.

Third—In some cases cows are driven to and from pasture by dogs. Cows that get hot and nervous give milk that is fatal to good butter, and will taint the entire lot. To make good, sweet butter, it requires healthy cows, good, sweet feed, pure water and gentle treatment.

If these are the causes for reducing the high standard of butter in New York, may they not be the cause of the low standard of some butter? We would suggest that where there are no sheep to keep the pasture clean, a hoe be used, and that everything you would not cut for hay be cut with the hoe. If you have not facilities for having water where your cows can help themselves at any time, give them an opportunity to do so at least three times a day, and don't dog them.

POULTRY YARD.

Notes on California Practices.

We understood from pretty good authority that there has been a little sharp practice indulged in by the egg speculators. When fresh ranch eggs were selling readily at 45 and 50 cents per dozen, Eastern eggs were plentiful at 30 cents. The plan was to ship the Eastern eggs out into the country and then gather them in as fresh ranch eggs. Of course experts could not be fooled that way, but the people were, and it had a bad effect on the market for good eggs.

Southern California is having a boom in chickens, and it is time they were doing something to keep up the reputation of California as a producing State. The carloads of poultry and eggs that have come into the State this season are proof enough that one cannot miss it far by raising some chickens.

If you want to fatten fowls or chicks quickly, give them plenty of milk—sweet, sour or buttermilk. A handful of bran stirred in the milk will be much relished by them. Add to the mess enough salt and pepper to season. This, fed with a grain diet, counteracts all deleterious effects of either the grain or the milk. No water is necessary when milk is fed.

Quarantine all new stock, even if from best sources, until found to be free from vermin and disease.

Feed the breeding stock well and get them in good condition. A little hemp and canary seed occasionally will be relished and do them good.

If in need of new stock, buy early; you will stand a better chance to get extra good stock, and if not suited you will have a chance to buy again before the season is too far advanced.

Lime and ashes are disinfectants. Use them freely, no matter if they dim the brightness of the yellow legs; it is better to have healthy fowls with dingy legs than sick ones with yellow legs.

Spend as much time as you can afford with your fowls, and don't be afraid to handle them. Keep them quiet and tame and they will be just as profitable and give you many times more pleasure.

If your fowls are backward in molting, give them flour of sulphur; a tablespoonful mixed with a quart of soft feed will be found beneficial occasionally. The shedding of the old feathers and the forming of the new ones occasions a great drain upon the vital powers of the fowl, and this waste should be supplied artificially, and especially if the fowls are confined. As the new feathers are largely composed of sulphur, in order to form them rapidly and easily, nature should be supplied and assisted.

This is the season when you should give the Douglass mixture frequently in the drinking-water. It is one of the most useful medicines in the poultry-yard. Dissolve one pound of sulphate of iron in two gallons of soft water; then add four ounces sulphuric acid; when thoroughly mixed add one ounce of phosphate of soda and one tablespoonful of table salt; keep in a glass demijohn. Be careful with the sulphuric acid; besides being a deadly poison it cauterizes wherever it touches. Use about one ounce of the mixture to each quart of the drinking-water twice a week.

Don't forget to supply the fowls with a variety of food; they like it as well as you do. The season approaches at which the supply of vegetable and insect foods are cut off. These must be supplied by the breeder. Don't feed much corn; on very cold days it may be given at night. Burning it occasionally adds variety, and the burnt grains are very much relished by the fowls. Feed cut clover-hay steamed thoroughly three times a week, in the morning; season with salt and pepper, and add meat scraps or fish to the mess. For the rest of the week give for breakfast corn and oats, chaff and bran, stirred up with boiled vegetables of any kind, adding a few handfuls of linseed meal. You will have no scarcity of eggs if this system of feeding is adopted, and at the same time they

will not only be very fertile but strong in vitality.

Palmer T. Reed of Sierra Madre writes: The capon will weigh from one-quarter to one-third heavier and put on nearly double the breast of a cock. The flesh is finer, more tender, and of better flavor. There is just as much difference in the quality of the meat between a capon and cock as there is in a steer over a bull. And then your capon is an orderly citizen—not prancing and tearing around, asking some fellow to knock a chip off his shoulder; his sole object seems to be to put himself in Al condition for the table. I even caponize that best of layers, but worst of all table fowls, the Leghorn. Raising eggs for market, I believe my chickens do better with a free run. Turn loose 40 or 50 young Leghorn cocks in my flock, and there is a row and turmoil all the time. As a capon he becomes quiet and makes a very nice roast. We prefer at home the Houdan capons, but for the market I have found the Light Brahmas the best. The Langshans I have never tried, but expect to next spring. Don't let any one be fooled into raising chickens with capons. He is not much more than a warming-pan; broods well, but thinks of his own crop first, and can't cluck worth a cent.

H. R. Bickford of Monterey writes: The dimensions of my poultry-house are 10 feet wide by 20 feet long. The room where the roosts are is 10x16 feet, the net-room is 4x10 feet, the front is 8 feet 6 inches high, and the back is 6 feet. The front is covered with lattice down from the top for 2 feet for ventilation. The roosts are 3 feet high, and are on a level to avoid crowding, and are set on posts, and are held in place by a peg in the top of the post. The roosts are held in place on the roost beams in the same manner, so they can be taken out and cleaned in a minute's time. The nests are all made separate, so one can be taken out and cleaned or turned around to set a hen in and not disturb the rest. They are placed against the opening in the partition, on a rack one foot high. This house will hold at least 100 hens without any crowding.—*California Cackler*.

THE APIARY.

Honey-Boards.

The *American Bee Journal* of Jan. 12th has an essay by James Heddon on the history, uses, etc., of honey-boards, from which we quote as follows:

Older bee-keepers will remember that Father Langstroth made and introduced, with his excellent hive, a rack, frame or board, whichever we may choose to call it, which was placed intermediately between the surplus receptacles and the brood-chamber. This was a $\frac{3}{4}$ -inch board with three slots running crosswise, and consequently crosswise of the brood-chamber and frames below. Upon this board, surplus receptacles were placed, having slots which were made to range with the slots of the honey-board, making a passage for bees, keeping the bottoms of the receptacles clean, and facilitating the operation of getting the boxes on and off—a very important aid in the days when we had no smokers and less knowledge of how to handle bees.

From this board I began my operations, which resulted in the break-joint, bee-space honey-board, which has now become so popular the world over. I got my first idea of a bee-space in the honey-board from a desire to use a honey-board which would maintain perfect bee-spaces everywhere and leave a perfect bee-space between the surplus receptacles and the brood-chamber when it was not in use. Of course no honey-board could do this unless it contained a bee-space in one of its surfaces. Very soon after constructing and testing, to my great satisfaction, the bee-space principle of the honey-board, I struck upon the plan of having many openings, creating the general surface of the board of slats, and having these slats and the spaces between them so arranged that the slats and spaces exactly break joints with the top bars (and spaces between them) of the brood frames below; which, while it gives a perfectly free communication to the hive, making a passage for the bees from below to the surplus receptacles above, at the same time breaks the direct communication, almost wholly preventing the building of brace-combs between the top surface of the honey-board and the bottom of the surplus honey receptacles above.

While it has a tendency to lessen the amount of brace-combs which will be built in the bee-space between the top bars of the brood frames below and the lower surface of the honey-board, yet it does not entirely prevent the brace-comb building there; but this does not matter much, as we do not remove the honey-board anywhere near as frequently as we do the surplus receptacles which rest upon the honey-board. So now we can work the tiering-up process with surplus receptacles without the annoyance of brace-combs.

A little study will soon convince the practical hive-maker that no honey-board of any value can be made that does not contain either one or both the bee-space and break-joint principles. If a honey-board is made without the bee-space principle, the material in it must be thick; and the thicker the slats which form the general surface of the hive, the more apt are the bees to build brace-combs between their

edges, and the heavier, more bungling and expensive is the honey-board. It must be thicker, in order to have any solidity, but where the bee-space is used, the space is formed by the thick outer rim which gives the honey-board its solidity.

Then again, the only way the tiering process can be worked with the surplus receptacles over a honey-board, without a bee-space, is by putting the bee-spaces in the supers, at the bottom, rather than the top, which is very objectionable, for reasons too numerous to mention here. There are few beekeepers but that have discovered their mistake, if they ever put the bee-space at the bottom.

This break-joint principle also tends to keep the queen below, and I will say that there is so little trouble from queens getting into the surplus receptacles, when these honey-boards are used, and the honey-comb is the production, that it is hardly worth while to make them queen-excluding. But for the production of extracted honey, it is well to have them so, and there are many conveniences even in comb-honey production, in having the boards queen-excluding; consequently for the last four years we have used all of ours that way.

The best method of making them queen-excluding is to run a narrow saw-knife into the edges of the slats, and as the honey-board is put together, slide in a narrow piece of zinc containing one row of queen-excluding bee passages.

While Father Langstroth was my honored guest last spring, I perfected a new invention for queen-excluding honey-boards, which greatly pleased him. It was tested, and proves to make a very excellent arrangement; although, perhaps, it is not much better than the combined wood and zinc board. It consists of an all-metal honey-board containing the same rows of queen-excluding bee passages, placed on the break-joint principle, the same as the other honey-board. For my eight-frame hive, eight rows of openings are made, and in such position that they come directly over the center of the top-bars of the brood-frames below. The whole honey-board is a quarter of an inch shorter and narrower than the wood honey-board. This contraction in the dimensions prevents all bother from corners of the supers slipping down in. Now this is a complete honey-board, the very best in the world for the avoidance of the brace-combs, both owing to its composition and thinness of surface, but it has the objection of being liable to bag in the center, or "sag," as some say. To avoid this, two A or V-shaped pieces of heavy tin are soldered to the under side of the board (when in its normal position); and although they are so large that they come down as much as three-eighths of an inch, still they will not touch the tops of the brood-frames, because each stiffener (as we will call them) points to the center of a space between the brood-frames, so that the bees pass all around them freely. This makes a complete board.

There is no absolute necessity for these stiffeners, but the beekeeper needs to learn how to manipulate the all-metal honey-board. He should not pry it loose and then lift directly up on the corners, but after loosening the propolis about the edge, give it a lateral twist and it cuts the brace-combs and twists them in two.

THE IRRIGATOR.

Government Work for Irrigation in California.

The following is the correspondence between Gov. Waterman and the Director of the U. S. Geological Survey, relative to the irrigation of the arid lands of California, to which we alluded briefly in last week's *RURAL*:

SACRAMENTO, Dec. 10, 1888.

W. F. Vilas, Secretary of the Department of the Interior, Washington, D. C.—SIR: I am informed that at the last session of Congress an appropriation was made for the survey of the arid regions of the United States with a view to ascertain the best location for reservoirs for the storage of water for irrigation and to reserve for public benefit such reservoir sites as are still upon the public lands. I am also informed you are now forming surveying parties for the purpose of such surveys.

My object in writing this communication is to present the claims of California to a share of the benefits which may accrue from the expenditure of this appropriation.

In support of this claim, I have the honor to represent that there are large areas of rich soils in this State which have a small rainfall. These areas have a semi-tropic climate, and with irrigation would grow semi-tropic productions of immense value. These areas are located along the eastern slope of the Coast Range, and extend from the northern portion of Shasta county to the southern boundary of the State, a distance of 700 miles. The average width of this belt is 20 miles, or 8,960,000 acres, which must be irrigated to be of public or private value. Intersecting this long belt of land there are a large number of streams, draining the whole Coast Range, which carry large volumes of water in the rainy season and which are dry in the summer and autumn months, when growing crops need water the most.

In the Coast Range, near the sources of these streams, there are narrow valleys, ravines and canyons that with small cost could be converted into storage basins for an inexhaustible supply of water.

It has been proved beyond doubt by experiments extending over a period of years that with water these lands will grow cotton, sugar beets, tobacco, oranges, lemons, prunes, apricots, olives,

raisins, grapes and many other semi-tropic productions, as well as a long list of deciduous fruits.

If these lands were cultivated to these various products they would supply much of the large amounts now imported from foreign countries. We have proved by ample experiments that 20 acres of such land, irrigated and planted to these semi-tropic products, will yield a liberal support to a family, and therefore you will see that this belt of land, now arid and comparatively valueless, would become the home of a population equal to that of some of our larger States.

The annual production and wealth which the development of these lands would give would be enormous. It is therefore of the first importance to the United States and to California that the steps contemplated by Congress in making this appropriation should be taken at once.

I respectfully invite your earnest attention to the claims of this section to a fair share of the benefits of that appropriation, and urge your early action thereupon.

R. W. WATERMAN, Governor.

DEPARTMENT OF THE INTERIOR,
UNITED STATES GEOLOGICAL SURVEY,
WASHINGTON (D. C.), Jan. 11, 1889.

To His Excellency R. W. Waterman, Governor of California, Sacramento, Cal.—SIR: Your favor of December 10th, in which you call the attention of the Secretary of the Interior to the desire of the State of California to share in the advantages of the irrigation survey, has been referred by the Secretary to the Director of the Geological Survey.

In response, I have the honor to assure you that the importance of irrigation survey to the agricultural interests of California is profoundly appreciated, and that there need be no fear that the State will fail to receive its due share of attention. As set forth in the accompanying executive documents, it is believed that the special surveys for the selection of reservoir sites and the segregation of irrigable lands should be based upon a general topographic survey, including the entire catchment basin of each stream. Such topographic surveys have been in progress under the direction of the Geological Survey for several years, and portions of Central California and Southern California have been included in this work. The appropriation made by Congress to initiate the special irrigation investigation could not be economically administered by the simultaneous institution of work in each of the 15 States and Territories of the arid region. As will be seen by the accompanying preliminary report to Congress, it was thought best to organize only five parties at the start and to select for the work of these parties a series of representative localities calculated to develop as rapidly as possible the methods of work which would prove most advantageous.

It is hoped the Congressional appropriation for the next fiscal year will permit the corps engaged in the irrigation investigation to be greatly enlarged, so that the work can be rapidly carried forward at a large number of points. J. W. POWELL, Director.

Director Powell Explains.

WASHINGTON, Jan. 23.—Major Powell, Director of the Geological Survey, explained today to the House Committee on Territories the plan for the reclamation of the arid lands of the West by irrigation. He illustrated by means of maps the location of the proposed reservoirs, dams and canals in the James river, New Mexico, and said he thought reservoirs could be constructed for \$450,000, whereby 155,000 acres of land could be reclaimed. The lands were worth nothing now, but if reclaimed by irrigation would become very valuable.

Major Powell said that between 90,000,000 and 100,000,000 acres of arid land in the West could be reclaimed by irrigation. After the works had been constructed and in operation the annual cost to the farmer for irrigating his land would be from \$1 to \$2 per acre.

DIFFERENCE BETWEEN WOOL AND HAIR.—Although there is a very great difference between wool and hair, it is found quite difficult to correctly explain what that difference is—the one sometimes seems to run almost imperceptibly into the other. A correspondent of the *St. Louis Globe-Democrat* furnishes the following very interesting paragraph on this subject: The difference between wool and hair is not so great as might be supposed, since very fine hair bears a strong resemblance to very coarse wool; but when the microscope is brought into operation a marked difference may be observed. The surface of the hair will appear to be perfectly smooth, as though it were polished, while the surface of a fiber of wool is imbricated, as though the trunk were covered with infinitely small scales. A hair is therefore seen to be an entirely different thing from a fiber of wool; and a further variation is noticed in the fact that hair never curls in the way wool does, for hair—when it is curly at all—curls in long, wavy lines, and wool in short half circles, which almost return into themselves. The texture of wool is also varied by fine lines, from 2000 to 4000 in the inch; so, by means of the microscope, wool may be easily known from cotton or any other animal or vegetable fiber.

A NEW MEXICAN RAILROAD PROPOSITION.—Among the numerous railway enterprises which continue to be made public, one of the most ambitious is that of the Mexican Pacific, which contemplates a line from San Diego, Cal., southeast to the Gulf of California, thence south along the coast to Mazatlan and thence to the City of Mexico, a total distance of some 1900 miles. Such a line would run through regions abounding in coal, valuable woods, cotton and woolen manufactures and many other sources of traffic, while it would reach a vast population to whom a railway is unknown.

RAILROAD INCREASE LAST YEAR.—A total of 5790 miles of new road was added to the railroad system of the United States last year.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Greater Inducements for Subscriptions.

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Official Endorsement.

In consideration of a certain contract entered into this day between Dewey & Co., publishers, and the California Patron Publishing Company of San Francisco for the publication of a weekly Grange edition of the PACIFIC RURAL PRESS and the California Patron, as a monthly, resolved that the Executive Committee of the State Grange of California hereby designate and endorse the PACIFIC RURAL PRESS as the weekly organ and the California Patron as the monthly organ of the State Grange of California.

W. L. OVERHISER,

Master of State Grange of Cal.

A. T. DEWEY, Sec'y S. G. of Cal.

San Francisco, Cal., Jan. 11, 1889.

Worthy Master S. C. Carr.

Arrangements for Visiting the Different Granges.

As stated last week, Bro. S. C. Carr, Worthy Master of the Wisconsin State Grange, has agreed to devote one week to visiting the California Granges.

The suggested program for speaking has been accepted by all the Granges mentioned, as will be seen by the following replies to letters of inquiry sent them:

From Sacramento Grange.

A. T. DEWEY: DEAR BROTHER:—Your letter in relation to Bro. S. C. Carr's meeting with our Grange was duly received. I submitted it to our Grange yesterday, and they unanimously adopted your suggestion to meet on February 7th, Thursday, at 1 o'clock. They will call special meeting for that purpose, and will not hold regular meeting on the following Saturday.

Please give general invitation through your paper. We shall invite American River, Enderprise, Florin, Franklin, Elk Grove and Galt Granges to be with us that day, and give the brother in a distant land a hearty welcome, and, although away from home, he is among friends and kindred.

Bro. Carr has been Master of the great and growing State Grange of Wisconsin for 8 years, has been to the National Grange 7 times, where he has met and exchanged views with representatives from all parts of the Union, and has become thoroughly imbued with the wants of the farmer and the Grange. I bespeak for him a friendly and fraternal greeting, and let us show to him that we are alive to the great interest of the tillers of the soil, so that he may carry back a strong heart and determined will to labor in the great field before him. Fraternally yours,

Sacramento, Jan. 27th. DANIEL FLINT.

From Stockton Grange.

DEAR SIR AND BROTHER:—I received your letter on Friday announcing that you had made arrangements with Bro. Carr from Wisconsin to deliver a few lectures to the Granges and farmers of San Joaquin and Sacramento valleys, and would fill the following appointments: Tulare on Monday, Feb. 4th; Merced, Feb. 5th; Stockton, Feb. 6th; and Sacramento, Feb. 7th.

Stockton Grange met yesterday and made the following arrangements: To hold a Grange meeting in the forenoon, commencing at 10 o'clock, Harvest Feast at 12 m., and an open meeting at 2 p. m. At the Grange meeting all Patrons of good standing are cordially invited to attend, and at 2 p. m. the public, and especially the farmers, and their wives, sons and daughters, are invited. No doubt you will hear from the Secretary of Stockton Grange.

Stockton Grange has changed their place of meeting back to their old quarters, over Austin's store, where the State Grange was held. Now I shall expect you and Sister Dewey on that occasion. As you have arranged the meetings, I see there will be no chance for Bro. Carr to visit us on his way to Sacramento. I have written to him to so arrange his appointments as to stop over with us on his way back to Pasadena. I will write to Bros. Flint and Johnston and invite them. Now let us be up and doing, old leaders and all, and make this reception to our guest, the Worthy Master of Wisconsin, as hearty a California greeting as he could wish. He will not disappoint those who turn out to hear such a representative

Patron from the Eastern side. These discussions listened to by hundreds should prove of essential value to the farmers' cause.

Yours fraternally,

Stockton, Jan. 27th. W. L. OVERHISER.

DEAR SIR AND BROTHER:—At our meeting this day, upon the reading of your circular to Worthy Master Overhiser, Stockton Grange decided to have a reception for Worthy Master Carr of Wisconsin and party, on Wednesday, Feb. 6th inst. Grange to meet at 10 o'clock A. M., with a Harvest Feast at 12 o'clock, to which all members in good standing are invited, and an open meeting at 2 o'clock P. M., to which the public are respectfully invited. The meeting to be held in Good Templars' hall, corner of Main and American streets, Stockton. Yours fraternally,

Stockton, Jan. 26th.

From Tulare Grange.

EDITORS PRESS:—We will arrange for a public meeting to be addressed by Bro. S. C. Carr, on Monday, Feb. 4, 1889, at 1 o'clock P. M., and do all we can to make the meeting as much of a success as possible. Yours fraternally,

J. M. MOORE, M. Tulare Grange.

Tulare, Jan. 26th.

We are glad to hear so promptly from our Tulare wide-awake Patrons. We hope representatives from Hanford and Buena Vista Granges will turn out in good numbers. Such an opportunity for a good, rousing farmers' meeting cannot be expected often in Tulare county until more fully organized. Let each Patron and farmer learning of this meeting in time notify others.

From Merced Grange.

DEAR SIR:—Your favor of the 26th inst. at hand and contents noted. Please inform Master S. C. Carr that we will make arrangements to have him speak to us on Tuesday afternoon at 1 o'clock, Feb. 5, 1889.

We will thoroughly advertise the lecture, giving notice that it will be an open meeting for farmers "en masse." Full arrangements will be made to receive and entertain the speaker. Yours truly,

Merced, Jan. 26th.

From Yuba City Grange.

DEAR SIR AND BROTHER:—Yours with regard to Worthy Master Carr is at hand, and I hasten to say that the day of meeting suits us exactly (Feb. 8th) and will gladly make all necessary arrangements to meet the brethren. Bro. Frisbie will see you Wednesday. Fraternally yours,

Yuba City, Jan. 26th.

DEAR SIR AND BROTHER:—Your card asking for the hour is just at hand. I am inclined to think that 1 P. M. is perhaps the best hour we could select, and I therefore name that hour. This will give all those at a distance time to come, and I have no doubt we shall have a large attendance from this and Yuba county to hear Worthy Master Carr. Fraternally yours,

Yuba City, Jan. 26th. GEORGE OHLEYER.

From Eden Grange.

BROTHER DEWEY:—Saturday last I laid before our Grange your letter and inclosed slips touching the proposed visit of Brother and Sister Carr, and after conferring on the matter, the following resolution was adopted:

Resolved, That Eden Grange having received notice from the Secretary of the State Grange of the proposed visit, meetings to greet Bro. and Sister Carr, especially to listen to an address from Bro. Carr of the Wisconsin State Grange, which proposition is subject to the invitation of San Jose Grange, will cheerfully join Temescal Grange in providing for such meeting in case no action is taken by San Jose Grange.

Still I have little doubt but the San Jose Grange will avail itself of the visit proffered them, and if we would listen to the eminent Patron on Grange matters, I think we will have to proceed to the Garden City for such purpose. Fraternally yours,

Haywards, Jan. 26th.

From San Jose Grange.

BRO. DEWEY:—Yours of the 24th inst. was read in open Grange Saturday, and it was the unanimous sentiment of the Grange that your proposition be entertained, and that Bro. Carr, M. of Wisconsin State Grange, be invited to meet San Jose Grange Feb. 9th, and that the invitation be extended to Eden, Temescal and Contra Costa Granges, collectively or individually, as may suit their pleasure. Of course, we would like to have them all come.

We had a very interesting meeting last Saturday. The brothers and sisters were wide-awake and full of animation.

I can tell you, brother, that San Jose Grange started in with the new year on a "flood tide." "There is a tide in the affairs of men when taken at the flood leads on to fortune." Now we are going to try to keep in mid-stream. Every meeting has been better than the last, and every one has shown an increase in members. We have initiated one and have the names of others who are coming into the "fold." So you see we can give you some evidence for the faith that is within us. The star of hope gleams brightly and imbues us with a spirit of confidence.

The Grange is a necessity of the times, and I believe that its future will be more brilliant than its past, with all its glorious record.

Every tiller of the soil should be in the Grange; it is his home, and the sooner he finds it out the better it will be for him. We have got to be vigilant, for "eternal vigilance is the price of liberty." We have got to fight, and the sooner we join hands and buckle on our armor the better. What with syndicates, monopolies, combines, corners, trusts and "sympathetic" movements, God save the mark, we have either to fight or go to the wall.

I think the Patron's new dress very becoming. The RURAL and Patron combined make a very good team, and, I think, a safe one. The Secretary of San Jose Grange and myself were appointed to make all necessary arrangements for the reception of Bro. Carr, and all those who may be pleased to meet with us on Feb. 9th. We hope, then, that we shall hear from you as soon as possible, so that we can make all necessary plans. If it is decided to meet here, please let us know what train they will come on, so that we may be there to meet them, which we promise to do if we are apprised of their coming.

I see that I am spinning this communication out longer than I started in to, so will close with saying that we hope to have a good big meeting on February 9th, and one that will create and send forth an influence that shall be for the uplifting of humanity. Fraternally yours,

San Jose, Jan. 28th.

We see no other reasonable way but to let San Jose, the Garden City, with the indorsement of Eden, lead the way to a, no doubt, delightful time, and trust that the Alameda and Contra Costa county Patrons will do the best they can as to attendance. There is no better place to go, you know, Tulare always excepted, of course.

The Route.

Bro. Carr will probably arrive at Tulare by 1.25 A. M., Monday, February 4th, and will speak at Tulare Grange at 1 P. M. on the same day.

He will leave Tulare on the 1.25 A. M. train Tuesday, Feb. 5th, and arrive at Merced at 5 A. M. the same day. He will speak at Merced Grange at 1 P. M. Leave Merced on the 5 A. M. train Wednesday, arriving at Stockton at 8 A. M. February 6th. As will be seen by the above letters, Stockton Grange will hold a regular meeting at 10 A. M., and an open meeting at 2 P. M. on that day.

Bro. Carr will leave Stockton on the morning train for Sacramento, where he will arrive at about 10 A. M. Thursday, Feb. 7th. Sacramento Grange will meet at 1 P. M.

In going to Yuba City, Bro. Carr will take the Oregon express, which leaves Sacramento at 11 P. M., arriving at Marysville at 1.25 A. M. Friday. He will meet with Yuba City and other Granges in that vicinity on Friday, February 8th, at 1 P. M.

From Marysville he takes the 1.25 A. M. Oregon express Saturday for San Francisco, where he will arrive at 7.45 A. M. He will then leave San Francisco on the 10.30 A. M. train for San Jose, where he will arrive at 12.19 Saturday afternoon. He can then meet with San Jose Grange in the afternoon, February 9th.

Bro. Carr's first meeting in California will be held at Tulare, in Library hall. He will have such able and patriotic supporters as Deputy J. M. Moore, Bro. J. W. Mackie, Past Master Merritt and a score of other intelligent and go-ahead brothers and sisters.

It is expected that a goodly gathering of Patrons and farmers will greet Bro. Carr at Merced under the auspices of Merced Grange. The officers of this Grange are to be installed Saturday, Feb. 21. Bro. B. F. Frisbie of Yuba City, Deputy of Northern California, having been invited to act as installing officer, passed through the city this week on his way thither. A class will be instructed in the Third and Fourth Degrees, accompanied as usual by a Harvest Feast.

Worthy Master Overhiser has promised to meet Brother Carr at Merced. We have no doubt but a very interesting meeting will be held. The irrigation improvements and rapid growth of Merced city and its surroundings can hardly fail to interest an Eastern Patron like Brother Carr.

Yuba City Grange will meet at 1 P. M. in the Grange hall, and the meeting will be under the auspices of Butte County Pomona Grange on behalf of Yuba City, North Butte, South Sutter, March and Wheatland Granges.

WE wish to return thanks to the Masters and members of different Granges addressed in regard to the meetings to be held next week for their prompt and earnest attention.

FOR THE SOUTHERN COUNTIES, Bro. A. P. Roache has been appointed General Deputy by Worthy Master Overhiser.

From Tulare to Yuba City.

The prompt acceptance of the services of Wisconsin's Worthy Master by our Granges from Tulare in the south to Yuba City in the north, is very encouraging. The good work done by his brothers in the early days of the Grange in California certainly should not be forgotten.

The services rendered from the beginning of the organization by Dr. Ezra S. Carr while Professor of Agriculture in the College of California, and later in the State University, and his sincere interest in agricultural progress, are a part of the history of our State. His administration as State Superintendent of Public Schools, with his wife, Sister Jeanne C. Carr, as deputy, was an honest and satisfactory one, and Sister Carr, while Lecturer of the State Grange for two years, was an honor to her sex, her lectures being some of the most happy, instructive and brilliant efforts recorded in our Grange literature. They were the outcome of a warm and faithful heart, bright intellect and rich experience.

Dr. Carr's history of the Farmers' movement and Grange organization on the Pacific Coast is an able and exhaustive work, and one of permanent value in the annals of the State.

In the early efforts to establish the Indiana Colony and what is now known as Pasadena, Dr. and Mrs. Carr were among the first to join, when the enterprise was derided as a delusion. They still own some 40 acres adjoining the tract which they sold and which is now in the heart of that beautiful city. All who know them rejoice in their financial prosperity, and hope their useful and eventful lives are to be extended through many happy and peaceful years.

It was to visit Dr. Carr in his feebleness that the Worthy Master of Wisconsin and his brother, J. G. Carr, left their northern home for a two-months' sojourn, it being a rare thing for them to spend over a week away from home except at the session of the State or National Grange.

Bro. Nelson Carr and wife have always been exceptionally dutiful and faithful in the important official duties placed upon them by their State and subordinate Granges, and are noted among their extensive Grange acquaintances for their sincere and unflinching interest in the whole work of the Order.

About 1875, five of the brothers were Masters of subordinate Granges, Dr. E. S. Carr being Master of Temescal, Nelson C. Carr of Bennett Valley, M. C. Carr of Sanol, and the two visiting brothers Masters of Subordinate Granges in Wisconsin.

Brother Nelson C. Carr, formerly Steward of the State Grange, has promised, with his wife, if able, to accompany the Master on his journey through California. Is a noble tribute to our State from Wisconsin's Master to pledge his time and also insist on paying his own expenses in visiting and revisiting the northern counties and assisting so many of our Granges; and, in response, we have no doubt our brothers and sisters of California will turn out in full force and welcome this able and distinguished brother and friend of the farmer.

There should be no strife between our Granges in this matter, except as to which can bring the largest number of farmers, with their families, to the gatherings which are to be considered as district meetings for all Granges located within traveling distance, or in any place from which time and convenience will permit them to assemble for conference and exchange of greetings and progressive sentiments.

At our office, last week, we enjoyed all too brief a visit from three of the above-named brothers, with Sister Hannah Carr, and we believe Master Carr and any friends who may accompany him will be warmly appreciated, whithersoever they may go, among the Patrons of California.

Granges Should Turn Out.

There is little time to advertise the different points where Worthy Master Carr will speak during next week. It is, therefore, more important that such Patrons as are advised should mention the matter to fellow-Patrons and other farmers who would be interested and favorably influenced by attending. On such occasions no Grange or Granger should wait for any formal invitation.

The meeting at Sacramento might well take the shape of a State gathering of farmers, rather than a local affair merely. We hope that matters relating to legislative reform will be well discussed there and so far as time will permit at other meetings, and that all farmers may be induced to use their voice in the community and their influence with the members of the Legislature, in season to accomplish the enactment of some of the very important laws now before the Senate and Assembly. We hope especially that all Past Masters, State officers, and past officers will manifest a lively interest in attending the meetings announced, and in common with other Patrons, get warmed up to more effective work throughout the State.

ATTENDANCE at the revival meeting of Salinas Grange has caused the manager of our Grange department to be absent at the time of going to press with this issue.

BRIGHTER PROSPECTS seem to be looming up for the Grange on this coast. With kind words spoken of our enterprise by correspondents, we are altogether encouraged in our work.

Have Your Subjects Previously Announced.

It would be well if no subordinate Grange session should be closed until some subject of conference or discussion was announced for the next meeting, and one or more Patrons appointed to lead in debate.

This gives each member time to think over and perhaps read and search for fresh information that will give the subject new interest and value to all.

Such discussions bring out an exchange of ideas that are worth repeating in the local and Grange press to a circle of readers far greater than the audiences of the largest and best-attended metropolitan churches.

Prepare and say something and do something worth publishing at every meeting. Then have it written up for your local press if you have to pay for its reporting. It would prove a good investment if necessary to pay for it out of the treasury of any Grange. Your local editor would like to get it (to help sell his papers), and its publication would soon make every good and enterprising farmer in this jurisdiction respect your meetings and wish to join your Grange.

Your old grumblers would soon stop repeating their old saying, what is the use of spending time in going to the Grange? Every member will improve faster, and more of the ablest and best will get into the Legislature, where their presence would be a God send to the country.

In 1873, when the Grange took its first start on this coast, there were over 30 Farmers' Clubs in California, prosperous and increasing in membership from the influence of their discussions and previous announcement and final reporting of the same in the local papers and the RURAL PRESS. Patrons, you cannot overrate the importance of regular discussions, if you make sure to report them.

Few able speakers would like to spend their evenings, or other valuable hours, in study preparing to speak only to a dozen or two fellow-members. But for reaching out through the press and benefiting thousands of readers, laborious researches may become a pleasure.

For this line of improvement we may well give here, as suggestive of some subjects of interest to most farmers or their households, the following annual program of exercises for the first meeting in each month, submitted by the Lecturer of Temescal Grange of Oakland, Cal., following the reported successful practice of the subordinate Granges of Massachusetts and some other Eastern States in announcing in advance for the year the leading speakers and their

Subjects for Discussion.

JANUARY—The Australian system of voting and legislative reforms.

FEBRUARY—Practical education, including hints on cooking, etc.

MARCH—Hired help on the farm, indoors and out.

APRIL—Picnics—illustrated.

MAY—Camping and recreation.

JUNE—Harvesting grains, etc.

JULY—Horticulture and preserving fruits.

AUGUST—Agricultural fairs.

SEPTEMBER—How best to interest young people in Grange and farm work.

OCTOBER—Convicts; their treatment while in prison and the needed education to enable them to earn an honest living after they are released.

NOVEMBER—Pruning, grafting and seed-sowing.

DECEMBER—Literary exercises appropriate for the Grange birthday anniversary.

We shall be pleased to publish gratuitously in our columns, at first the full program for the year, and then monthly in advance the program for each month singly of all Granges in the Oregon and California jurisdictions that will adopt this plan of creating a new and lasting interest in their meetings.

Occasionally, when the subjects are suitable, the debate might be accompanied with recitations and musical exercises at an open meeting, inviting all farmers and friends of members.

It is good news to many, no doubt, that the National Grange, at its last session, ordered the issue of what is termed the "Optional Combined Ritual" for conferring the degrees for men and women together, instead of separately, thereby lessening the time and work for conferring degrees about one-half.

The use of the old or new rituals will be optional with each Grange. The new rituals will be furnished at the same cost as the old, after the slight revision ordered in the first experimental samples tested by a few of the State Grange Masters just previous to the last National Grange session has been made, which we presume will be within a month or two.

This will happily afford all growing

Granges that adopt the new ritual much more time for social and literary exercises.

We invite the suggestion of appropriate questions and comments from readers on the subject of this article.

The Water-Front Railroad Bill.

The construction of a railway along the water-front of the city of San Francisco we consider a project of immense importance to farmers, as all the produce now landed in this city is heavily taxed for drayage. The same tax also occurs on all goods sent from the city to the country, which tax has to be paid by the consumers, eventually at any rate, and usually with a heavy percentage added as profit in passing through the hands of dealers.

There is no sense in having the streets near the water-front blocked and worn out as they are most of the time from over-use, when railroad transportation is so much cheaper than horse-and-wagon transportation.

We wish farmers would wake up to this question over the whole State. What use is there in their being obliged to contribute to the support of an army of wharfingers, collectors and many others who live off their toll-gatherings from our present system of wharfage and drayage at our city-front? Every dray or hand-cart taking an agricultural implement or package of provisions on to the wharf for shipment to the interior is taxed a wharfage fee to the State, a large proportion of the same being consumed in the expense of collecting the tax in dribbles. The whole system needs overhauling. Will not some brother look into this bill and present some facts for action to the meeting of Grangers on Thursday next?

OUR LEGISLATIVE COMMITTEE.—Last week Bro. Coulter, chairman of the Legislative Committee at Sacramento, was obliged to return home temporarily, we suppose on account of private business. Bro. Thos. McConnell of the committee remains at the Capital, and we have no doubt they are both doing good service. We hope they will appear at the reception of Master Carr, and help make the Grange meeting on Thursday next one of important results.

BROTHERLY CONDUCT.—Master S. C. Carr of Wisconsin, in passing through Oregon, made a special railway trip to the station bearing the P. O. address of Worthy Master Hayes, but found that the W. M. resided some five or six miles from the depot. As it was raining hard at the time, Bro. Carr had to acknowledge himself flanked by the elements and turn his face California-ward with sincere regrets at not visiting Bro. Hayes and his farm.

ALHAMBRA GRANGE.—On Saturday, Jan. 19th, Alhambra Grange met early enough in the day to have a very enjoyable Harvest Feast and elect officers for the ensuing year. Our Worthy Master was re-elected, and almost thought he was badly used. Our meetings have been interfered with by bad roads, but we are not going to say die.—M. B. L.

MORE GRANGES.—The revival of Salinas Grange on Friday of this week is quickly to be followed by the organization of a new Grange at San Lucas, between Salinas and San Miguel, being in S. L. Obispo county, 25 petitioners having already signed for a charter. Patrons, keep the work going.

COMING ALREADY.—Since our efforts began, to secure the National Grange session here, California has already been visited by several of its members, i. e., Bro. A. Brigham, W. M. of Massachusetts State Grange; Bro. S. C. Carr, W. M. of Wisconsin State Grange; and Bro. D. Woodman of Michigan, a frequent visitor to the National Grange.

SONOMA COUNTY PATRONS ACTIVE.—At the regular meeting of Sonoma County Pomona Grange held in the city of Santa Rosa, Wednesday, Jan. 16, 1889, the following committee was appointed to make an effort to revive old Granges that have failed to keep up their organization: S. T. Coulter, Mrs. Nelson Carr, H. Gregory, L. Cnopius, E. A. Rogers.

SEVENTEEN more new Granges are reported by the National Lecturer in his last report. In New York seven were organized; Connecticut, three; Massachusetts, two; Oregon, one; New Hampshire, one; Nebraska, two.

BRO. AMOS ADAMS, former Secretary of the State Grange, was married in this city last Tuesday to Nellie G. Ailsworth.

A Tulare Matron Speaks.

EDITORS PRESS:—It is the Sabbath, and dinner not yet over, but the aroma from the duck and spinach has already claimed more territory than the kitchen, and in the interval before putting on my potatoes, etc., I want to tell you what a grand success we think this last combination of PRESS and Patron is—so many good things are in it. So many subjects of real importance opened that it is a puzzle which were the best to discuss first as being likely to bring us the earliest benefits. Under the headings of "Railroad Taxes," "Reassessment of Property," "A Cause of Regret," "The Mortgage Tax Law," "Improving Election Laws," "Bad Outlook for Labor," "Dakota and Single Tax," we find food for much thought and opportunity for a good deal of work. When we see letters from different parts of the State, so nearly alike in substance, it looks very hopeful, and as if there might yet be such a gathering of ranks and a co working among the laboring classes as has never been known before. Now that we have begun to see alike, there should come easily sympathy for and faith in each other, and a strong belief that by long and strong pulls together all those things so necessary to the advancement of the working classes can be accomplished. We can discuss these things in the Grange, ask for needed laws, and, by voting in a body, get them. What can it avail us to complain of heavy taxes and other abuses to those who are enriching themselves off of us? We must rather know what we want, declare we will have certain laws, and combine our strength in every way, till they can no longer resist us.

We find that ours is a grand Order—the one which is to bring the hearts of the people together. Through the columns of our Grange organ, new names are coming to the front and identifying themselves with us by grand, earnest words, not many "Matrons," it is true, but we know while it takes two or more to talk up these subjects, it takes only one to write, and we will venture to say that there is a "gude wife" at nearly every elbow of him who wields the pen.

As to the "Single Tax" movement, we have always wished to know more about it; so when we read D. E. W.'s article, we exclaimed that "a few letters as plain as that would make a single-tax man of us."

Our other half said: "'Single-tax woman' would be more appropriate." We just had to "snap" a little, and declare we were glad to be a woman, since it could never be thrown up to us that though we had a chance to cast a ballot according to our conscience, we still allowed the stale old tariff nonsense to pull us into line, as our brothers did ever do.

Tulare, Jan. 27th.

S. A. M.

Newcastle Grange.

MESSRS. EDITORS:—The officers of Newcastle Grange were installed Saturday, the 19th, by Bro. W. L. Overhiser, W. M. C. S. Grange, assisted by Bro. L. D. Thomas, P. M. of Roseville Grange. The day was fine, and many visitors were present, among them ten brothers and sisters from Roseville Grange. The Third and Fourth degrees were conferred on one sister by Worthy Master Overhiser, and then during the recess, while the tables were being made ready, we were favored with some fine music, both vocal and instrumental, by Rev. Mr. Wright and wife of Penryn.

After dinner (in preparing which the sisters of Newcastle Grange are never excelled) had been fully enjoyed, especially by those who had driven from 12 to 16 miles, there was an open installation. Worthy Master Overhiser surpassed even himself in making the ceremony impressive, and then, with closed doors, gave the Grange good practical advice, which we hope will impart some of his zeal to the lukewarm and make all resolve anew to work with heart and hand in a cause that is doing much to benefit the farming class.

Antelope, Jan. 21, 1889.

S. J. C.

Grange Work in the North.

BRO. B. F. Friebie, Deputy, informs us that he has installed Grange officers in his northern district as follows: Yuba City, Jan. 5th; North Butte, 12th; Wheatland, 19th. He reports North Butte Grange as on the eve of a season of unusual prosperity since its change of location from Pennington to Live Oak, Sutter county. Five or six new applications have been received, and this promises soon to be a stronger Grange than ever. He will visit North Butte Grange again on the 9th inst.

SAN JOSE GRANGE met January 19th, with O. F. Alley in the chair. Bro. Hiram Pomeroy read a succinct and interesting account of his recent visit East after an absence of 35 years. He graphically described the journey and his visit to the Mormon Tabernacle at Salt Lake City and the Sunday services therein. H. A. Brainard, the secretary, read a paper on co-operation, advocating its adoption and the future spread of the principle. Mr. Holland called attention to a proposition to be submitted to the present Legislature, to repeal the law which now provides for a tax on mortgages, and stated that the members of the Grange should exert all their influence to prevent the passage of such a law. It was to the interest of Grangers to let the law remain as it is at present.

New Water Laws.

A new law of a radical character has been introduced into the Legislature providing that the State shall make improvements and distribute the waters of the State at fixed rates instead of having them dealt out by corporations. This is a matter worthy of discussion, as new light may thereby be thrown on the subject, whether the intent of the bill be political or otherwise.

This water question is immensely important to the people of California—perhaps more so than to those of any other State in the Union. The Wright bill, so called, should probably be maintained for the present, but we have no doubt it can and should be much improved. If it is not practicable to amend it to advantage at this session, we would ask if there should not be a commission appointed to examine, consider and report as to what action it would be best for the succeeding Legislature to take. We are inclined to think that before wholly satisfactory provisions can be made for disposing of the waters in this State, constitutional amendments will be needed.

There are men of honesty and candid minds who have studied this matter in its different bearings, almost from sheer necessity, for many years. We would thank such men to write out their views candidly on the water question for the benefit of others who are not so well informed. In fact, the great difficulty in handling the water question arises more from the ignorance of the great majority than from lack of intelligence and good judgment on the part of the few who are most interested in and best acquainted with the subject.

Railroads and Mails.

In answer to a request of the House Committee on Postoffices and Postroads, the Postmaster-General gives his opinion on House bill 12,109, which requires railroad companies to carry the mails at rates of compensation fixed by law. He points out the present condition of the law, under which any railroad company may refuse to take the mails, and the department can secure their carriage by contract only. He suggests that a state of things under which service may be stopped at the caprice of a carrier, constitutes a reproach to a Government established to promote the public welfare.

The committee unanimously voted to report the bill. It provides that if any railroad company shall refuse or neglect to convey any mails upon any train upon which the Postmaster-General may require such service, or willfully refuse to obey any law respecting the transportation of the mails, it shall be liable to a penalty not exceeding \$1000 for each day in which such refusal or neglect shall be persisted in.

A Legislature of Appropriations.

If one-tenth of the appropriation schemes, big and little, that have been projected before the present Legislature should meet with success, the current session could fitly be called the Legislature of Appropriations. Look over the list of bills for extraordinary appropriations; take out your pencil and figure up the amount. We are sure it would astonish almost any quiet-going citizen who has left a spark of patriotism or concern for the welfare of coming generations.

Grange Election.

ALHAMBRA.—Dr. L. Strentzel, M.; E. B. Smith, O.; W. A. Fraser, L.; E. B. Barber, S.; Jas. Kelley, A. S.; L. D. Messer, C.; H. Raap, T.; Mrs. M. B. Lander, Sec.; J. Cornwall, Jr., G. K.; Mrs. L. Strentzel, Ceres; Mrs. H. Bent, P.; Mrs. Lillian Tompkins, F.; Mrs. Alex. Boss, L. A. S.; M. R. Barber, Trustee; Miss Mollie Kelley, Org't.

THE INTERSTATE COMMERCE COMMISSION recommends that the Interstate Commerce Act be so amended as, 1st, to define what shall be considered excursion and commutation tickets; 2d, to prohibit all payment of commissions on sale of tickets, and all sale of tickets for interstate business except by regular agents of carriers; 3d, to require carriers to provide for the speedy and convenient redemption of unused tickets or coupons. Former recommendations as to joint tariffs and notices of reduction of rates are renewed.

SAN LUCAS GRANGE, No. 284, will be the title of the first new Grange lately organized in this State. It is located in the southern part of Monterey county. Through the active efforts of Bro. F. B. Logan, correspondent of the RURAL PRESS, 25 names have been signed to the petition, and Bro. A. P. Roache has been applied to to organize the Grange at San Lucas on Thursday afternoon.

A BILL providing for the appointment of a commission and appropriating money for the reception of the National Grange was introduced in the State Senate by Langford on the 29th ultimo.

In sending report of the Roseville Grange meeting, Sister Cross kindly mentions the RURAL PRESS as coming to her Saturday with a very pleasant and attractive face.

P. of H. news continued opposite page 108.



The Cherubs.

Long years ago, across the sea,
Two lovely baby boys
Filled a small home with merry glee,
With laughter, fun and noise.

Their young Italian mother sat
Beside her door and spun,
While by her side her lovely twins
Rolled laughing in the sun.

Till, tired at last, they'd leave their play
And by her side recline,
While she of little Jesus told,
The babe of Palestine.

One day a handsome stranger passed
The humble cottage door,
As listening at their mother's knee
They heard the tale once more.

Not laughing now, but rapt and still,
With calm, uplifted eyes,
Hearing the oft-repeated tale
With ever fresh surprise.

The stranger heard the story too,
And to the mother said:
"And will you bring your boys to see
A picture I have made—"

"A picture of the Jesus-child
Held on his mother's arm?
If you will bring your lovely twins,
They shall be safe from harm."

And then each day he painted them
As first he saw them stand—
One chin upon the folded arms,
One resting on the hand;

And made of each an angel-child
With wings like little bird;
And placed them at the feet of him
Whose story they had heard.

And still, though centuries have passed,
The glorious picture stands
Just as it left, so long ago,
The painter Raphael's hands.

And still the fair Italian twins
With earnest eyes you see
Just as they stood that summer's day
Beside their mother's knee. —Ex.

Good-Bye, Old Cow.

Good-bye, old cow, you've got to go,
Of course 'tis hard to tell you so,
For your forefathers and my own
For ages this old farm have known.

You're lank and flabby—to be brief,
You're fit for neither milk nor beef;
You yield but little at your best,
And then go dry six months to rest.

Your horns are long, your bones the same,
Too little meat for such a frame,
With stomach large and udders small,
The different parts don't match at all.

I looked at you with sad regret
And mourned to think we ever met,
For every wrinkle in your horn
Proclaims of wasted hay and corn.

My neighbor farmers live with ease,
While I wear patches on my knees,
The reason, simple, plain and true,
They've kept good stock, while I kept you.

Such common scrubs no more I'll feed,
Henceforth I'll try a better breed;
I plainly see my error now—
You've got to go; good-bye, old cow.

—Mark Lane Express

Home Decoration.

A Plea for the Window Garden.

Written for the RURAL PRESS by MRS. MARY E. WOODARD.

That the cheerful influence of a window garden is duly appreciated by people in general I am fully persuaded, for I have not an article of furniture, a book or a picture in my rooms which attracts the attention of and seems to give the amount of real pleasure to my friends that my plants do. But among the many who admire, comparatively very few make any similar attempt at window gardening in their own homes. The idea that house-plants are a source of great care is presumably the real reason; but it frequently occurs to me that if even a very few minutes now and then were taken from the hours spent in other modes of household decoration now so common among us, and devoted to caring for a little of nature's own decoration, the effect would be often more restful and pleasing, and the expense and labor inestimably less. This is undeniably an era of home adornment—not even the whisk-broom holder or the bag for soiled clothing escapes in this universal enthusiasm for beautifying. And while I in no way underrate the real value of the motives which actuate this reign of decoration which has swept over the land, I would

suggest one or two methods whereby the same results might be achieved in a way more satisfactory to the ordinary housekeeper. For instance, the young wife and housekeeper just launching out in life with limited means but a nature keenly alive to the effect and influence of a beautiful home, beholds with a growing discontent that her family sitting-room has a bare and unattractive appearance, after having spent a few minutes of an afternoon in the home of some friend whose means and leisure far exceed her own. To be sure, there is a bright new carpet on the floor, and a pretty lounge, and a shining parlor stove, and a few modest pictures, and a little table with a few books; but yet—the young housewife pauses and looks around with a sigh. The room lacks something. There is scarcely an article in it that is not there for some real use. There are no bright spots here and there to catch the eye and hold it, pleasing the intellect by its general tone and effect, whether or no the observer is fully aware of the exact reason. There is nothing to call forth that delightful volley of praise and questions from the intimate lady caller and by the innocent discussion thereby following make an otherwise dry call a cheerful one. In a word, her home lacks decoration. "It doesn't look homelike," she concludes. "I must have some pretty things." But our young housekeeper belongs to that large and most excellent class of people who carry on the world's real work. Her girlhood has been filled with a labor which admitted of no time or money to be spent on education in the fine arts. "I will find no trouble in buying a few little articles," she thinks, but is disappointed when prices of such as she desires are made known to her. That table scarf of old gold hanging in a shop window with roses and butterflies and lilies elegantly embroidered thereon, seems to her very costly at \$5.00, and all other such articles proportionately so. "I cannot afford them," she says finally, "but what can I make?" "Oh! it is not at all hard to learn Kensington and Lustra painting," say certain of her friends, sympathizing with her efforts to beautify her home, "and one can make such lovely tidies and other things by means of it," and straightway she begins. Perhaps her outfit costs a little more than she had anticipated, but she consoles herself that the expense is well-nigh all embraced therein, and by and by little articles of velvet and satin and plush begin to appear about her rooms, some of them pretty, to be sure, but generally (I speak from the standpoint of an ignorant critic) of questionable beauty or utility; for after all the real artists are few among us, and paint is one thing that refuses to respond satisfactorily to the mediocre touch.

Our young housekeeper with the cares of a growing household has no time for a thorough course of lessons in the art, and often beholds with misgiving the result of her untutored labor; for painting is labor, to which fact many aching eyes and fingers and backs can testify. She grows a little nervous now when ladies call who have means and leisure to make a success of this branch of art, and is amazed at the sum total (for she is a careful housekeeper and keeps strict account of the cents as well as dollars) to which the cost of her materials has amounted, for there are no end of ribbon bows and satin linings and pompons and crescents needed for the "finishing-up" process, which seem so small in themselves that one is often unconscious of their possible amount in the aggregate. "I have spent double the amount which it would have taken to have purchased outright a few articles of real and lasting beauty," she finally concludes in dismay, and her case is not without parallel.

However, as I said in the beginning, this is a plea for the window-garden. Nearly every sitting-room contains at least one sunny window; a plain shelf or an ornamental bracket, or a small flower-stand can be placed before it at trifling expense. Plain terra-cotta pots cost but a few cents each, and with a very little more expended at any one of the excellent floral nurseries so numerous in the State and country the materials may be had at and the foundation laid for an ornament which is not there at the expense of aching head or tired eyes—an ornament which will give an air of bright homelike refinement to the most plainly furnished room, and one which is at no time a source of mortification, no matter how fastidious may be the observer, for Dame Nature does well whatever she does at all. There are no violated laws in her grouping of colors, no stiff lines and angles which "would be improved by practice," for she solved all those riddles ages ago and stands ready to-day to yield the benefit of all her wonderful stores of beauty knowledge to whoever will invite her by a little proper attention to her very simple wants. The time this requires is so slight as not to be missed even by a busy wife and mother, and is a relief rather than a trial to nerves already strained by cares of the work-a-day world. And not to the home alone is the wholesome influence of a healthy, well-selected window-garden confined. The handful of bright geranium leaves and blossoms sent in winter to some invalid friend is prized beyond the comprehension of the well and strong, and the sprays of delicate cypress and wax-like tube-roses placed tenderly in the hands of the little dead baby at a time when flowers are scarce are fondly remembered for years by the sorrowing mother. But in plants for house culture, more than for outdoor growth, is discretion needed in the selection. So far as my experience goes, I give the geranium preference above all others. They come

easily from slips, grow with little attention if given plenty of sunlight and water, are cleanly in habit, and if slipped at different times can be made to bloom at any time of the year with equal brilliancy. Scarcely any other plant embraces such an endless variety of shapes and colors, both as to leaves and blossoms, so that a window would seem to lack nothing which contained nothing else; and not least in their favor is the fact that insects do not affect them as readily as some other plants. Always bright and of easy culture, also are coleus and acynanthes, and can be had in unlimited shades and shapes. Silver-edged periwinkle is also a hardy plant, and is always elegant, either trailing from its basket or cut for use in bouquets. Of equal beauty is the "tradiscantia multicolor," or variegated Wandering Jew, with its leaves of green and pink and white bronze stripes, which asks little save plenty of water to insure its successful growth.

The value of the hanging-basket must not be disregarded in the matter of window decoration, and of this it can truly be said that expense is not a factor, although the market abounds in beautiful ones; for the real object of a hanging-basket is to allow drooping foliage to follow its natural inclination, hence the more thrifty the growth of the plant the more obscured is the basket. In my own window are three sorts—prettily painted terra-cotta ones, wire ones, and lastly, one of my own make, probably best termed "rustic." I beheld such a one while on a tour through the beautiful conservatories of Golden Gate park a few months ago, and, interested as I was in flower-gazing, its simplicity and beauty caused me to stop and ponder on its construction. It was composed of little strips of wood about a foot long and probably a square inch in thickness, fastened together "log-cabin fashion" by means of four wires strung through little holes made an inch or so from the ends of the sticks, thus allowing them to project past each other at the corners in truly rustic style; a filling of moss completed the architectural part, and nature's greenery did the rest.

I followed this pattern one day, and have nothing else in which the flowers seem to thrive as well as in that. They twist themselves around the long wires by which it is suspended, and clamber down and in and out among the many little wooden ends at the corners, clinging to the wood as they will to nothing else, the colors contrasting prettily with the green of the moss.

I find it a pretty fashion to place in each basket five or six plants, each of different color and habit; some erect, some climbing, some trailing. I have always found them to thrive well, and the effect is decidedly novel and picturesque. The time between this and early spring is the best to compare catalogues and prices at leisure. And the fresh new catalogues are now beginning to come to hand, some of them indeed beautiful; and your name on a postal stating that you desire one, and sent to any nurseryman advertising in the RURAL PRESS, will bring you one free of cost.

So successful has become the "mailing" system of sending small plants, and at so little cost can they be procured in this way, that expense cannot be urged as a reason why rare and beautiful blossoms should not literally be strewn in all pathways.

Tulare, Cal.

An Ungainly Posture.

EDITORS PRESS:—I have often thought I would write about bad habits children are allowed to get into, but deferred from time to time; but the article in a late RURAL began the work, so I take time to mention one, to me, very bad habit that children have, namely, that of standing with one foot upon the other. It is impossible to break them of it when they are allowed to do it at school. How a teacher can endure to see it passes my comprehension. It is so ungraceful, and the habit, unless checked, is continued all through life. I know several men who stand that way, and of all the ungainly positions the human body can get into, that is about the worst.

When they want to rest one foot, it is much easier to pass the foot quite over the other and rest it on the tip of the toe. It looks graceful, and is certainly more restful. I think teachers should train the body as well as the mind. Slouching, ungainly habits may not mark the mind. But when we see a boy or girl, man or woman, with awkward ways, we always feel that there is, or was, a sorrow loose somewhere.

Our teachers have taken one step toward the good health of their scholars by the calisthenic exercises during the session for the purpose of straightening the shoulders, and if they would take still another, and insist on a good position when standing, I for one would be much more pleased than I am, when, after hearing a child go successfully through a difficult examination, he or she drops into the horrid position so often taken by the youngsters. MRS. J. HILTON.

Los Alamos, Jan. 7, '89.

CHICKEN BITES.—Little Johnny (looking curiously at the visitor)—Where did the chicken bite you, Mr. Billus? I don't see any of the marks. Visitor—Why, Johnny, I haven't been bitten by any chicken. Johnny—Mamma, didn't you tell papa Mr. Billus was dreadfully henpecked? Why, mamma, how funny you look. Your face is all red!—Exch.

"Twa Dogs."

Curious Canine Characteristics.

[Written for the RURAL PRESS by J. W. GALLY.]

Let me now tell you some circumstances about dogs. Some time or other, before the great war, ex-Judge David H. Terry, so I have been told, went to Europe and from the Hospice St. Bernard in the Alps, brought away to California a pair, male and female, of the genuine St. Bernard breed of dogs. A son of those dogs was brought to Lone, Nye county, Nevada, in which county a fine specimen of that dog's heirs interbred with the coyote, and yet, curious to say, one of the heirs of that interbreeding had all the size, bulk and appearance of his St. Bernard ancestors—still he was about a quarter-breed coyote. This dog was removed to Belmont, the present county town of Nye county, and he was the property of a miner, but he (the dog) boarded with a saloon-keeper along about the years 1867-68. The mines at Belmont are mostly situated out of town, over a low hill, about a mile away. From these mines to this town, in the heats of summer and the storms of winter in the very changeable climate of that land, came the hardy silver miners, and they, or some of them, at times would jollify in the saloons and not return very early to their several mining cabins where there was no woman, no wife, no children, and, occasionally, one would start late for home in a condition not at all fit to be a prominent member of the W. C. T. Union. Well, the inebriated miner, we will say, starts for home on a cold night, and now comes the dog aforesaid and placing himself gravely beside the staggering miner, he never leaves him until he leaves him at his home; if the inebriate falls the dog lies down beside him, and no one, not known to that dog as the miner's friend, can lay hands upon the prostrate man without a compromise with his canine guardian. This dog seldom barked, but he had a very big growl. He did not seem to have any particular favorite among his human pets; providing the man was a patron of the saloon where he (the dog) boarded and was, also, so "full" as to be uncertain of the steadiness of his steps. I am sorry that after so many years I cannot now recall the name of this dog, but he was a well-known character back in the late sixties. He guarded many a miner to his home, and the most singular thing about him was that he could not very often be deceived by a simulated drunk. "The boys" often tried to fool him, but in those cases he simply looked serious out of his solemn eyes and slowly wagged his tail.

Sam K., who owned and drove a big ox freight team in 1867, had a black "sheep-dog" named "Carlo," which followed Sam and his team from town to town. Sam loved "Carlo" and under certain circumstances "Carlo" liked Sam, and as there are no flies in Nevada, and as Sam, like all men there in his line of business, camped at night with and slept beside his wagon on the dry ground of that country, the dog lay beside him outside the blankets and kept very faithful guard over his sleeping master—generally, but not always.

On arriving in a mining camp, as it was Sam's habit to do his own cooking, one of his first moves was to go to the butcher's shop and buy a beefsteak or some chops for himself and a bone of meat for "Carlo"—the dog following him at the time—and Sam might also buy a drink of whisky, for immediate consumption, and then, with his dog and his meat, go back to his camp and cook supper. After supper was cooked and eaten our bovine persuader might straighten up his camp, and then, with his dog, walk back into town. If he remained to a late hour up in town and found some old, or even new friends, he was liable to imbibe "his keg full," and "Carlo" would follow him faithfully from one saloon to another; but just the moment that "Carlo" saw his master becoming noisy or showing the effect of his liquor—and it did not take him long to see it—right then and there he would leave Sam and no amount of coaxing could induce him to remain. He would go straight down to camp looking as ashamed as any dog can look—and dogs can look ashamed—and there he would lie down; but whether he had tears in his eyes I never knew, shouldn't wonder, though.

These are facts which I state about these "twa dogs," and I think if I was over in Nevada even now I could prove them.

Watsonville, Jan. 23, 1889.

The Billy Goat.

There is a good deal of dynamite in a billy goat. It won't do to drop on to one suddenly unless you want to be lifted. Any man who runs against a goat without telegraphing him beforehand acts as if his business education had been neglected. For a goat is the embodiment of a terrific energy when aroused, and nothing starts him quicker than a sudden appearance. Any man who approaches him without circumspection is liable to lose some part of himself. More than one man has lost his balance and his self esteem by such carelessness. Both these essentials of standing and character are apt to remain absent during the entire interview.

A goat is endowed with great quickness of apprehension, and he acts on his impulses. When a goat of the masculine gender stands

and gazes at you with a look of curious deliberation in his eyes you will, if you are a rational being, promptly pick the nearest tree and get behind it. This is the only wise course to adopt. Nor should you be slow in doing this. It is not safe to take any chances with a billy goat if he is within 50 feet of you and has in his own mind decided to act. You cannot rely on his remaining where he is any considerable length of time. He is apt to move suddenly, and when he moves he always moves in a straight line and with his objective point clearly in view.

To know a goat thoroughly, gentlemen, I am convinced that a man should begin his investigations in childhood. The knowledge needed is not acquired readily by an adult. A man can pilot a steamboat better than a boy can, but to steer a goat successfully into a paddock without any back-action of the paddler is a feat at which a boy will beat his father every time. The innocent sprightliness of early life is an essential element of success in such an undertaking. A deacon of mature age and dignity of character might do it, but he would never be fit to hold the office after he had finished the job. His record would be broken, as it were. What he had gained in fluency of expression he would have lost in resignation of spirit and the sweet placidness of his vocabulary. A deacon should always leave the management of a billy goat to his hired boy, and keep out of hearing too when the boy and the goat are in close communication. Any material departure from this rule will always result in unhappiness. The manners of the goat will be spoiled, and the deacon—if the matter be fully reported—will surely lose his office.

A goat is like any other highly organized creation. He learns evil fast and forgets it slowly. He is a creature of vanity and relishes success. After he has learned a man's anatomy by experiment the knowledge is fixed in his mind forever. Time may obliterate the impression he has made on you, but it never obliterates the impression you have made on him. Years may pass; your hairs be whiter and his coarser, but if he ever gets a chance to hit you again, your years and venerable appearance will not save you. The old reprobate will hit you in the same spot. I have never been able to satisfactorily explain this to my own mind, but the fact remains. I have seen it demonstrated.—W. H. H. Murray's "Daylight Land."

Why Pianos Get Out of Tune - A Growing Plant a Remedy.

"This is the time of year when we are driven nearly crazy with work," said a tired-looking piano-tuner to a New York Sun reporter. "Everybody wants his piano tuned for Christmas, and most of them forget about it till the last moment. And besides being the busiest season, we have been having the most trying weather. These cold, dry days throw pianos out of tune every time, and besides that the sounding-boards are beginning to split. It always surprises me what poor care most people take of their pianos. Let a man buy an expensive watch, and he'll treat it as though it were a live thing, but people don't seem to realize what a delicate piece of mechanism a good piano is. Pianos are not affected so much by heat or cold as they are by dryness and dampness. Of course, if you stick one end of a piano up against a stove, or a heater, or a register, and let the other end come near a cold, leaky window, it'll raise Ned with it, but most people are on to that. The trouble is, the piano is too dry."

"You know the sounding-board—the life of a piano—is forced into the case when it's made so tightly that it bulges up in the center, or has a 'belly,' as we call it, on the same principle as a violin. The wood is supposed to be as dry as possible, but, of course, it contains some moisture, and gathers a lot more on damp days and in handling. Now, when you put a piano in an overheated, dry room, all this moisture is dried out, and the board loses its 'belly,' and gets flabby, and finally cracks. Even if it doesn't crack, the tone loses its resonance and grows thin and tinny, and the felt cloth and leather used in the action dry up, and the whole machine rattles, and everybody kicks."

"How can you prevent it? Easily enough. Keep a growing plant in the room, and so long as your plant thrives your piano ought to, or else there's something wrong with it. Just try it, and see how much more water you'll have to pour in the flower-pot in the room where your piano is than in any other room. Some people keep a huge vase or urn with a sopping-wet sponge in it near or under the piano, and keep it moistened, just as a cigar dealer keeps his stock. They keep this up all the time the fires are on."

BIRDS AS VENTRILOQUISTS.—At a recent meeting of the American Ornithologists' Union, Mr. Ernest E. Thompson of Canada said that some birds, especially sparrows, have ventriloquial powers. Birds, when surprised in the act of singing, will be silent for a moment, and then give forth a faint song that seems to come from a distance, though the singer be not farther than ten feet away. Thrushes and robins, the lecturer said, also have this power.

INDIANS.—It is a curious fact that there are as many real Indians in New York State as in Minnesota—about 500.

YOUNG HOLKS' COLUMN.

Lessons in Trees.

[Written for the RURAL PRESS by MARTHA T. TYLER.]

How do trees grow? The oak, for instance, with its thick, knotted trunk, and multitudinous branches, how is it developed from the insignificant acorn? The seed is planted by accident or design in the cool, damp earth, where, fattened by the soil, and nourished by the moisture, the tiny germ containing the principle of life begins to push upward, protected by two green sheaths. The leaves are there hidden between the cotyledons, as the outer parts are called, but in a minute form folded upon one another, like the wings of a butterfly in the chrysalis. These tiny leaves unroll to the light and air as the plant mounts upward, but there are some slender fibers attached to the germ that from the first take an opposite direction; they are the roots of the future tree, and their function is to suck up food from the soil for the sustenance of the oak. The root is really of the same nature as the stem and branches, but is subject to different conditions. Some one tried the experiment of planting an oak with its branches in the ground and its roots in the air, whereupon the branches became roots and the roots were, in time, transformed to branches. An example of this mode of growth may be seen in the banyan tree of India, the branches of which are furnished with rootlets that lengthen little by little, until the ground is reached, when they fasten themselves in the soil, and each root becomes in itself the stem of a tree and acts like a prop to the parent plant.

The most important element in the history of a tree is the circulation of the sap. The skin of the bark is a thin, paper-like substance composed of cells between which are little pores or mouths, which drink in the air and allow it to circulate all over the tree. Beneath this outer covering is found a layer of green cellular tissue which holds the sap. This flows in channels arranged for it in the most wonderful manner. It glides upward from cell to cell, passing through all the branches to the tips of the leaves, where it becomes purified. The refuse part of the sap is discarded in the shape of wax and various other substances, and the surplus moisture which it contains is thrown off through the pores of the leaves. Then the refined fluid descends, carrying with it those qualities essential to the health and life of the tree.

Passing now to the third important point in the growth of a tree we come to the *liber* or inner bark, which is, in fact, the actual seat of vegetation. If a tree be wounded and the wound screened from the air, after a little a viscid substance will exude and spread itself over the surface of the wound. This will gradually harden, and become green and full of cells like the bark—become, in short, fresh *liber*, the sticky substance being no more nor less than the descending sap. Every year the rich sap forms a layer on the inner surface of the fibrous *liber* (just as it will form a layer on the surface of the wound) which becomes wood in an immature state, and is called *alburnum*; in a year it will have hardened into true wood, and new *alburnum* will have been formed, which in turn hardens, thus increasing the bulk of the tree from year to year.

The heart of the tree contains the pith, and from this, little ray-like veins spread to the outer bark. These veins make the "grain" of the wood and add greatly to its beauty when the timber is used for building and other purposes.

The noblest of the oak tribe is the British oak. For durability the wood cannot be surpassed, and long ago, when it was plentiful in England, it was used almost entirely in carpenter's work.

Windsor Forest abounds in ancient oaks. One of them is known to be 1000 years old. The trunk is hollow, and 20 persons have been comfortably seated in it. Herne's oak, which was blown down some time ago, was an object of superstition for centuries prior to its overthrow.

Herne, we are told, was keeper of Windsor Forest during the reign of Elizabeth. Having violated the forest laws by hunting there without permission, and fearing punishment, he haunted himself on this tree, and the spot was believed to be haunted. Shakespeare alludes to the legend in his "Merry Wives of Windsor": "There is an old tale goes that Herne the hunter, Some time a keeper here in Windsor Forest, Doth all the winter-time, at still midnight, Walk round about an oak."

Then there is "Queen Elizabeth's oak," near Hatfield House, where, when a princess, she was confined as prisoner of State, being allowed, however, to wander at pleasure through the grounds. One morning a messenger arrived at the house, and having sought her there in vain, looked for her in the park, where he discovered her sitting beneath a favorite tree, and there saluted her as Queen of England.

I love all trees excepting only the gloomy eucalyptus. This is an ascetic, incommunicative spirit, and I have observed that even the birds are shy of it, but the kindly oak, the hospitable chestnut, the romantic and meditative willow, the loquacious poplar, I love each one of them, and more than all the sympathetic pine. The last is pre-eminently the friend of

man. Its uses are manifold. The Scotch fir is a blessing to the country where it grows. The poor man's hat is lighted by torches made of the branches, which, owing to the resinous nature of the wood, burn most brilliantly. In the barren parts of Sweden and Lapland the peasants select the oldest and least resinous of the branches, take out the inner bark, which they grind and mix with their scanty supply of meal and work the whole into dough, of which cakes are then made, called *bark-bread*.

In the spring, when the sap is in motion, a notch is cut in the tree and a channel scooped above the notch. The resinous juice runs down the channel into the notch, is dipped out with a ladle and strained, when it becomes common turpentine. From the pine also we get tar. This is done by stripping the tree of its bark, thus checking the flow of the sap and consequently the growth of the tree. The impeded sap changes to a thick black gum, known as tar, and when, after a few years, the tree is cut down, it is found to be full of this useful substance. The pine furnishes masts for our vessels, and all the ropes and cables of a ship are dipped in boiling tar to give them the required durability.

Coal, which is so essential to our comfort, is the remains of mighty pine forests that existed long before the memory of man, and its inflammable nature is due to the resinous properties of the pine.

With the pines, the firs and the larches are included the cedars, at the head of which stands the cedar of Lebanon, once like Solomon in all his glory, the pride and ornament of Palestine, but now almost a thing of the past. Seven only of the ancient trees remain, and they all show signs of desolation and decay. They are colossal in size, however, and have beautiful fan-like branches. They stand in a little valley on the mountain-side, and around them in a semi-circle are the old rocks of Lebanon covered with perpetual snow.

GOOD HEALTH.

Health of the State.

We collect from the monthly report of the State Board of Health for December the following information in regard to the general health of the State:

Mortality reports received from 75 cities and towns within the State give collectively the number of decedents as 917, in an estimated population of 700,600 exclusive of those towns reporting no deaths, having a population of 10,500, so that actually in a population of 719,100 the mortality gives the exceedingly low percentage of 1.27 per 1000 for the month of December, when the death rate is expectedly increased everywhere within the temperate zone. If our mortality reports were reported as they should be, from every village and town in the State, we have no doubt the same condition of diminished mortality would be found. We trust the Legislature will see the importance of so amending our health laws that reliable statistics may be obtained, as by them we can demonstrate clearly the advantages of California as a health resort.

Reports received from 65 towns indicate, with few exceptions, that the amount of sickness is very limited, and what does prevail is of a mild and not serious character. This may be owing to the favorable temperature throughout the month, which was not characterized by any sudden changes.

Diarrhea and dysentery have subsided almost everywhere. Cholera infantum is almost entirely absent from the State, or so seldom met with that it is no longer reported. Measles is reported in several places, but the number of cases is very limited, and it is no longer epidemic.

Scarlet fever is more widely diffused, but in a very mild form.

Diphtheria occupies quite an extensive range. Dr. H. N. Miller, writing from Colfax, says that 13 cases came under his observation during the month, but the type is mild. We have yet to learn upon what factor or factors the type of an epidemic depends, and, again, to what we owe the appearance of certain diseases in regular cycles, appearing and disappearing with a certain regularity that has so far baffled the sanitarian.

Croup accompanies diphtheria with unfailing regularity, almost compelling us to believe in the identity of the diseases.

Whooping-cough was in North Bloomfield, Lodi, Angels Camp, Anderson, Downey, Placerville and San Francisco.

Erysipelas was observed in Red Bluff, Fresno, College City, Cedarville, Newcastle, Downeyville, Sierra City, Lincoln, Truckee and Lockeford.

Typhoid fever is reported in quite a number of localities. The range over which typhoid fever prevails would indicate that sanitary defects exist in these places that ought to be remedied. Typhoid fever is, of all diseases, the most preventable, and if the Sanitary Inspector, which the State hopes to appoint according to law, does nothing but instruct the people how to keep clean and prevent the development of typhoid, he will have earned his salary and saved the State many thousands of dollars.

Remittent fever is mentioned as prevailing

in many places, but in type is not severe and mortality very limited.

Pneumonia still prevails to a considerable extent, but is not nearly so prevalent as it was in November.

THE CAUSES OF BOILS.—A boil may attack any portion of the body, but it oftener appears on the neck than on any other part, and no spot seems to the patient so undesirable to have it as the very one upon which it is located. The causes of these painful visitations are not well understood. They occur not only in the debilitated, but in those who are seemingly in ordinary health. Some writers assume that they are the result of a low and depraved state of the system induced by general debility, excessive fatigue, nervous depression, improper food and exercise, irregularity of the functions of the body, and the like. Not unfrequently they appear on athletes while training. There are certain diseases—among them diabetes—during the course of which boils, singly or in crops, are quite apt to occur. They are also noted in skin affections, which are characterized by severe itching; the constant irritation of the skin seems to invite their appearance. Certain medicines when used externally are capable of producing an eruption of boils. One writer says: "To judge from the previous observations, I think I may say that individuals who have a rough skin, thick, dark hair, and a vigorous growth of hair, are more predisposed to the formation of furuncles."—*Boston Journal of Health*.

TOBACCO SMOKE.—In the country districts of England, 40 or 50 years ago, it was universally believed that tobacco smoke was a prophylactic against fever. Nurses smoked at the bedside of fever patients, and friends were called in to take a hygienic pipe in the sick-room. The superstition has been dissipated by the known results of careful scientific investigation. It has, however, been revived in Florida by the reported fact that not a single cigar-maker has been attacked by yellow fever throughout the course of the epidemic, which has ravaged Jacksonville so terribly. The physicians there, it is said, recommend tobacco smoking as preventive, even women being advised to take an occasional cigarette as a precautionary measure. This will prove a pleasant doctrine to smokers, who will argue that the greater includes the less, and if tobacco will keep away the infection of yellow fever, it will serve as a preventive to other minor maladies as well. So it will. 'Tis fear kills more than infection, and in a believer's mouth a pipe may be an antidote to fear.

DOMESTIC ECONOMY.

SPONGE CAKE.—One dozen eggs with the whites and yolks beaten separately, one pint of sugar, one pint of flour, and the juice of two lemons. Have a moderate oven.

RAISIN PUDDING.—One-half cup of molasses, one cup of milk, one cup of raisins, one-half cup of butter, two eggs, two cups flour, two teaspoonsful of baking powder. Steam one hour.

MOLASSES COOKIES.—Two cups of molasses, one cup each of sugar and shortening, eight tablespoonsful of hot water, one tablespoonful each of vinegar, soda and ginger, and flour to roll.

CORN PONE.—Two quarts of sweet milk, eight teacupfuls of cornmeal, four teacupfuls of flour, one teacupful of salt and one teacupful of molasses; mix and bake three hours in a slow oven.

RYE FRITTERS.—One and one-half cups flour, one egg, one-half cup rye meal, one tablespoon sugar, a little salt, two teaspoons cream tartar; mix with milk and drop from a spoon into hot lard.

GRAHAM CAKE.—One cup of brown sugar, one cup of sour cream, two eggs, two cups of graham flour, one teacupful of soda, a little salt and cinnamon if liked. If the cream is not sour, use less soda. Do not stir too stiff.

CORNSTARCH CAKE.—Two cups of pulverized sugar, three-fourths of a cup of butter, stir to a cream; one cup of milk, the whites of seven eggs beaten to a stiff froth, two cups of flour, one of cornstarch and two teacupfuls of baking powder. Flavor with lemon or orange.

FLANNEL CAKES.—Out dry, light bread in pieces, put over it enough sour milk to cover it, let it stand over night; in the morning wash it well, and to every quart of bread add one egg well beaten, a teacupful of soda, a pinch of salt and flour to make a moderately thin batter; bake on a griddle.

LAYER CAKE.—One cupful of sugar, one-half cupful of butter, three eggs, one-half cupful of sweet milk, two cupfuls of flour, one-half teacupful of good baking powder or a teacupful of soda, and one-half teacupful of cream of tartar. Beat the sugar and butter to a cream. Do not melt the butter, but warm slightly if too hard. Stir the milk well into this, and then add flour into which the baking powder has been well sifted. Stir thoroughly. Then add the eggs, one at a time, taking care to stir each one in well before adding the next. Bake at once. This will make four layers. The lightness of a cake depends far more upon the way it is put together than the mixture itself. If the directions be carefully followed, success is insured.



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See Advertising Columns.

The Week.

The most stirring distant topic seems to be whether we shall declare war with the German Empire because some of her old war-tubs are threatening the people of Samoa. According to report, President Cleveland's Cabinet officers are fighting among themselves so as to get their mad up in case they should have to pitch into Germany, and incoming President Harrison is summoning the old legal warriors of the Great West around him, so they will be ready if the row hangs over till the fifth of March. But really we hardly think it would be polite to declare war with Germany now; she has recently had two bereavements in her family, and we understand that Bismarck isn't right well at present. Perhaps if Mr. Cleveland would write William a postal-card suggesting that if he wants to fight to take one of his size and not be pestering those poor Samoans, it would serve the purpose and it will not be necessary for the California Legislature to tell the world that San Francisco is the easiest place to burn up with hot shells in existence.

The Legislature is still at work trying to spend the money which the assessor will order

on the 1st of March. We are glad to see that Governor Waterman doesn't propose to honor all the drafts which may be made on the Treasury.

The weather is fine for the season, but rain will very soon be desirable. The rainfall figures so far are respectable, but the ground was so dry that it will take a good deal of rain to wet it down well.

California Forestry.

The California State Board of Forestry has made another notable contribution to the popularization of tree lore and to the cause of preserving and extending our forest area in their Second Biennial Report, which has just been issued from the office of the State Printer.

It is a volume of 182 pages and contains much matter of interest regarding the work of the Board and also advice of value about tree-culture. The present Commissioners are Abbot Kinney of San Gabriel, John D. Spreckels of this city, and Walker S. Moore of Los Angeles. The secretary is Sands W. Forman.

In our reports of the meetings of the Board during the past two years, we have kept our readers generally informed on the establishment of Forestry Stations, the propagation and distributing of seedlings, etc. Concerning the purposes of the Board with reference to these stations, the report says:

These stations are at Santa Monica, Chico, Merced, Hesperia and San Jacinto, and land has been offered for two others. The plan is to plant these stations in park form, while also having all the trees properly labeled and catalogued, so that the people will be charmed by the beauties of these parks, and at the same time instructed by the information they will give as to the capacities of different trees in our different soils and climates. Golden Gate park is of inestimable value to all citizens. The experimental parks of this board, if properly supported and carried out, will have the same and an additional value to the residents of the State where they are situated. Besides this, they will add greatly to the attractiveness of the State itself. Few places in France are more generally visited than the botanical gardens at Paris; in England than the gardens at Kew; in Germany than the Thier Garten, near Berlin, etc.

In these parks scientific tree-culture is the main feature. Our experimental stations in California, owing to our climate, can be made both more useful and more attractive than any of them. It seems certainly advisable to show by such State institutions what the different parts of the State are capable of in tree-culture. These stations will do this by actual visible experiment to show what will succeed, and by reliable record to show what will not succeed, and thus save time and expense to the citizens, all the time attracting the settler by the beauties demonstrated in the park itself as a capacity of California.

Other portions of the volume contain reports from the engineer of the Board, H. S. Davidson, who submits detailed forestry maps of several of the northern counties of the State, and reports concerning the illegal cutting of forests on Government land, which the Board is endeavoring to stop. There is also a report by W. S. Lyon, head forester, concerning the adaptation of certain trees to California conditions, which we shall present to our readers at another time.

Our attention is naturally arrested in this first glance at the Report of the Commission by the work of Prof. and Mrs. J. G. Lemmon, the botanist and artist of the Board. These estimable scientists are so well known to the readers of the RURAL, either personally or by their contributions to our columns, that we have no doubt their share of the Report will be of especial interest in our parish. They visited nearly every county of the State and Lower California in their investigations of the pines of the Pacific Slope. After introductory statements treating of ocean currents, atmospheric conditions and land configuration—the several factors of forest production—a brief general view is taken of the Pacific forests, and especially those of the Sierra Nevada. Then follows a conspectus of the order of cone-bearers and tables showing distribution, etc., after which the main body of the work is reached—the pines of the Pacific Slope, giving first a descriptive list of the groups and species. The cone-bearers of the Pacific Slope, classed in three sub-orders or tribes, comprise 14 genera and 52 species.

Prof. Lemmon is entitled to special credit from lay readers in that he makes the attempt, which seems to us notably successful, to so classify, name, and simplify descriptions as to popularize the study of our interesting pines by the

ordinary reader, who is often deterred from study by the many technical particulars used in most works of instruction or discussion.

Following the "descriptive list" are extended descriptions of each of the California species, including in most instances a history of their discovery. A special investigation of two of our most valuable lumber trees—*Pinus ponderosa* and *P. jeffreyi*—follow, after which are placed "Pines in Literature;" and various topics of interest, including the discussion of the microscopic and other abstruse characters which, however, are necessary to a correct and full study of the pines, and are presented in a paper by themselves, "The Diagnosis of the Genus *Pinus*," placed at the end of the report.

Artotype illustrations, 24 in number, from photographs taken in the forests of characteristic trees, and from prepared specimens of cones, flowers, leaves, seeds, microscopic cross-sections of leaves, etc., have been carefully prepared. The larger and more elaborate water-color paintings by Mrs. Lemmon, treating closely of details, life size, of our California pines, could not be chromo-lithographed for this report, owing to the much greater expense of such works; but they will be perfected in certain details and augmented by other paintings, completing the series of California pines, when, it is hoped, a future report may be accompanied by these finished and most instructive illustrations.

But we cannot follow this valuable report further at this time. Though the name of the chairman of the commission, Abbot Kinney of Los Angeles county, only appears incidentally in the work, those who know his zeal and thoroughness in pursuit of ends he believes in well know that a leading share of the credit for the work done is due to him, and will award honor to whom honor is due.

The Monroe Doctrine.

It is about two-thirds of a century since President James Monroe announced the doctrine that bears his name, the pith of which is, that European powers must not meddle in the political affairs of the American continent. In his annual message at the meeting of Congress in 1823, he proclaimed to the world that the United States should "consider any attempt on their part to extend their system to any portion of this hemisphere as dangerous to our peace and safety," and "that we could not view any interposition for the purpose of oppressing or controlling in any manner their (governments on the American continent whose independence we had acknowledged) destiny by any European power in any other light than as a manifestation of an unfriendly disposition toward the United States." The occasion which called forth this announcement was the alliance of several European nations for the purpose of enabling Spain to subjugate Mexico and other countries on the southern part of the continent.

The Senate in recently passing the Edmunds Panama Canal resolution by a unanimous vote has fearlessly and emphatically reaffirmed the Monroe doctrine. Against any legitimate private enterprise on this continent, the United States offers no objection. A syndicate of French capitalists may spend shiploads of their money in the Panama canal and welcome, but no European power can assume connection with this or any other enterprise that in any way threatens to interfere with the liberty, happiness and prosperity of any people on this hemisphere.

There is no politics nor sectionalism in this position. It has become a sentiment akin to patriotism, and citizens of all shades of partisan opinions are united to enforce it. The time had come for the United States to define anew its attitude on this question. It was done by the Edmunds resolution in a very courteous tone. No threats were used that could give reasonable offense to any country, and yet all Europe was given to understand that it must keep its hands off this continent.

So far the Monroe doctrine has been no empty manifesto. The Holy Alliance dissolved more than half a century ago at its promulgation, and when France took advantage of our Civil War to invade Mexico, our Secretary of State informed the French Emperor that he was trespassing upon the Monroe doctrine. He treated it with contempt, and all the wits of Paris laughed in mockery, but before the smoke had died away after Gen. Lee's surrender, a

missive was sent to Paris that the French must bundle out of Mexico, or they would be put out at the point of the bayonet, and Gen. Sheridan, with a strong force, actually started to the Rio Grande for that purpose, but the French army was withdrawn before he got there.

A Notable Celebration.

The present Government of the United States under the Constitution was inaugurated in New York City April 30, 1789, when George Washington took the oath of office as President. Hence Tuesday, April 30, 1889, will be the one-hundredth anniversary of that event, and really the centennial of the United States as a nation. If the centennial of the Declaration of Independence was an event to be celebrated by such an industrial exhibition as that at Philadelphia in 1876, surely the centennial of the formation of the present system of government, the crown and consummation of the declaration that "these colonies ought of right to be free and independent," should receive some recognition.

To that end a committee for some time has had the matter in hand in New York and has just announced their program. Early on Monday, April 29th, the President and his Cabinet, Congress, and many other officials of distinction, will leave Washington and proceed via Philadelphia and Trenton to Elizabethport, in New Jersey, taking the same route that Washington took in going from Mt. Vernon to New York to be inaugurated. At Elizabethport the President's party will take the Government dispatch boat and steam up New York bay to the foot of Wall street, and all the vessels in the harbor will salute the party, as the vessels in the harbor in 1789 saluted Washington as he was rowed by 13 pilots in an elegant barge to the foot of Wall street. On Tuesday morning it is proposed to hold a brief religious service in St. Paul's Church, where Washington, Vice-President Adams and the two Houses of Congress attended service just 100 years before. The formal literary exercises will take place on the steps of the Sub-Treasury building on the corner of Nassau and Wall streets. Rev. Richard S. Storrs of Brooklyn will conduct the religious services, the Quaker poet John Greenleaf Whittier will furnish a poem and Hon. Chauncey M. Depew will deliver the oration.

Irrigation in Southern California.

These days are prolific in official agricultural literature, for the crop gathered by the State Printer is being distributed. The most notable perhaps is the report of the State Engineer, Wm. Hammond Hall, on irrigation in Southern California, embracing the counties of San Diego, San Bernardino and Los Angeles. It is not presented as a complete volume on the subject, for the summarizations on irrigable and tillable lands, water supply, practice of irrigation, storage of water, and others less important, are yet to come, each in a separate chapter, with its addendum of tabulated matter.

The work, then, in its present shape, is a most careful and detailed account of the organization and operation of irrigation enterprise and maintenance and running of irrigation work, the flow of streams, conservation of waters, and the history of the local enterprises. It gives, in short, a full and detailed description of such a variety of undertakings in developing, storing and distributing water, that it cannot fail to be directly and valuably instructive to all capitalists or co-operative associations of settlers who may be contemplating irrigation enterprises. We count it exceedingly fortunate for the progress of the State that such a report has been made, and we hope the portions relating to practice of irrigation will not be long delayed.

We notice that Mr. Hall, in his report to the Governor, makes what seems to us a well-grounded complaint that the publication of other officers working for the development of the State are issued free to all who wish them, while the reports of the State Engineer have to be purchased from the Secretary of State. Such is the law, but unfortunately so, for the work of the State Engineer should be made as free and available to the public as the work of other branches of the development machinery which the State is conducting. It would be of great public service to have Mr. Hall's last report as widely circulated as possible.

Artesian Wells.

The Requisite and Qualifying Conditions.

Drillers are now developing the sinking of artesian wells into a specialty, and through the aid of geological reports are mastering the stratigraphical elements of the problem in their several regions. Artesian wells form one source of pure water supply, but not always an un-failing one. This inconstant feature is an element which should lead to discussion, since they are a valuable resource in certain regions and under certain limitations, while in other regions they are only a lure to useless expenditure.

T. C. Chamberlain has contributed to the U. S. Geological Survey an article on the "Requisite and Qualifying Conditions of Artesian Wells," which is of great interest. He speaks of artesian wells as applied only to those that flow at the surface, condemning the use of the term as applied to denote deep wells not flowing. Artesian flow is but an expression of the common law of flowage made a little unusual by its special conditions. Any seeming strangeness

(Fig. 2) or else terminate in such a way (Fig. 3) or take on such a nature (Fig. 4) that water cannot escape in that direction. Now let rainfall and surface water penetrate the elevated edge of the porous bed and fill it to the brim. That such beds are so filled is evident by ordinary wells, which commonly find a constant supply at no great depth. Now it is manifest that if such a water-fat bed be tapped by boring at some point lower than its outcrop, the water will rise and flow to the surface, because of the higher head in the upper edge of the bed. If the surface water continually supplies the upper edge as fast as the water is drawn off below the flow will be constant.

Fig. 2 is an ideal section illustrating the chief requisite conditions of artesian wells. *A*, a porous stratum; *B* and *C*, impervious beds below and above *A*, acting as confining strata; *F*, the height of the water level in the porous bed, *A*, or, in other words, the height of the reservoir or fountain-head; *D* and *E*, flowing wells springing from the porous water-filled bed, *A*.

Fig. 3 is a section illustrating the thinning

and *H*, wells that do not flow. The bed *A* might give a flow at *G* and *H* but for the defect in *C*, which permits the water to descend into *B* and escape through its outcrop, which lies below the surface of *G* and *H*.

Fig. 8 is intended to illustrate the aid afforded by a high water surface between the fountain-head and the well. *A*, a porous bed; *B*, a confining bed below; *C*, a confining bed above. The dark line immediately below the surface represents the underground water surface. Its pressure downward is represented by the arrow *m*. The pressure upward, due to the elevation of the fountain-head, is represented by the arrow *n*. The line *F* represents the level of the fountain-head. There can be no leakage upward through the bed *C* except near the well *D*. There may be some penetration from the bed *C* into *A*, which would aid the flow.

Fig. 9 is a double section illustrating the effects of high and low water surface in the cover area. In this *A* represents the porous stratum inclosed between impervious beds, *B*, *C*. The source of supply is at *H*, and proposed well at *F*. Let *E* be supposed to represent

Fig. 12 illustrates a common effect of erosion upon the surface area of the porous stratum, and the contour of the resulting basin. The dotted lines show the original contours.

Fig. 13, section illustrating the advantages of low inclination. *A*, porous bed; *B* and *C*, impervious beds. *A'* and *A''* indicate porous beds of higher dip.

We shall continue this subject of artesian wells and give some facts relating to their proper distribution in certain regions.

THE WALLA WALLA UNION says: The Northern Pacific Railroad Company has perfected a gigantic colonization and immigration scheme for Washington Territory. Agents will be sent to England and Scotland to encourage the emigration of agriculturists. The land to be settled lies in the Big Bend and belongs to the Northern Pacific.

REMEDY FOR BLACK ROT IN GRAPES.—Experiments made during the past year, in both this country and Europe, have shown that black rot of the grape can be wholly pre-

Fig. 1.



Fig. 2.

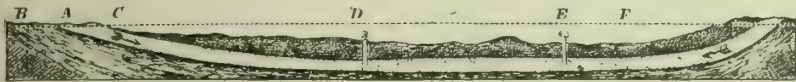


Fig. 3.

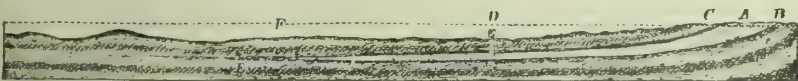


Fig. 4.

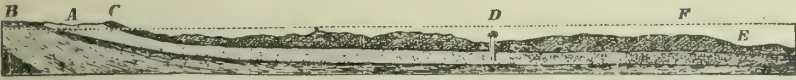


Fig. 5.

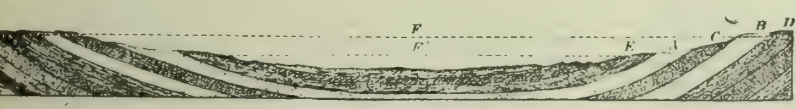


Fig. 6.



Fig. 7.

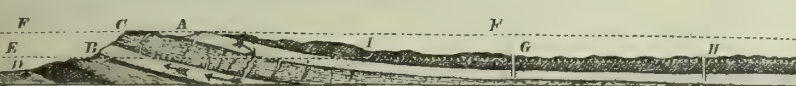


Fig. 8.



Fig. 9.



Fig. 10.



Fig. 11.



Fig. 12.



Fig.



GEOLOGICAL CONDITIONS AFFECTING THE FLOW OF ARTESIAN WELLS.

springs from partial observation. Certain portions of the water of every stream are always "running uphill," though its average mass is moving down. The bottom layer flows up and down, according to the inequalities of the bed, while the top layer declines more uniformly with the surface slope. In the artesian stream we only see the rising column issuing from the earth and the brooklet that flows away. The more potent descending volume that forces the flow is concealed. No portion would rise if it were not forced up by a superior portion pressing down.

Fig. 1 of the cuts (see page 53) is a longitudinal section of a stream, illustrating in part its upward currents, subordinate to the general downward flowage.

To fashion a single idea of the common class of flowing wells, picture to the mind a pervious stratum through which water can readily pass. Below this let there be a water-tight bed, and let a similar one lie upon it, so that it is securely embraced between impervious layers. Suppose the edges of these layers to come to the surface or some elevated region (save that they may be covered with soil and loose surface material) while in the opposite direction they pitch down to considerable depths, and either come up to the surface again at some distance

out of a porous water-bearing bed, *A*, inclosed between impervious beds, *B* and *C*, thus furnishing the necessary conditions for an artesian fountain, *D*.

Fig. 4 is a section illustrating the transition of a porous water-bearing bed, *A*, into a close-textured, impervious one. Being inclosed between the impervious beds, *B* and *C*, it furnishes the conditions for an artesian fountain, *D*.

Fig. 5 is a section illustrating the usual order in which the strata of a basin come to the surface; *A* and *B*, porous beds; *D* and *E*, impervious beds; *C*, a half impervious bed; *F* and *F'*, the water levels of *A* and *B*, respectively.

Fig. 6 is a section illustrating the possible effect of erosion upon strata originally like those in Fig. 6; *A* and *B*, porous beds; *D* and *E*, impervious beds; *C*, a half pervious bed; *F* and *F'*, the water levels of *A* and *B*, respectively. If the stratum *C* is not practically a confining layer, the water from *A* will pass through it and escape at the edge of *B*, so that a flow cannot be obtained at a higher level than it, but may be had below the line *F'*.

Fig. 7 is a section illustrating the failure of an artesian well because of defects in a confining bed below. *A* and *B*, porous beds; *D* and *E*, impervious beds; *C*, a defective confining bed; *F*, the water level of the stratum *B*; *G*

surface of ground in one of two supposed cases, and *D* the surface in the other. The arrow springing from surface *E* represents upward tendency of water in porous bed, owing to pressure from fountain-head, while the arrow depending from line *D* represents downward pressure of ground water, whose surface is represented at *D*, and is, it will be observed, more than equivalent to the upward tendency due to pressure from the fountain-head. A flow at *F* could be very safely predicted if the surface were as represented by *D*, while it might be doubtful whether one could be secured if the surface were as represented by *E*.

Fig. 10, illustrates the possibility of a flow from a bed even when exposed at a lower level; *A*, a sandstone bed, thick and coarse at the right, its shore edge, and thinner and finer at the left. *B* and *C*, confining impervious beds. *F*, the water-level in *A*. *D*, a well which may flow notwithstanding the lower exposure at *E*.

Fig. 11 shows the dependence of the collecting area on the thickness and slope of the porous beds. In the left-hand figure the porous bed *A* is thin, and, coming to the surface at a high angle, gives but a small section. In the right-hand figure the bed *A* is thick, and, coming to the surface at a low angle, its beveled edge is broad.

vented by the proper application of the sulphate of copper compounds. A circular describing the manner of applying these has been prepared by B. T. Galloway, Chief of the Section of Vegetable Pathology in the U. S. Department of Agriculture at Washington, D. C. It will be sent on application to all grape-growers and others interested in such matters who may send their names to Mr. Galloway as stated.

TIMBER ON GOVERNMENT LAND.—The jury in the case of the United States Government against the Sierra Lumber Company after deliberating all Friday night, returned a verdict in favor of the plaintiff and assess the damages at \$41,000. It was said that several members of the jury were in favor of rendering a verdict for \$175,000, but the compromise was effected for the amount of the verdict. The case has been dragging on in the Circuit Court since Dec. 4th last, and was brought by the Government to recover \$2,217,254.20 for damages for cutting timber on Government land in Tehama county.

THE mild weather is causing loss to New York apple-growers, who have half a million barrels of fruit stored. Rot has set in and it is feared one-half will be lost.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

GLANDERED MULES.—*Oakland Tribune*, Jan. 24: Four weeks ago, G. W. Jones, West and Lydia streets, purchased a pair of mules from a Napa man for \$300. The animals were worked in this city for a week, when they became sick. Jones took them to a veterinary surgeon, who attempted to cure them. They kept getting worse and Jones took them to Dr. G. W. Stimpson, who announced that they were suffering from glanders and farcy and condemned them. This morning they were taken to the bone-yard and killed. Dr. Stimpson states that there are a number of so-called veterinary surgeons who attempt to cure this disease and thereby endanger the lives of human beings as well as other horses.

HAY FOR NEW YORK.—*Livermore Herald*, Jan. 24: Two carloads of Livermore hay will leave this place to-day for Sheephead bay, N. Y., in response to an order from Senator Hearst. It will be shipped by the Farmers' Union. An agent of Mr. Hearst made the purchase, and will inspect every bale. The hay is for the use of the Senator's racing stock. The freight is \$29 per ton, making this a pretty expensive lot of hay, even for a millionaire. This is a decided compliment to Livermore valley.

PLANTING FOR GOOD.—W. W. Colestock is planting 20 acres of his farm in the east end of our valley with apricots and almonds in a novel way. Owing to the high price of nursery stock, he is simply planting the seeds—apricot pits and almond nuts—where he wishes the trees.

Amador.

NEW HARROW.—*Jackson Ledger*, Jan. 26: Wm. J. Glanville of Amador City has invented an improved harrow. It is made of four-inch links of steel, so joined together that every alternate link works on its angle, and these links perform the harrowing work. It is said to answer splendidly for cleaning land of grass roots, for covering all kinds of seed and leveling the soil. It is a great labor-saver, doing its work as well as the ordinary harrow in two-thirds the time. Mr. Glanville has applied for a patent for his invention.

ABOUT PLYMOUTH the weather has been so favorable that farmers have got in the largest acreage that has ever been put in in this part of the county, and it is looking better than ever before.

Inyo.

CORN.—*Inyo Independent*: A few days ago we were shown two large piles of husked corn on the farm of W. L. Hunter, at George's Creek. One of the piles was from seed corn common to all parts of Owens valley for many years. The other was from seed sent to this paper from Washington two years ago and given to Mr. Hunter. The entire product of the first lot was saved and used as seed, from which this corn is the product. Compared with this the old native corn is the meanest kind of nubbins. The newer variety has large ears and plump, well-filled grains. One bushel of these ears would be worth two of the old variety. This corn was planted and tended by an Indian, who worked for a part of the crop. He made a good thing of it, and Mr. Hunter is well pleased with his share.

Kern.

FEWER HARES.—*Bakersfield Echo*, Jan. 24: An impromptu rabbit-drive was held at H. Borgwardt's ranch west of town last Sunday. A large number went out from town, but the catch was a small one, only about 200 being corralled and killed. This ranch was one of the favorite places for this exhilarating sport last year, and a catch of 1800 was the least one made. From that the number ran up as high as 5000. The explanation for this great falling off in the number killed this year is that the rabbits are not to be found. The lines were well drawn Sunday and but the usual per cent escaped. If the result of this drive shall prove a good criterion by which to judge the number of rabbits in the county, there will be much rejoicing among the farmers.

HORTICULTURAL COMMISSIONERS.—The supervisors have reappointed C. A. Maul to be a member of the Horticultural Commission, vice himself, term expired, and M. Wyatt of Kernville, vice J. B. Batz, resigned. Their compensation was fixed at \$5 per day, which, the order says, shall cover their expenses. Col. L. W. Burr, the third member, informs that he and Mr. Maul will act at once on any complaints that may be lodged with them. We have not heard whether Mr. Wyatt will accept his appointment or not, but presume he will. There is some scale in the county, and it is to be hoped that fruit-growers, as well as people generally, will give the Commissioners every possible assistance in the work of ridding the orchards of these pests.

Los Angeles.

POISONING LINNETS.—T. M. C. in *Pomona Progress*, Jan. 17: Linnets are becoming as great a nuisance here as the sparrows are in the far Eastern States. They destroy the buds on the fruit trees, and thus do injury to the crops. Now the only preventive is to poison the birds. During the past week I have killed over 350 linnets in this way, and if every fruit-grower would take the matter in hand, we should soon be rid of them. Take apples,

quarter them and make a hole in each quarter large enough for strychnine about the size of a pea. Then punch the fruit in 12 or 15 places so that the strychnine can permeate every part. Place the quarters on the twigs of the fruit trees, so that the linnets can easily peck at them, and chickens cannot reach them. The poison acts almost immediately on the birds. I find that nearly all of them die within 100 feet of the poisoned apples, and many within 10 feet. If every orchardist hereabout will at once begin poisoning the linnets, we shall be comparatively free from them for a long time. Care should be taken that the poisoned birds are quickly buried so that their bodies may not cause more poisoning.

NAVEL ORANGES.—*Orange Tribune*, Jan. 26: F. M. Wilber deposited in the show window at Seaber, Scott & Co.'s office last week a Riverside Navel orange from a tree upon Mrs. N. C. Robbins' place. The specimen was a great big beauty weighing one pound, seven ounces and measuring 15 inches around. A pair of twin Navel oranges was given us this week by Ernest Parker, taken from his father's ranch, which weighed considerably over two pounds and were pretty to look upon. One of them went East as a specimen. To a friend, at 45 cents express charges. You can't send fresh fruits by mail.

SUGAR BEETS.—*Anaheim Gazette*, Jan. 24: A large and enthusiastic meeting of citizens of the valley was held at Santa Ana Monday afternoon to consider the establishment of a beet-sugar factory. Representatives from Orange, Tustin, Garden Grove, Fairview and other sections were present. An exhaustive report of the result of a trip to Watsonville was given by S. W. Smith, and beets and sugar made there were on exhibition. Sixty-four packages of beet seed will be distributed among the ranchmen, in order to test every variety of soil in the valley. At least six months will be required to complete the test. The ranchmen are particularly interested in the matter, and show a disposition to sift the industry. A vote of thanks was tendered the citizens, especially the managers of the beet-sugar factory at Watsonville, for courtesies shown the representative of Santa Ana valley during his sojourn among them.

LARK VS. SCALE.—*Los Angeles Cor. Chronicle*: L. J. Rose has just received a consignment of 25 skylarks from Europe, which he ordered five years ago. His agent had great difficulty in securing the birds, which are said to be the only specimens in America. The birds are supposed to be the natural enemy of the scale bug. They will be let loose in a few days, except a few pairs which will be kept for breeding purposes.

Merced.

A CHEERING OUTLOOK.—*Merced Argus*, Jan. 26: The weather continues favorable for the growth of cereals, and prospects for an unusually large yield next harvest-time continue to improve. Winter plowing and planting are prosecuted industriously, and already a very large increase in acreage over past seasons is in cultivation. Along the East Side canal several thousand acres have been sown to alfalfa; large tracts of hitherto sheep-pasture have been put in grain; the soil is in good condition and easily irrigated. Some thousands of acres, subject to irrigation, will also be planted to vines and orchard, affording employment to a large force of men upon the farms. Labor, so far, has been abundant at reasonable prices.

PUTTING THEM TO WORK.—*Merced Cor. Bulletin*, Jan. 24: Constable Leggett brought before Justice Jones this morning 13 tramps charged with sleeping in Starving's barn with out consent of the owner. All pleaded guilty and each was sentenced to ten days in jail. They will be put to work on the streets and the Courthouse grounds.

Napa.

IN THE THERMAL BELT.—*Mallie S. in St. Helena Star*: On the northern slope of Howell mountain the orange trees in sight of my window are green and growing luxuriantly, but are not yet of sufficient maturity to bear; grapes, ripe and fit for table use, are still on the vines, as up to the present time—the middle of January—we have had no frost to hurt; geraniums, fuchsias and other varieties are still blooming in the open garden; so also are roses, pinks, japonicas, violets, phlox, verbenas, and just now the sweet-scented narcissus, that queen of winter blossoms, is in all its beauty. In the vegetable garden we have new potatoes and green peas—planted in the autumn—lettuce, onions, carrots, parsnips, beets, etc., ready for use. I must not forget to add that strawberry plants are now in bloom, and the Cathbert raspberry continues to bear—blossoms, green fruit and the red, ripe, juicy berries being all on the same stem.

Nevada.

A DITCH PROPOSED.—*Grass Valley*, Jan. 25: Farmers in the southwestern part of Grass Valley township are organizing to construct an irrigation ditch to take water from the South Yuba Canal Co. and lead it by Osborne hill, through Forest Springs, and then on down the country. The proposed ditch will be an advantage to a good farming and fruit country and will give power for working a number of mines which are below the fields and orchards.

San Benito.

EDITORS PRESS.—Farmers here are nearly through putting in their crops and are looking anxiously for rain, late-sown grain being badly in need of a shower. Most of the farmers living up the San Benito river are through with

their crops. We have had frost almost every night for a couple of weeks, and sunny days. Pasture is short, owing to the cold nights. Stock which depends upon the grass for a living is in a poor condition and stock-raisers look gloomy. A warm rain would help the grass immensely. Quite a number of acres in this locality have changed owners during the last year or two. The land formerly owned by the Southern Pacific Co. has been sold, Mr. Promis of San Jose having bought a large tract, which he rented to W. Nobles of this place, who is now farming it. Several new buildings are being erected, and things look prosperous at present. Mr. Churchill is intending to plant out a nursery and vineyard this spring. Some experiments in raising early garden stuff were tried here last year and met with perfect success, potatoes and peas yielding well and of excellent quality. Turnips also do well here, growing very large and being sweet and juicy. Several people from the East visiting here complain of our roads being in such poor condition. Why don't our supervisors see that our roads compare favorably with those of other counties? Hollister needs an intelligence office; help is very scarce.—A. F., *Hollister*, Jan. 25th.

FINE ARTESIAN FLOW.—*Cor. Chronicle*, Jan. 26: A magnificent flow of artesian water was obtained to-day on the B. McMahon ranch, two miles north of Hollister, at a depth of 450 feet. Through an eight inch pipe, with the boring tools still in the well, which is choked with sand, the water rises to a height of 8½ feet above the ground. When cleared, the water will rise 30 feet. There are over 100 artesian wells in the county, but this is the best.

San Bernardino.

ALMONDS.—*Ontario Record*, Jan. 23: E. P. Norwood, one of Cucamonga's pioneers, is making a new departure, and will give almond culture special attention. His almonds received a silver medal at the Los Angeles Pomological Fair last year. He has seven varieties, ranging from the paper-shell to the regular almond of commerce. The specimens shown us were the handiest we have ever seen. Mr. Norwood has 30,000 young trees started, and can supply any wishing to plant this nut.

PRODUCTS OF THE COUNTY.—A *Times* reporter dropped into the rooms of Rising & Pope, on Third street, and found that quite a number of exhibits had already been placed in position. On the west side of the room, next to the desk of the Board of Trade, is the Chino exhibit, which consists of vegetables of all kinds, watermelons, pumpkins, etc. Directly opposite is Redlands' fine display of oranges, lemons, raisins, dried and preserved fruits, grains, etc. Opposite this is coal, gypsum, alum and minerals of various kinds from South Riverside. In the front of the room on the east side is a fine display of plants, ferns, etc., made by Wagner & Soule, nurserymen. San Bernardino has a display of oranges, lemons, tomatoes, strawberries and other things in the front center. The exhibits now in place are attracting a great deal of attention from strangers.

San Diego.

EDITORS PRESS.—The country is looking finely now. We have had 11 inches of rain in this locality, and prospects were never brighter at this time of the year. Barley and wheat are looking their best. Beemen are in good spirits, and real estate is looking up compared to what it was six months ago. There is no more "Sweetwater," but "Dehesa."—A. W. Osburn, *Dehesa, San Diego Co.*, Jan. 21, 1889.

FRUIT INSPECTOR.—*National City Record*, Jan. 24: The Board of Supervisors did a wise thing in creating the office of Inspector of Fruits of San Diego county, and appointing J. P. Jones to the place. His salary is fixed at \$2500 per year and all expenses. Mr. Jones has taken great interest in horticulture, and his observations and experience will be of great benefit to all fruit-growers. His principal duty, of course, will be to keep the county clear of all pests. He has established an office in the rooms of the Chamber of Commerce.

LARGE SHIPMENTS OF ORANGES are being made from Sweetwater valley to San Francisco. So far both Mr. Higgins and Mr. Whitney have confined themselves to picking enough fruit to prevent a breaking of the trees, which are heavily loaded. Of oranges alone these gentlemen will ship 2500 boxes each this season. This does not include lemons.

Santa Clara.

VAGRANT HORDS.—"You may tell the householders of San Jose and the county generally for me," said Sheriff Sweigert to a *Mercury* representative the other day, "that there is an influx of tramps such as we have never known before. They are pouring in from all quarters, but chiefly from Los Angeles and San Diego, whence they have been driven out, and they are the chaps who have been doing so much petty pilfering lately. No house left alone is safe, and at night all doors should be carefully locked and watchdogs turned loose."

NEW POTATOES.—*Los Gatos News*, Jan. 25: Mr. L. Hill sent to this office this week some very fine new potatoes grown on his place. This shows what good soil will produce. There is no reason why our people should not have luxuries all the while. The grape season lasts till Christmas, and then new potatoes, raspberries and other fruits and vegetables easily grow in open air.

Shasta.

TAMARACK COLONY.—*Cor. Redding Democrat*, Jan. 17: We have had a most beautiful winter so far—scarcely any snow. In the Tam-

arack colony all seem to be happy and doing well. The new-comers are all good workers and are improving their farms by felling the pine timber, clearing their land, plowing their ground and sowing the same in grain. Most of them have got water on their places and can raise fine spuds, beans, onions and alfalfa. Whitmore, owned by Mr. Whitmore, is the postoffice for the vicinity. He has some grain in that looks as fine as any I saw between here and San Francisco. Mr. Jones has some fine-looking grain and a young orchard growing on red-land without irrigation, which will bear in a couple of years. Mrs. Beanyer has some fine grain. I saw her out plowing; pretty good for a woman! If she doesn't make a success of farming, it won't be her fault. Owen Daily has as fine grain as can be found anywhere. He has water on his place, taken from South Cow creek. He also has some fine timothy meadow and a young orchard that was loaded down with fruit last year. Henry Stacher, 24 miles from Millville, raised some fine oats, wheat and hay, which sells on the Tamarack road. East of his place is the Summit sawmill. Six other places in the vicinity of the mill are all doing well. South of the mill is Tom McMullen's place, which is seeded down in meadow grass and red top.

Sonoma.

COYOTE SCALES.—*Petaluma Courier*, Jan. 23: At the meeting of the Board of Supervisors last week a bounty of \$15 for each coyote killed in the county was granted. This news will be hailed with pleasure by people who have been pestered with the varmints. We understand that they are quite numerous in some places in the county and very destructive.

CANNING COMPANY.—*Santa Rosa Democrat*, Jan. 26: A stock company was organized in Healdsburg Thursday under the name of the Magnolia and Healdsburg Canning Co. with a capital stock of \$100,000. The directors elected were: Geo. E. Guerne, E. H. Barnes, J. Dail, R. Robe, W. J. Hotchkiss, J. W. Cottle, T. Merchant was elected president. The company is composed of energetic and substantial business men thoroughly conversant with the needs of the fruit industry. It is proposed to build a large addition to the cannery and make such other improvements as the handling of the growing fruit product of that section may require.

Stanislaus.

A NOTABLE CLUSTER.—*Oakdale Graphic*: Silas Bishop has a branch of an orange tree suspended from the ceiling of his room in Oakdale that has an even half hundred oranges on it. The oranges are clustered so closely that the wonder is how they could cling to the branch long enough to grow and ripen. The twig was cut from a tree in Kasper Vogt's orchard at Knight's Ferry, and brought to Oakdale by Mr. Vogt in person.

A SOLID COLT.—*Modesto Herald*, Jan. 17: This week Matthew Moyle turned over to Willis Bledso, of Modesto, the Norman colt which the latter gentleman purchased of him some six months ago. The colt is now two years and nine months old and weighs 1605 pounds.

A RED GUAVA (*P. pomiferum*), the only tree of its kind in Stanislaus county, is to be seen in the orchard of Mr. Baloh, at Knight's Ferry. The fruit when ripe is oval, and about the size of a peach. The outside has the astringent taste of the pomegranate, but its pulp is very agreeable, and from it is made the delicious guava jelly of commerce.

THE OAKDALE IRRIGATION Co.'s engineers have completed the survey for the canal. The Graham survey runs on lower ground than the Fowler survey, and the cost of construction will be much less. The ditch will cross the road between Sawyer's and Cottle's, passing south of Oakdale near the house formerly occupied by D. W. McPherson. There is no question but that water from this ditch can be taken to all parts of Oakdale, including the Garden tract. From 60,000 to 100,000 acres of as fine garden and orchard land as lies out of doors will be within reach of the waters from the Oakdale Irrigation Co.'s canal. Much of this land will be cut up into tracts of five acres and upward and sold in quantities to suit purchasers. Need we offer a remark as to the beneficial effects of this change from a wheat-growing county with one family to a section, to one with a family to every 40 acres?

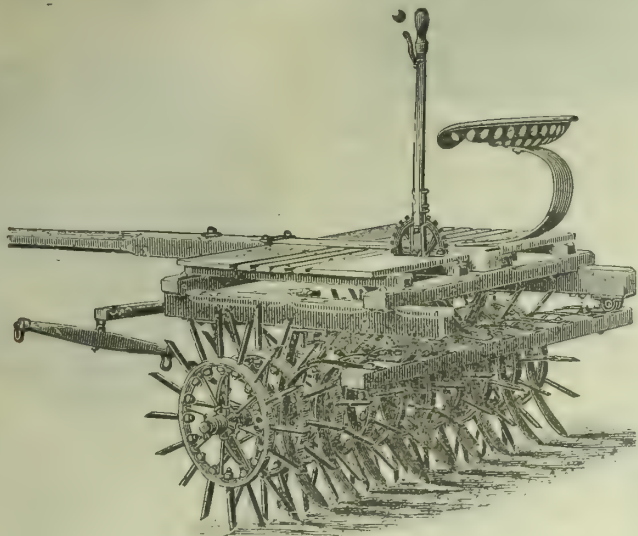
Tulare.

WILD HOGS and deer, says the *Visalia Times*, abound in the thickets adjoining Richard Chatten's farm on the south, five miles east of town. Persons who have never visited that section can hardly realize what a scope of wild country there is in such close proximity to this city. Occasionally a deer is laid low in those parts, but it was Mr. Chatten's good luck to enjoy some profitable sport there last week, when, with the assistance of a few men, who understood the business, he caught 71 head of wild hogs. The porkers were shipped to San Francisco.

Yolo.

GOOD REPORTS.—*Capay Cor. Democrat*, Jan. 23: The grass in the hills is fine. Our stock of all kinds is doing well. Stockmen report as yet no losses in their herds. Everybody is busy. The farmers are getting along finely with their winter sowing, and will soon be done. There was never a more favorable season than the present, plenty of rain, yet plenty of time to sow, warm and pleasant with but very little frost. The crops are far advanced for the time of the year.

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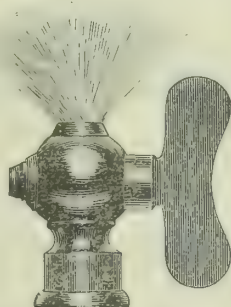
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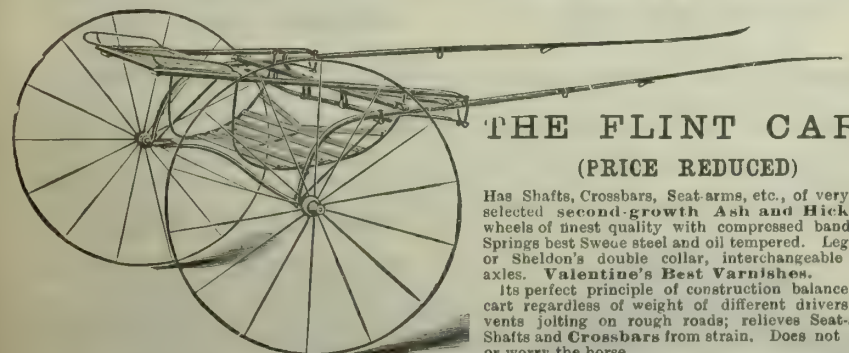


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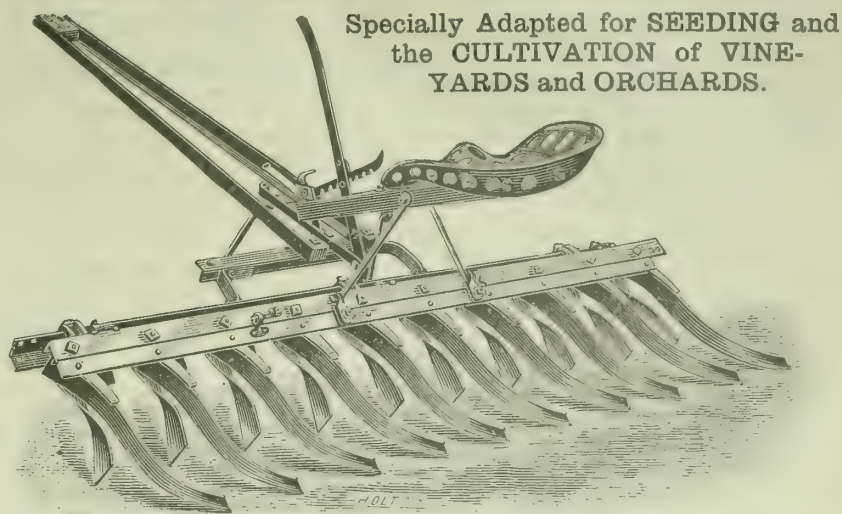
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HORTICULTURE.

That So-Called Muir Peach.

EDITORS PRESS:—In your issue of Dec. 15, 1888, appears an article from the pen of Mr. G. W. Thissell of Winters, in defense of his pet—the so-called "Muir peach"—wherein Mr. Thissell proposes to "settle forever" the question of identity of said peach.

"I say the Muir is a true California seedling," "a seedling of the Crawford."

The last above is Mr. Thissell's text, and from that text we would naturally expect a chain of genealogical "linking up" that would make his position clear. But having no trail to follow (he doesn't like trails), he gets the thread of his intended argument tangled up in the jungle, and forgetting everything but his text, he again vehemently announces that, and closes with a few rambling remarks upon dissenters and troublesome inquirers.

In my letter of *RURAL* Oct. 13, 1888, I traced the Old Pool's Late Yellow with unerring foot prints from the Socol nurseries, Napa county, to the celebrated orchards of the Woolfskills on Putah creek. It was there and in that vicinity that the Pool's Late was largely colonized, cared for, and diligently nursed, until it developed, or rather degenerated, into an emphatic tramp. Being found wholly valueless and unprofitable, it was, as a cumber of the ground, evicted from every orchard, and simultaneously expunged from every nursery catalogue of the State.

It was there it perished and was buried. And it was there, in the very environs of that Old Pool's Late burial-ground that Mr. Thissell says "he found" his so-called Muir, which he vehemently declares is a "true California seedling," and, most remarkable, "a seedling of the Crawford."

Now here is where the most important point in this controversy comes in. Why does Mr. Thissell presume to float his so-called new find, the Muir, under the ample wing of the Old Crawford? That is the question which Mr. Biglow of Antioch asks.

What is the answer of Mr. Thissell to that modest question? And also to another pertinent question of Biglow's? He, Thissell, says (*RURAL* Dec. 15, 1888): "I cannot tell, but suggest that Mr. Biglow put Thompson of Vacaville on the trail, and he might explain."

Yes, Thompson of Vacaville is already on the trail and fully prepared to explain, and, if needs be, in a future article of the *RURAL* will, for the benefit of whom it may concern, be most happy to explain.

Now all the peculiar characteristics of that old Pool's Late, not only of the fruit as it appeared a quarter of a century since on the Pacific Coast, but of the tree and its habit of growth, and the leaf thereof, are well known to numbers of the old residents of this now famed "Vaca Fruit Belt," and in fact all along the "old trail" which I "blazed out" in my letter in the *RURAL* of Oct. 13, 1888, are still living and to be found.

The early residents who became familiar with the old Pool's Late, and who are now familiar with the so-called Muir, what do they say? In every instance, without a dissenting voice, these old and early fruit-growers pronounce the so-called Muir a perfect fac-simile of and identical in every particular of fruit, tree and foliage with the Pool's Late. Can it be possible that all these people, fully as substantial and reliable, and perhaps fully as observant as Mr. Thissell, can be mistaken? Is it fair or reasonable to pronounce all these old residents ignoramuses who do not know what they talk about? Is Mr. Thissell the one and only "wise man" of all this renowned "Vaca Fruit Belt"? Of that a discriminating public must judge.

Mr. Thissell, in his vain endeavor to bolster up his position, flees to the old authorities, and quoting simply from the descriptive catalogues thereof triumphantly remarks (*RURAL*, Dec. 15, 1888): "Any man with common sense that will read the description of Pool's Late, as given by Downing and Thomas, and then read Thompson's description of the same (*RURAL*, October 13, 1888), will see at a glance that Thompson was talking about something he knew nothing about."

Now right here I beg to submit the question: Does not every old and experienced fruit-grower on the Pacific know from observation and repeated comparison that the descriptions of fruits as given by those old authorities are simply descriptions as they found these fruits on the Atlantic seaboard of America? Do not all the old and observant orchardists of the Pacific Coast know that in many instances descriptions by those old authors will in no way apply to nor fit the same fruits as they develop on the Pacific seaboard? Is it not a fact patent to all close observers that in the rich soils and genial climate of California a new pomology has been developed, the like of which was never dreamed of in the philosophy of those old authors? Some varieties are vastly improved by the change; others degenerate into veritable tramps. Among the latter the Pool's Late Yellow peach, the undoubted alias of the Muir, was one of the most pronounced. Being fickle and erratic in character, it so degenerated as not to be recognized as the same peach described by Downing and Thomas, Elliot and others.

Let us for a moment pause and see what

those "old authorities" say on the subject of the peach.

Mr. Downing in his exhaustive treatise (and the other authorities all concur) traces the peach from its native home in Persia down through the Roman Empire and thence to America, on whose soil he follows it for a period of 150 years, minutely noting all its peculiarities and eccentricities of development, closes his remarks as follows. I quote *not his exact language*, but the substance thereof:

In the description of peaches, the form and outlines of kinds are so nearly similar that we are obliged to resort to other characteristics than those presented in the fruits themselves in order to distinguish the one from the other. Where a question arises as to identity, we must go to the leaf of the tree.

The leaf is constant and unvarying in its peculiarities, and for the very purpose of settling questions and verifying opinions, they, the authorities, have divided the peach family into three classes, to wit:

- 1st. Leaves serrated without glands.
- 2d. Leaves with globose glands.
- 3d. Leaves with reniform glands.

In no instance do those authorities rely upon the color or outline of the fruit; in no instance do they refer to the pit or its surrounding color as a distinctive guide for the purpose of determining a variety. Why? Because color and general characteristics of the fruit and pit are fickle and liable to changes, while the leaf remains always the same, unchanged and unchangeable, by soil, climate, exposure or culture.

Now, with the fruit of the so-called Muir and that of the Pool's Late being identically the same, with the habit of tree and growth of wood precisely the same, willowy and pendent, and, above all, the leaf of both belonging to the same class—reniform glands (as per the authorities), with all these facts and unmistakable features standing out prominently before him, I ask with all deference, on what grounds, other than his flat and unfortified assertion, can Mr. Thissell claim his pretended new find, the so-called Muir?

The question naturally arises: Has Mr. G. W. Thissell of Winters, like a veritable Columbus, presented us with a new pomological feature, or has he, like the grave-digger in "Hamlet," wandered into Pomona's burial-ground and therefrom exhumed the skeleton of a relegated race, and, dressing it in the habiliments, and crowning it with the glory, of the old monarch of the orchard—the Crawford—presented it to the public as the scion of that old family with the following most remarkable and extravagant eulogy? I quote Mr. Thissell's language as per *RURAL* of Dec. 15, 1888:

"The Muir is undoubtedly a seedling of the Crawford, and yet the Muir *excels* the Crawford as far as day excels the night."

What a monumental beacon of delusion to hang on our horticultural horizon! Small wonder Mr. Thissell's table is laden with inquiring letters; small wonder that Mr. Biglow of Antioch flees to the columns of the *RURAL*, and, in the agony of disappointed hopes, exclaims: "About this so-called Muir there hangs a mystery."

There is absolutely nothing in the experience of modern peach culture, nor in the authorities, to warrant the above *misguiding assertion* of Mr. Thissell. "This borrowing the livery of royalty in which to dress and present the rabble" is what envelops our pomology in vexatious uncertainty and muddled confusion.

I regret having been drawn into this controversy; but Mr. Thissell having sent for me, I have come; he having called me, I am here, and having demanded my proofs, I beg to say when the season of fruits and foliage again rolls around, I will be glad to meet Mr. Thissell before a competent pomological court and offer ample testimony in support of my position.

THOS. H. THOMPSON.

Vacaville, Jan. 26, 1889.

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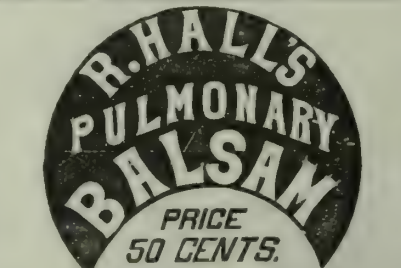
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WEEKLY OFFICIAL GRANGE EDITION.

Succeeding officially the weekly issues of the
CALIFORNIA PATRON.



A Faithful Advocate
FOR THE P. OF H. OF OREGON.

Endorsed by and under Editorial Direction of the
STATE GRANGE OF CALIFORNIA
Through its
EXECUTIVE COMMITTEE.

A. T. DEWEY, MANAGER.

[Grange News Continued from Pages 100 and 101.]

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BRO. OLIVER JORY of Salem Grange, Oregon, called at this office January 30th. We were pleased to receive a visit from this representative Oregon Patron and requested him to visit some of our California Granges while here. He has agreed to visit Stockton Grange on the 6th, when Bro. Carr will be present, and we predict for him a hearty welcome.

BRO. V. W. STILL writes us that Eureka Grange has not been prospering as well as he had hoped it would. They have elected a new set of officers, and intend to make a strong effort toward prosperity. Bro. Still says that he intends doing some work for them soon, and hopes to obtain new members.

WE are pleased to note that Alhambra Grange has again elected Dr. J. Strentzel Master. He has served faithfully many years as Master of this Grange. The Overseer, Steward, Assistant Steward, Treasurer and Secretary were also re-elected for another term.

Official Circular to Subordinate Granges.

Jan. 25th the following circular was sent to each Subordinate Grange in California. We insert the same here, so that in case the circular failed to reach any secretary any member reading it might call attention of their Grange to the same. Nearly all the printed matter included to appear in one or the other of our issues for Jan. 19th and 26th:

OFFICE SEC'Y STATE GRANGE, P. OF H.,
S. F., Cal., Jan. 25, 1889.

W. M. and Patrons:—I have the pleasure to transmit to you the accompanying official notices, together with other matters of important interest to all Patrons, as published in the Grange edition of the PRESS. Being too lengthy to read in full before the Grange, in some instances at least, I would recommend the Worthy Master and Secretary to peruse the printed notices, and after consultation have some of the most important ones read, and a condensed review of the information contained in others given to the Patrons by the Secretary or Worthy Master. Such portions as time will not admit of reading might well be discussed at subsequent meetings.

There are strong evidences of progress in our Grange field, and it is hoped that all good and true Patrons throughout our jurisdiction will take new courage, and with renewed zeal use extra efforts at once to revive the work and increase our numbers.

We would call your attention to the new arrangements for publishing the official weekly organ of the Grange, which, it is believed, will prove a permanent and satisfactory improvement, and one which can be confidently and vigorously supported by every Grange and every Patron. To make this, as well as any other enterprise of the Grange, a well-rounded-out success, requires the active support and patronage of all intelligent Patrons. It therefore remains for you to support our official journals to such an extent as to make their efforts productive of good results.

Worthy Master Overhiser requests that the Masters of subordinate Granges of counties or districts for which District Deputies are appointed shall confer, with as little delay as possible, and recommend to him for appointment, or re-appointment, suitable and active Patrons as Deputy Lecturers for the ensuing year. All present Deputies will continue until they are notified, in case of new appointments.

I would suggest that you make the bills to be acted upon at our present legislative session, published or named in the accompanying printed matter, the subject of discussion, either at some stated regular meeting or an open meeting called for the express purpose, inviting the attendance of farmers generally, taking pains to give ample notice through local and Grange papers.

You will find inclosed a copy of the amendments adopted by the State and National Granges, which should be preserved for reference; also a circular from the publishers of the PACIFIC RURAL PRESS to be read and considered at your meeting.

It seems to me there was never a time, brothers and sisters, when duty called us to work more faithfully in a cause we believe unrivaled in importance by that of any other fraternity in the land. We shall strive to do our whole duty, and hand in hand, we trust, with all good and true Patrons, do our work well and with ultimate success.

Yours in F. H. and C. with F.,
A. T. DEWEY,
Sec'y S. G. of Cal.

Magnolia Grange.

MESSRS. EDITORS:—Magnolia Grange held a special meeting January 26th and installed its officers. We are now ready to begin work for another year, with prospects for an increase in membership. We are out of debt and have money in the treasury. The change in our organ seems to give general satisfaction, and we feel that what was done was for the best interest of the Order.

The farmers in this section are not through seeding yet, and are beginning to feel the need of rain. Grain that is up is looking well. We have had some frost but no snow. Fraternally,
V. W. STILL.

A Secretary of Agriculture.

At the last session of the National Grange the following was adopted:

"We continue our demand that the Commissioner of Agriculture be made Secretary of Agriculture and a member of the President's Cabinet."

It is now fully 12 years since this question of elevating the Department of Agriculture was first taken up by the Grange, and during all these years it has continued to push the matter, keeping it before the people of our whole country and before our legislators in Congress. State and subordinate Granges have followed up the work, and little by little public sentiment in its favor has been created, prejudice and opposition have been overcome, until now it is an almost assured fact that the bill before Congress will become a law before adjournment, March 4th, and that this most important of all industries in our country will have the recognition in this direction that it has in several other countries.

No sooner is it conceded that this important forward step is to be taken than a number of candidates for the position of Secretary of Agriculture are in the field in different parts of the country. Now if by the unwritten laws and rules of politics there must be a change in the present efficient head of the Department of Agriculture, one of the most practical men ever in this place, being a farmer himself, one who has popularized the Department and made it of real value to agriculture, and one whom tens of thousands of farmers of all parties would like to see retained in the place—if a change must be made, have not the farmers in the great national farmers' organization, the Grange, that originated, stood by and carried forward to success the idea of having a Secretary of Agriculture, a fair claim, a just right to expect that a member of their organization shall be the first to fill the new position? In fact it would seem that other "aspirants" would gracefully withdraw in favor of a Patron of Husbandry for the position. Why should any one, however great his abilities otherwise, who has never even by becoming a member of the Grange, aided in this work, seek to "reap where he has not sown"?

All other things being equal, a Patron of Husbandry should first occupy a position that Patrons of Husbandry have made possible. The Grange numbers in its ranks thousands of the most intelligent, the most successful and the most advanced farmers of our country. In fact the Grange has developed the very talent and qualifications needed for this important position. The farmers ask and are expecting that this place shall be filled by a practical man from their own ranks, and that it shall not become simply a "place" for a professional politician.

That the members of the Grange generally take it for granted that a representative of this farmers' national organization shall first fill the place is shown by the prompt manner in which, in widely separated sections of the country, they have advanced the names of good men and true for the position.

Of these, three are prominent for their abilities, their past records and fitness for the position. Mentioned in the order in which their names have appeared in the public press, they are:

Ex-Governor Frederick Robie of Maine, an extensive farmer, college bred, one who for many years has represented his people in the Legislature, and who was twice elected to fill the Governor's chair. As a member of the Grange, he is now serving his eighth year as Master of the State Grange of Maine. The membership has more than doubled under his guidance, and to-day his State has the largest membership of any in the Union; a man of broad, national views, an officer in the Union army during the war, one every way qualified for the place.

J. H. Brigham of Ohio, an extensive farmer, coming up from the ranks; for ten years Master of the Ohio State Grange, president of the State Board of Agriculture, director of the State Experiment Station, the bill creating which he introduced and succeeded in passing while a member of the State Senate; a soldier of the Union who went out as a private and came back in command of his regiment; now at the head of the Grange organization, being Master of the National Grange; a man of broad, liberal views, few his equal, none his superior for the position. The Ohio State Grange unanimously indorsed him for the place at its last session.

J. J. Woodman of Michigan, a practical farmer and stock-grower, for 11 years a member of the Legislature, six years Speaker of the House, six years Master of the State Grange of Michigan, and six years at the head of the Grange in the United States as

Master of the National Grange; the organization being honored by his appointment by President Hayes as Commissioner to represent the agriculture of this country at the Paris Exposition. Unanimously recommended by the Michigan State Grange for the place at its last session.

These are the kind of men that the Grange is expecting that the Secretary of Agriculture will be selected from. They not only expect it, but feel their right to the claim. The farmers in the Grange in Canada some time ago succeeded in getting their laws changed so that the representative of agriculture becomes a "Minister of Agriculture," with a place in the Cabinet of the Governor-General, and the Hon. Chas. Drury, who has just been honored with the place, is a member of the Grange.

We would respectfully call the attention of President-elect Harrison to the fact that his grandfather had a Granger in his Cabinet. It was Postmaster-General Francis Granger of New York. The farmers of this country, being tillers of the soil, are not by trade cabinetmakers, but the million or more who are in the Grange urge their claim that the first Secretary of Agriculture under the law the Grange has brought about should be a member of their organization. Let Patrons everywhere use all honorable means to bring this about.—Mortimer Whitehead, Lect. N. G.

A Voice to Young Farmers.

There is frequent questioning on the part of brothers and sisters of the Grange why the young people are not more attracted to the farm and Grange, and we are glad to say there seems a growing disposition to make the Grange pleasing to attract young people and to allow them to introduce more social and literary exercises for their own enjoyment as well as for all the members.

That there is really more inducement for young people to join the Grange than old. Of this there is no doubt because that they have so many more years to receive instruction and enjoy the influence of the Order.

One difficulty is that young people, being strangers, seldom get interested in the first few meetings, and therefore consider the business a dull routine, and quit while there is a real mine of pleasure and benefit uncovered just a little ways before them. We therefore feel to thank Dr. L. F. Roush, for the following truthful words spoken for the encouragement of young farmers at the recent proceedings of the West Virginia State Grange:

And now to the young farmer I wish to speak words of encouragement, of high hope and expectation for the future. Do not too hastily leave the farm for the purpose of following a professional life or to hunt employment in the towns and cities. The life of the farmer is the most independent. The world of knowledge, power and influence is within your grasp, as well as the professional man, if you will only qualify yourselves to act well your part. Qualify yourselves—there lies everything. Position in society, political influence, are all yours if you will only prepare yourselves for the duties involved in position.

But you will ask the question, How are we to make this preparation? Our time is all taken up on the farm, and when we work hard we have little disposition for study or the improvement of the mind. So is the professional man's time taken up with his professional duties, but he must study. If not, he falls behind his professional brothers, and so you will fall behind your more energetic neighbor. Read while waiting for breakfast or dinner, on rainy days and in the winter-time. Take agricultural books and journals and read them. Practice what strikes you as being a good thing; prove all things; hold fast to all things good; join yourselves to a farmers' club or Grange organization; discuss questions relating to agriculture, and get yourselves interested in what relates to your own practical business. Don't let the foolish prejudice of your neighbor deter you from connecting yourself with a farmer's club, because herein lies one of the means of your advancement. You will learn to think and to speak in these organizations, besides the new ideas you will get from others by association. Every industry, trade or profession has its organizations, and so must you have yours, and you must not be apologists for belonging to the same. It is a credit to you to have membership in such organizations, and nothing but ignorance and prejudice will ever keep you from belonging. Organizations of this kind are not simply combinations against somebody else, and should not be looked at in this light, and are not, only by those who are ignorant of their objects. They are for your own mutual advancement and improvement.

It is no less important for our young woman to participate earnestly in improving themselves in thought and speech, and enjoy the social privileges and inspiring and elevating spirit of the Grange, one of the noblest of all human associations.

OREGON P. OF H. DEPARTMENT.

BRANCH OFFICE,
Turner, Oregon.I. L. HILLEARY, Corresponding Editor.
W. M. HILLEARY, Branch Agent.

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MRS. S. M. COOK, McMinnville, Yamhill County, Or.
J. C. JENNINGS, Junction City, Lane County, Or.

From Worthy Master Hayes.

The Granges of Oregon are not going to become dormant if Bro. Hayes can help it. He is using his best efforts to keep them at work and interested in the cause. In a letter to this office he says:

I am going to appoint a committee of ladies in each county, whose duty it will be to see that every Grange in their county has a lady committee to see that work is assigned to the sisters for every meeting. Pomona, Flora and Ceres should see that their important branches of the farm and home (the fruits, flowers and grains, with all their different varieties and culture) do not s'umber in ignorance, but keep pace with the age in which we live. In the fall let each Grange hold a fair and exhibit the products of the members. The sisters might exhibit fruits, flowers and grains, needlework, penwork and composition, and many other things that their inventive minds could suggest. This will make the occasion both instructive and enterprising. Let the parents offer a premium for the best declamation to the boys and girls who belong to the Grange, and a premium for the best pies, cakes and bread made by any sister under say 16 years of age; to the boys for the best lecture upon finance, etc. You see my idea. What do you think of it? Please send suggestions.

We wish to call the attention of the California sisters to the good suggestions in the above, thinking that they might enter into pleasant rivalry with the Oregon sisters.

Salem Grange.

Salem Grange met in regular session on the third Saturday of January, Worthy Master T. L. Davidson in the chair. The attendance was good, and the meeting of more than usual interest. Salem Grange has dressed itself out in "brand splinter new" regalia, which gives a decidedly "tony" air to the Grange. Now we do away with the old-style brown-and-white sash regalia, and each appears in a neat blue-satin, gilt-adorned badge.

Salem Grange concurred in the resolutions adopted by Juniper Grange, No. 212, of Eastern Oregon, with a few exceptions.

Past State Master R. P. Boise discussed at length the Railroad Commission bill, advocating, in strongest terms, its continuance. It was still further discussed by Bros. Waggoner, Smith, Genn and others.

A second discussion upon the Australian ballot system was replete with interest.

The discussion on precinct assessors by

J. P. Robertson, Waggoner and Stump was quite breezy.

A change proposed in the road law by Juniper Grange was most thoroughly agitated, and was vetoed. The resolution favoring the homestead law of exemption to the amount of \$2000 was warmly discussed and adopted. The following resolution was also adopted:

Resolved, That we favor the bill introduced by J. B. Waldo in the present House of Representatives to repeal the section of the Revised Statutes of this State providing for the punishment of persons who receive bribes for voting at elections, as it will expose to prosecution persons who are guilty of bribing.

Also the following by Bro. Wisner of Polk county:

Resolved, That this Grange petition the Legislature to pass a law exempting only \$2000 from taxation on account of debt.

Moved by Bro. Boise to amend by striking out \$2000 and allow no exemption, and was adopted. A motion was carried to meet again on fourth Saturday of January at 1 P. M. for the purpose of furthering legislative reform.

Mount Holly Grange.

MESSRS. EDITORS:—Inclosed find the sum of \$2 on account of subscription.

I wish, brothers, you would talk up in your Granges the subject of the change of school-books by vote of county superintendents. We have just had a change of 20 or more of the books used in the public schools of this State, which is no doubt a very useless drain on the pockets of the parents, who have none too much money to spare; and a bad feature is, we cannot tell, as they are sealed ballots, which superintendent is under the thumb of Ivison & Blakeman, and which is not. Now, could the matter of a change be put to the vote of the directors of each district, the publishers would not have enough influence to go around, as there would be too many for it to pay any big thing.

I would like some brother or sister to give us what information he or she can about the query-box in the Grange. Yours in fraternal friendship,

Isabel, Jan. 19.

[Will some of our readers who have the means of investigating this subject inform Bro. Bradford and others through our columns concerning this matter and the best remedies possible for the evils suffered?—EDS.]

Grain Sacks.

An Oregon brother wishes to know where grain sacks are manufactured. Most of the grain sacks sold in this market are manufactured in India, or in Scotland from jute grown in India. The California State Prison has a large bag manufacturing plant, which runs night and day, but the sacks manufactured there do not get very far away from home before they are put to use. It is safe to say that the farmers of Oregon never see them. There is also a manufactory in Oakland, Cal., but its product is also quickly seized upon by the California farmers.

STATE MASTER HAYES was in attendance upon the Farmers' Congress, which was in session the 14th and 15th in Salem. Past Master R. P. Boise was also among the speakers. Though the Congress may be the means of giving "light" to a few, we cannot but think that were the same energy spent within the Grange and for the same object, much more good might result. Farmers cannot expect to accomplish ends if, before they are ready, they allow the shark equal chances with themselves. Lay the wires, formulate and be ready before giving to the public your plans. The Grange, with its age and experience, certainly should have the confidence of this little body of reformers.

THE PRESS generally of Oregon expresses its contempt for the outrage perpetrated upon the people of Oregon on the schoolbook question. It is to be hoped the present Legislature will take steps to protect the people and prevent a repetition of such rascality.

BRO. FRANK M. KRUSE, Secretary of Tualatin Grange, writes that Bro. H. E. Hayes was chosen to install their officers January 26th, in the afternoon. The installation was public.

The Eastern Oregon Granges.

MESSRS. EDITORS:—Eastern Oregon is holding its reputation for mild winters. So far we have had a pleasant season. The prospect for a good crop is fine. Times are good and the country in general is prosperous. The Patrons of Husbandry are working slowly, but always gaining ground.

It has been my pleasure to visit Cold Spring Grange. At their last meeting, on January 4th, they initiated seven new members. I note a great deal of progress since my former visit. They will install their officers January 25th and enjoy the pleasures of a grand dinner.

On the 12th, I spent the evening with Vansycle Grange. They have increased from 17 to 28 members. They initiated one brother that evening. They have extended invitations to neighboring Granges to be present on January 29th to assist in partaking of a good dinner and witness the installation of their officers. May success be theirs.

Juniper Grange is not left in the race. We will initiate four new members at the next meeting, on January 24th, and the sisters, "bless them," have concluded to prepare a fine dinner.

I go up to Eureka Grange on the 19th to assist in installing its officers. I hear they have made a success of their Grange, and why should they not?

In order to maintain our position in the affairs of the nation, we must come to some understanding; we must talk together, work together, and demand that justice shall be done to the patient tillers of the soil. Our work is great and demands the attention of all men engaged in agriculture. Ours is a common cause. To bring relief to our class, we must have laws enacted that will destroy the power of men to form trusts or otherwise to arbitrarily control the markets of the country to the detriment of the productive industries.

We have made a good start among the P. of H. in Oregon this winter. The resolutions that have been adopted by the Hillsboro Grange are a move in the right course. They embrace a great many things of interest to the State at large.

Unless the farmers take a hand in the way of bettering their condition, how can they expect relief? Experience has taught us that men will take advantage of every opportunity to enhance the value and corner the markets of the world so as to replenish their own coffers, no matter if it should rob the widow and orphans and create suffering among their fellow-men. To deal with that class and prevent others from following their course, we must provide laws that will insure relief to the toiling millions.

Our revenue laws must be changed. All classes should bear their share in the financial aid to our State and Government. The different resolutions that the Grangers of Oregon have prepared must be placed before the Legislature. The resolutions that the County Grange of Umatilla has had printed and forwarded to every member of the Legislature, and all other plans asking for aid, not alone for the farmers, but the laboring class in general, will have their influence; and if the farmers would use the power they have in their own hands, they would see that no man was sent to the Legislature who was not willing to give justice to all. I send for publication the resolutions adopted by the Umatilla County Grange.

Helix, Jan. 14.

Barlow Gate Grange.

MESSRS. EDITORS:—Barlow Gate Grange is situated about 30 miles south of The Dalles in a fertile part of the county, and consequently the land has been settled with a hardy set of old practical farmers and their families. Since its first settlement, we have been blessed with our little country stores that have succeeded in getting the most of our hard earnings; but, through the help of Bro. H. E. Hayes, we are fast achieving our independence and taking higher grounds in our thoughts and our aims, feeling that we, as producers, have the God-given right to enjoy at least some of our earnings.

We are putting forth earnest endeavors to make our Grange second to none in this State. We were most fortunate in securing a good set of officers in our first organization, with Bro. End as Master and Bro. Swift as Overseer; and our Secretary and Treasurer were as true as steel to the interest of the Grange. Our little Grange has stood the sneers and the thunderbolts of the lawyers, speculators and moneyed sharks, and to-day we are out of all danger from external foes, and with the present good feeling in the Grange, we are in no danger of internal decay.

Barlow Gate Grange has experienced a good degree of prosperity. During the last

few months we have taken in new members at almost every meeting, and at our next regular meeting we have seven to initiate, and more are coming. It looks now as if we shall soon clear this part of the field. Our present officers, M. Wing, Master; A. I. Swift, Overseer; E. N. Chandler, Treasurer; Mrs. E. N. Chandler, Secretary, are true to their part of the Grange work. In this Grange, and perhaps some other Granges, there is a backwardness in speaking for the good of the Order. This is the life of the Grange. It gives the Lecturer much assistance and the members an opportunity to express their thoughts in public.

Wamic, Jan. 20.

B. F. BONNEY.

Marion County Pomona Grange.

The Pomona Grange resolution, to request the Governor to appoint only educated and practical farmers to fill vacancies in the Board of Regents in the State Agricultural College, goes to the merits of the question, and is the only way to accomplish the creation of a distinctively farmers' board. Of course we need not know what vacancies will occur to reach that conclusion. Probably vacancies occur annually, and always to put a farmer in the place must in a few years create a board of farmers. The Governor does not need to be told that there are many well-educated and competent farmers. He can find, literally speaking, hundreds of good men, prosperous in their own affairs and competent to manage this institution. With a Board of Regents made up of Oregon farmers, the college will command the respect of agriculturists, and farmers' sons will attend there by hundreds. It must be made a popular educator, and enlighten the rising generation of farmers as to the various forces in nature on which their success as farmers will depend.—Oregonian.

Oak Plain Grange.

MESSRS. EDITORS:—Grange met January 12th in its hall. The regular routine of business being disposed of, a recess was taken for dinner, which every one seemed to enjoy. After the sumptuous feast, the Grange was called to order, and Bro. J. H. Scott, W. M. of Tangent Grange, proceeded to publicly install the officers for the ensuing year, assisted by Bro. P. Cochran of Tangent Grange and Sister S. J. Cornett of Oak Plain.

We had a good attendance, and there is a good interest taken in the Grange work. We restored one old member and conferred the Second Degree on a class of two—a brother and a sister—with prospects for more new members soon. Yours fraternally,

Shedd, Jan. 12.

JONAS DAVIS.

Grange Elections.

EVENING STAR.—A. F. Miller, M.; William Kerns, O.; Gus Patterson, L.; Mrs. E. A. Kelly, S.; Bro. Hall, A. S.; Thomas Howitt, C.; Plympton Kelly, T.; Mrs. Mary Wills, Sec.; John Hirt, G.; J. Johnson, P.; Mrs. Mary Howitt, F.; Miss Rosa Lent, C.; Miss Lily Wills, L. A. S.

GRAND PRAIRIE.—A. J. Zamwalt, M.; Milard G. Flint, O.; A. C. Jennings, L.; Edgar W. Zamwalt, S.; Robt S. Poole, A. S.; I. W. Bond, C.; A. E. Jennings, T.; J. C. Jennings, Sec.; Allen Bond, G. K.; L. M. Zamwalt, P.; Rachel Bond, F.; Martha Smith, Ceres; Helen Bruce, L. A. S.; Hynson Smyth, Allen Bond, J. C. Jennings, Delegates to Pomona; A. J. Zamwalt, A. C. Jennings, Hynson Smyth, Linn County Council.

LIBERTY.—E. Pitman, M.; E. W. Trout, O.; W. A. Hanna, L.; J. J. Woolery, Sec.; Geo. Bolton, A. S.; J. H. Trout, C.; A. D. Bolton, T.; P. P. Underwood, S.; Geo. Rice, G. K.; Laura Trout, P.; Elsie Hanna, F.; Lydia Woolery, C.; Annie Stirnweis, L. A. S.

MOUNT ZION.—Eli Williams, M.; W. H. H. Wade, O.; W. T. Lion, L.; J. O. Linn, S.; Robert Currin, A. S.; L. Hale, C.; Mrs. E. A. Manson, T.; F. J. Harkenrider, Sec.; Geo. E. Linn, G. K.; Miss Esther Williams, P.; Miss Mary Linn, F.; Mrs. Mattie Wade, Ceres; Miss Frankie Currin, L. A. S.

OAK PLAIN.—R. H. Wright, M.; J. B. Cornett, O.; J. Davis, L.; B. Johnson, S.; T. B. Springer, A. S.; John Barton, C.; John Duncan, T.; C. J. Shedd, Sec.; H. B. Springer, G. K.; Sister Dora Davis, P.; Izzie M. Springer, F.; Cora Davis, Ceres; Addis Fletcher, L. A. S.

TUALATIN.—Sister S. L. Hayer, M.; J. L. Kruse, O.; Geo. C. Day, L.; R. V. Short, S.; Fred Elngsen, A. S.; Sister N. E. Turner, C.; T. L. Turner, T.; Sister A. E. Downing, Sec.; Frank M. Kruse, G. K.; Miss Ola Barnes, P.; Miss Ella Turner, F.; Miss Allie Hayes, Ceres; Miss Bada Sharp, L. A. S.

CAPE HORN GRANGE.—Bro. J. O. Wing installed the officers of Cape Horn Grange January 19th. While there, he induced them to subscribe for the Patron for their Lecturer.

LIBERTY GRANGE meets at 10 A. M. the first Saturday in each month.

Address of G. B. Cornelius at Turner Grange Installation.

Worthy Master, Ladies and Gentlemen:—If I am not mistaken, the notice I received some time since was an official one signed by your Worthy Secretary, and hence was accepted as doubly complimentary, for which you will please accept my sincere thanks.

The impressive exercises of installation day bring with them many pleasant recollections of "happy days gone by." New friendships are made and old ones renewed. The old and new rejoice together and congratulate each other in the triumphs through the stormy past, and sympathize with each other on account of reverses, if any. Happiness being the summing up of all the ordinances of our nature, let us inquire for a moment how to invest to insure the desired result.

It has been said that intellectual and moral excellence is the great cause and condition of happiness. Our fine school system in Oregon furnishes ample opportunity for the youth to become fitted for any occupation. Then higher institutions have been established in different localities to furnish those who desire higher education. We should do all in our power to encourage and support these schools. No special legislation should be granted to any. I mean such special laws as the granting life certificates to those who happen to be educated in certain schools and denying them to others. This unjust law should be repealed. Special legislation is not necessary to build up meritorious institutions of learning. Every honest man and woman should down this fraud perpetrated by careless lawmakers.

This Monmouth or Normal School is not superior to other good schools like the State University, Willamette University, or even the Portland High School.

We represent here the industrial classes. Those who live without useful occupation should be despised, not honored. The industrious are nature's aristocracy.

What is needed is the union of effort and kindred souls, supported by enlightened, honest motives. What we ask of State or National legislators will then be granted.

We must honor our profession, and be interested in one another, and hurl existing evil from its throne, and establish the necessary laws for our protection and advancement. At the same time encourage every industry calculated to build up our country.

Contrast our situation with business ventures in railroads, mills, and manufactories of different kinds. Only one road in our State exists completed without having been placed in the hands of a receiver. Look at some of those fine flouring-mills go down with a crash. Gigantic brick blocks go under the salesman's hammer, while comparatively few farms have been so disposed of.

The Farmers' Congress.

The address issued by the Executive Committee is so full of visionary fears as to make it worthless. There has never been a brighter future in the world's history for the producer than now. One stroke at the producers' industries last November was repelled with such vigor and promptness that all mankind of every clime paid tributes of honor to the producers and the American industries without regard to party.

This Congress complains of unjust taxation to farmers. How is it? About one-fourth of the true value of our farms is assessed. Marion county was put down by the assessor at a little over \$6,000,000, and the Equalizing Board reduced it one-fourth, leaving the amount in round numbers at \$4,000,000. The real value of Marion county is not less than \$25,000,000. While moneyed men escaped, no doubt, farmers also escaped taxation. The large and flourishing cities so deplored by this so-called Congress should cause us no fear, but rather encourage us, in that our country is in a prosperous and healthy state. Those huge brick walls and mansions bespeak better times for us. Those railroads are necessary to develop new and otherwise waste and desert lands. All we desire is reasonable rates, and that is wisely provided for in the creation of railroad commissions. Our State has saved nearly \$1,000,000 already under its operations.

All admit that Oregon is now ably and honestly represented at Washington. No other State in the Union has received more attention than ours. Those large appropriations granted show plainly the powerful influence this trio exerts in securing ample means for the improvement of our rivers and harbors. And now let us tell them in a fair and honest way what legislation we desire as farmers.

How shall we keep up our soil? Keep plenty of stock on the farm. No need of land in Oregon being impoverished. One of the most beautiful instances of the principles of economy in nature is found in the principle

stated in physiology, that animals imbibe oxygen from the atmosphere and return carbonic acid to it, and that vegetables imbibe carbon and give off oxygen. Hence a given piece of land, tilled in the best possible manner, if enriched only from the cast-off portion of its own products, will support human life and yet become richer and more productive forever.

I know of land 40 years old that is as full of life as the newest land, kept up by a similar process, but mainly by stock sheep and turning under vegetation. By adding a thin dressing of manure from decayed stacks and contents of stables, it is doubly productive. This talk of "worn-out land" seems to me to be foolish.

Our world was not created yesterday, and will not grow old or be destroyed to-morrow. Those exhaustless stores found in nature, capable of being converted into vegetable and animal life, were not created in vain and will not be destroyed, but, during countless generations to come, will go on to augment the earth's fertility and minister to human need. By wise and judicious management, nature is assisted. Rotation of crops and thorough pasturing are the rule. Let every variety of vegetable and animal food be raised. Poultry, swine, cattle, sheep, turkeys, and, in many places, ducks and geese, are profitable. Why, let me tell you, eggs from Iowa and other places East, in large quantities, were shipped to Portland and other cities. Dealers reboxed a lot of those stale eggs and sold them for Oregon fresh eggs in Portland. I saw Eastern turkeys that had been dressed about one month. They looked blue with age. Yet those stale things were sold and eaten in Portland Christmas. Let that committee address our producers and tell them to supply our own markets with food fit to eat.

I don't care if cities grow at the rate of 500,000 a year; we could feed every one. I want them millionaires at that, so we can get some of their money in exchange for wholesome food, and manufactures at same rate, so every article of clothing, machinery of every kind and grade, could be manufactured at home. We have the natural advantages for thousands of machine-shops propelled by water—the cheapest power known to man—18,000,000 pounds of wool to start on, and in two years could have 36,000,000, since we can rest assured that foreign competition cannot hurt us. We cannot afford to raise so much wheat. Let us raise more stock—paying stock, such as can be converted into food and money—with a thousand other articles shipped to us now. Exporting money doesn't pay.

Tangent Grange.

MESSRS. EDITORS:—I will again try and give you a few words of encouragement from Tangent Grange. We are still alive and in good working order. We own our hall and the land on which it stands; have a goodly number of earnest members who are always ready to put their shoulders to the wheel and push forward whenever necessity requires.

We know for a certainty that the Grange is of vast interest to us, for at the last meeting of the Linn County Council the worthy agent read his annual report, which was enough to satisfy any one of the importance of co-operation. Why so many good honest farmers stand aloof from the Grange is a mystery to me. They certainly can see that in union there is strength. Then why not join forces with us, and all march along to victory together? Come now, throw aside your skeptical ideas, bring your wives, sons and daughters, and join one of the best social, educational and financial Orders ever known to exist.

The education obtained from the Grange is of more benefit to any one than twice the expense and time lost in attending the meetings. Socially, it is a grand success; for there we meet with brothers and sisters from all parts of the country, exchange greetings, spend the day in the best of society, go home in the evening feeling that the time has been well spent.

The Grange is becoming stronger all the time, the numbers are increasing, and its influence is bound to be felt more in the future than it has been in the past. Hold out faithfully and we are bound to succeed.

Tangent, Jan. 18.

J. H. S.

"WHEAT IS KING."—In point of value of the product, the leading industry of Portland is flour and feed, there having been ground nearly 3,500,000 during 1888. The value of the product for 1888 is \$3,357,662; number of men employed, 169. Portland now classes herself among manufacturing cities, her output value for 1888 being nearly \$14,000,000, an increase of 78 per cent over the previous year.

The Silver Question.

Worthy Master H. E. Hayes of Oregon, in a letter to this office, touches upon the silver question as follows:

I see John Sherman has presented a memorial of the National Board of Trade, held in Boston, to Congress asking for the suspension of the coining of silver dollars. Was Cleveland a Democrat or a Republican when he asked for the same thing? Farmers and laborers have parties; wealthy capitalists have none. Grangers better be up and doing, or their effects will be lowered in value one-third again by such financiers as Senator Sherman and Mr. Cleveland. One more Eastern syndicate plot in the financial affairs of our country, and President Lincoln's prophecy will be fulfilled: "All of liberty will be lost, and moneyed aristocracy will reign supreme." Many times it is difficult to get a \$20 piece changed now, and to make it any worse by stopping the coining of silver would be suicidal to the people. Let us have free coinage of our precious metals and do away with the present national banking system, and re-establish the Government of our fathers in the place of the Wall-street, English, money-gambling institution we have had for the last 22 years. Then the tiller of the soil will own the land, and not the bankers and the nobility of England or the syndicates of Germany, as at present.

Fruit Outlook.

A recent article in the *Oregonian* shows the Oregon nurseries to have grown nearly 5,000,000 of trees in 1888, and of these at least 3,000,000 will be planted out. It is only within the last few years that Oregonians have paid special attention to this branch of agriculture. It is now beginning to leave its impress on trade. Oregon dried fruits, especially prunes, have made for themselves a name in the world's market. The apple crop for 1888 was immense, but the ravages of the codlin-moth destroyed a great part of the crop. There is no doubt that Oregon needs a Horticultural Commission such as exists in California. The codlin-moth destroys both pears and apples, and it is necessary that the State help stay the ravages of this pest of the orchard.

The sales of Oregon green fruit in Portland in 1888 aggregated \$300,000, most of it going to the Sound markets and the Inland Empire. Much of the fruit of Southern Oregon finds a market in California.

Grange Movements.

The Grange does not regard the farmer as a mere machine, a mere drudge. It looks upon him as a reasonable, responsible being and seeks to elevate and improve him. It stretches over him the shield of its protection against the enemies that assail him and seek to rob him of the reward of his industry. It offers him the means of social enjoyment and teaches him the duty of healthful recreation and pleasure. It recognizes the right of woman to share the pleasures as well as the cares of man, and secures her pure and ennobling influence and co-operation in its work; and it teaches the lesson that the most intelligent and thoughtful farmer is sure to be the most successful.

In short, the Grange seeks to make better farmers of the agricultural class. "It claims no authority to coerce them into any course of action, no right to command. It is merely an advisory body, and it seeks the improvement of its members only by its moral power. It is to the farmer a wise and judicious friend." MRS. MARY HOWD.

The Agricultural College.

The following has been extensively circulated and signed by the farmers of Marion county and forwarded to His Excellency, the Governor:

WHEREAS, In the past 18 years and with an expenditure of \$75,000 of State funds, Corvallis Agricultural College has not done anything in practical agriculture; and

Whereas, There never has been a majority of its Board of Regents that were practical farmers, earnestly desirous of having practical agriculture taught; and

Whereas, We believe that the material interests of the great State of Oregon demand a greater proficiency in the science and practice of agriculture;

Therefore, we, the farmers of Oregon, earnestly petition His Excellency, the Governor of the State of Oregon, to appoint none but practical farmers to vacancies on the Board of Regents for the Agricultural College, until a majority of said board is composed of practical farmers.

It is the general sentiment of the people that the present Legislature is one "put up favoring capital," and little favoring the people may be expected from it.

The Grange is What We Make It.

What would you think of a farmer who would say in early spring when the ground gets dry and warm that he had not time to sow his fields; that it would be time enough; or let others do it, that he was too hurried to attend to it? Would you not tell him to tie a wet cloth around his head; that unless he did it himself while he was able, no one would do it for him, and that he would be poor and hungry before long, and some one else would soon own the farm? So it is with the Grange. It will be what we make it. It is our own field, and will yield fruits just as it is used, and no field, even the most fertile on our planet, will yield a more bountiful harvest if tilled properly and in season; but we must be early, be in earnest, and have confidence, and then it will be a success. Come early to the meetings, give encouragement and assistance in every department, have faith in ourselves, for we are told that strong faith will move mountains, but the same author says that faith must be accompanied by good works, which always insure success.—*Toronto Grange Bulletin.*

PENNSYLVANIA PATRONS.—The *Harrisburg Telegraph* has this to say about the Grangers who met in State convention in that city lately: "You had an idea that the Granger was a hayseed, didn't you? Well, you are away off, you are. If you had seen the Grangers, and their wives and daughters and other female relatives, in Harrisburg this week, you would have dropped to the conclusion that they are far, far from being hayseeds. A more intelligent body of men and women I never saw assembled for business in Harrisburg. They dressed well—many of the charming ladies in sealskins and silks—and they talked well, and in their discussions they showed a knowledge of current events, politics, public doings, literature, art, etc., to say nothing of farming, that you will never find in a body of mere politicians. The happy, healthy people with bright eyes, proud bearing, and erect, vigorous walk, are the salt of the earth, so far as Pennsylvania is concerned. There isn't the sign of a fly on the Grangers. They are not built that way. They are wide-awake, keen-eyed, strong-limbed and hearty, and they know what's what."

IMMIGRATION.—Secretary Struble of the Oregon State Board of Immigration has furnished the *Oregonian* with the summary of the volume of immigration for the year 1888. The total influx for the year is 96,850, the distribution of which has been very general. Register Burney of the Oregon City Land Office reports the business of his office for 1888 as nearly three times greater than ever before in its history. In the Willamette valley and Southern Oregon, the spirit of activity is such that an approaching boom seems inevitable. Jackson and Josephine have nearly doubled their population during the year. It is thought the immigration of 1889 will double that of the past year.

OREGON SCHOOLS.—From State Superintendent E. B. McElroy's report of the school system of our State we find that Oregon's special institutions established and supported by the same include the State University at Eugene City, State Agricultural College at Corvallis, State Normal Schools at Ashland, Drains, Monmouth and Weston, School for the Blind at Salem, School for the Deaf and Dumb at Salem, Orphans' Home at Salem, Orphans' Home at Portland. The total of private schools, academies, colleges and universities nears 50, or thereabout. The number of organized districts in the State in the year 1888 was 1556; number of children enrolled in the public schools, 55,402; number of teachers employed in public schools for the year 1888, 2343.

BRO. B. F. BONNEY of Barlow Gate Grange has joined the list of contributors to our organ. In another column will be found an entertaining letter from him. We hope he will write often, and that other brothers and sisters will follow the good example set and contribute to the entertainment of their fellow-members through the columns of our paper.

A BROTHER asks why a co-operative life insurance is not introduced in the Grange somewhere on this coast. He says the Patrons' Aid Societies are successful in other States.

THE *Inter-Ocean* publishes a map of Dakota showing that within its limits, on the same scale, can be placed the States of Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New Jersey, Indiana and South Carolina, and still have a great many unfilled nooks and corners. South Dakota alone would be twice the size of Ohio.

Sound Advice to Patrons.

The Worthy Master of the Colorado State Grange, Bro. Levi Booth, delivered an able address at their last session, from which we make the following extracts:

We must still urge Congress to pass laws for the better protection of our present forests. The timber upon our mountains serves as reservoirs which hold back our deep snows, causing them to melt slowly under the summer's heat, thus giving us the waters in our mountain streams gradually as we need them for irrigation, as well as, in a great measure, preventing the destructive floods that so frequently devastate our fertile valleys.

We must also in every manner encourage the planting of forest trees, as the extensive growth of forests will eventually bring about those climatic changes so much to be desired on our present arid plains. If the rain belt is ever extended, it will only be accomplished by the exclusive growth of forests upon the borders of those belts where forests can now be grown.

Political Counsel.

We must still labor for a law providing for an amendment to our National Constitution so that our U. S. Senators may be elected by the direct vote of the people. The present practices of our ward bummers and our political hacks should be stopped at once. The money of political aspirants should no longer be allowed to control the election of State legislators. Corrupt corporations pay enormous fees to the brightest and most unprincipled attorneys in our land, and then, with their ill-gotten gains, elect them to our National Congress to pass laws, not for the benefit of the people, but for their own aggrandizement.

The common voter is made to believe that he must vote for the candidates placed upon his party ticket because they are pledged to carry out the principles of his party, when in fact the candidates were placed upon their tickets for the reason that they would favor the interests of combinations and trusts and would work against the interests of the voters who elected them. Intelligence, honesty and virtue are no longer necessary qualifications to entitle a candidate to the suffrages of our citizens.

The only questions are: "How much money did they furnish in order to secure our election? How much dirty work did they do for our party, and how much boodle will they furnish in the future? The people be damned; we are looking after our own interests and the interests of our clients, the gigantic corporations, our masters." These are the sentiments of a majority of the office-holders of to-day.

Again, we should do away with our present farce, the Electoral College. Let the people cast their franchises directly for the man they wish for President and Vice-President, the same as they should for every other officer whom they elect.

Trusts.

Any and all combinations of men and capital calculated to destroy full competition in the manufacture and sale of any commodity should by law be severely punished; and such combinations should be disbanded, for the reason that they are doing that which is against public policy.

The ultimate success of any and all classes of industry depends upon a free and unobstructed competition. Supply and demand should fix the value of an article; but where trusts are allowed to exist, supply and demand have nothing to do with the market values. It is the sweet will of the man appointed by this trust that says what the buyer shall pay and the seller shall charge.

Gambling in the necessities of life, such a business as is being carried on in all our mercantile exchanges, should be prohibited by law, as such practices tend to enhance the value of products to the consumer, while it depreciates it in the hands of the producer.

Usury.

We must work for the passage of a usury law, such as will protect the one who has to borrow from the greedy Shylocks who ever exact the "pound of flesh" from their victims. Six per cent a year is all that any farmer can afford to pay, and it is all the money-loaner ought to receive, and he who seeks to exact more should forfeit principal with interest.

Railroads.

I cannot close this address without again calling your attention to the present system of railroad management. We must have a Railroad Commission established in our State; and such commission must have the power to compel our transportation companies to charge fair and just rates and to serve all alike. The rich and the poor, the

wage-worker and the merchant, the tourist and the business man, should be treated alike. We demand that there shall be no discrimination between persons or localities either in freight or passenger rates. This we demand not only for the benefit of the patrons of our roads, but for the good of the companies themselves. Fairness and honesty will win with corporations as well as with individuals, and if railroad officials will not act honestly and uprightly, it is our duty to compel them to so act.

Wisconsin State Grange.

The seventeenth annual session of the Wisconsin State Grange convened at Madison on the 11th ult., and lasted four days. All the officers were present, and a profitable session was held. From a copy of the proceedings of this session, kindly sent us by the Worthy Secretary, Bro. H. E. Huxley, we extract the following paragraph from the address of Worthy Master S. C. Carr, referring to election reform, which is pertinent to the discussion on this subject now taking place in the Granges and press of our State:

We are in favor of a constitutional amendment changing the election of United States Senators to a direct vote of the people. It is an outrage upon good society to know of the rings and cliques that are formed, and bottles of champagne emptied during the election of a Senator by the Legislatures. We are also in favor of doing away with the long and cumbersome process of electing a President by presidential electors. Why not come right down to business and vote direct for whom you want? And then also the presidential term should be lengthened to six years instead of four, and not be eligible to re-election. As it now is, the business of the country is unsettled every four years, and we believe such a change would greatly benefit the masses of the people. The election of postmasters by a direct vote of the people interested would give every voter in the country the right to say by ballot who should handle his mail. The way it now stands, nine-tenths of the patrons of an office may petition for the appointment of some desirable person for postmaster, and it has no weight whatever in governing the appointment if half a dozen politicians who stand solid with the administration sign another petition.

Bags, Jute, and Tariff.

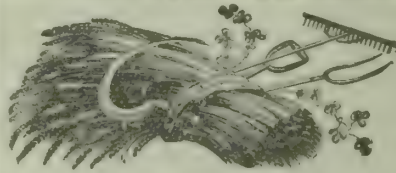
MESSES EDITORS:—I saw an article in the *Patron* a short time ago, in which the author, J. D. Huffman of Lodi, shows some anxiety about the price of bags. Well, I do not wonder at it. He has done his level best to keep up the outrageous high tariff on jute, and now he kicks about the price of bags, and wants the State Prison Directors to help him out of the difficulty, and in case of a failure there, he proposes to ask the Legislature for relief. Now the brother is on the wrong track. The first thing he should do is to eat a big dose of crow, draw up a petition and ask his Republican friends in Congress to put jute on the free list; then he can, with some reason, ask the State to furnish bags at a cheaper rate. The Democratic Grangers have done all they could to have the people of this State get cheap tin, cheap lumber, coal, iron and jute. Our Republican brother Grangers have done all they could to prevent the above articles being put on the free list, and now they are squealing. The fact is, there is too much partisanship among Grangers for their own good, and if it were not that the innocent would have to suffer with the guilty, I would like to see those Grangers who voted against having jute, etc. placed on the free list cinched severely. A Granger who will vote and work against his own interests, and every other man, woman and child in the State, needs to take a new departure and do better. Now, Bro. Huffman, come on with your petition, and let us see what we can do for ourselves. Fraternally yours,

JOHN NORTHRUP.

INSURANCE TRUSTS.—Take them all in all, the people of this State who own property requiring insurance are about the most quiet to be found anywhere in submitting to be badly cinched. How long will they stand it? How best to rid themselves of the trusts should be the prime question for discussion in our Granges and reform meetings nowadays.

BRO. J. B. BAILEY, Master of the Mississippi State Grange, sends us a list of Patrons in his State to whom we might send sample copies of our paper. We have done so, and believe it is a good idea. We invite others to do the same, hoping that it might be the means of enlarging our influence in the Grange field, and thereby helping the cause throughout the Union. We invite Bro. Bailey to repeat the experiment from time to time.

GRANGE DIRECTORY.



POMONA GRANGES.

BUTTE MOUNTAIN (No. 4)—SUTTER AND YUBA COUNTIES—Fifth Saturday in March, June, September and December, fourth Saturday in May, at 1 P. M., in Masonic Hall, Yuba City. M., Geo. Ohleyer, Sr., Yuba City; Sec., Jas. B. Wilkie, Yuba City.

SACRAMENTO COUNTY (No. 2)—Fifth Saturday January, April, July, October, December, at 1 P. M., in Grangers' Hall, Sacramento; M., Morris Toomy; Sec., D. D. Hull, Sacramento.

SAN JOAQUIN COUNTY (No. 3)—Last Thursday February, May, August, third Thursday November, at Lodi Hall, Lodi, at 10 A. M. M., S. W. Sollars; Sec., J. D. Huffman, Lodi.

SONOMA COUNTY (No. 1)—Third Wednesday October, January, April, July, at 10 A. M., in Grangers' Hall, Santa Rosa. M., G. N. Whitaker, Santa Rosa; Sec., W. C. Crane, Santa Rosa.

SUBORDINATE GRANGES.

ALHAMBRA (No. 290)—First and third Saturdays at 2 P. M., in Grange Hall, Martinez; M., Dr. J. Strentzel, Martinez; Sec., Mrs. M. B. Lander, Martinez.

AMERICAN RIVER (No. 172)—Second and fourth Saturdays, at American River Grange Hall, from October 1st to April 1st, in the evening; from April 1st to October 1st, in the afternoon; M., Carl Halverson, Routiers; Sec., Mary Cox, Routiers.

ANTELOPE (No. 100)—First and third Saturdays at Antelope School-house, at 10 A. M. M., John D. S. Taylor, Sites; Sec., P. Peterson, Sites.

BENNETT VALLEY (No. 16)—First and third Saturdays, at 2 P. M., M., Wm. P. Crane, Santa Rosa; Sec., Miss Rhoda Whitaker, S. R.

BUENA VISTA (No. 258)—Second and fourth Saturdays, M., C. E. D. Wheatley; Sec., J. T. Morgan, Delano, Kern county.

DANVILLE (No. 50)—First and third Saturdays at 2 P. M., M., C. E. Howard, Danville; Sec., J. H. White, Danville.

EDEN (No. 100)—Second and fourth Saturdays at 2 P. M., in Parlor of Congregational Church, Haywards; M., Wm. C. Blackwood, Haywards; Sec., Josie Sharal, Haywards.

ELK GROVE (No. 86)—First and third Saturdays; M., James Caples, Elk Grove; Sec., Geo. Williamson, Elk Grove.

ELLIOTT (No. 183)—Second and fourth Saturdays at 2 P. M., in Odd Fellows' Hall, Elliott; M., H. H. West, Elliott; Sec., M. A. West, Elliott.

EUREKA (No. 238)—Fourth Saturday at 1 P. M., in Good Templar's Hall, Auburn. M., J. C. Burns; Sec., Annette Furth, Auburn, Placer county.

ENTERPRISE (No. 129)—First and third Saturdays, M., U. G. Wilson, Perkins; Sec., Etta Plummer, Perkins.

FLORIN (No. 130)—Second and fourth Saturdays, 2 P. M., M., Wm. Johnston; Sec., L. H. Fassett, Florin.

FRANKLIN (No. 147)—First Saturday at 2 P. M., M., Wm. Johnston; Sec., C. P. Freeman, Richland.

GALT (No. 180)—First and third Saturdays at 2 P. M., in Brewster Hall, M., Hiram Chase; Sec., A. B. Bryant, Galt.

GRAND ISLAND (No. 22)—Second and fourth Saturdays at 10 A. M., in Davis Hall, Sycamore. M., J. R. Totman, Colusa; Sec., E. G. Morton, Sycamore.

GRASS VALLEY (No. 256)—Every Saturday, at 7:30 P. M., M., S. L. Richards, Grass Valley; Sec., J. W. DeGolis, Grass Valley.

LINCOLN (No. 187)—Third Saturday at 2 P. M., in Grangers' Hall, Lincoln. M., Hollis Newton, Lincoln; Sec., A. J. Soule, Lincoln, Placer county.

LODI (No. 95)—First and third Wednesdays at 2 P. M., in Lodi Hall, M., S. Ferdun; Sec., J. D. Huffman, Lodi.

LUCERNE (No. 260)—Every Tuesday evening at 7:30, M., S. Walker; Sec., Henry Walker, Lemoore.

MAGNOLIA (No. 261)—Second Saturday at 10 A. M., at Magnolia Grange Hall, one mile north of Bear River, Nevada county. M., V. W. Still, Auburn; Sec., Wm. Cunningham, Auburn.

MARCH (No. 267)—Second Saturday at 2 P. M., at West Butte Hall, M., W. W. Wilbur, West Butte; Sec., Mrs. S. I. Noyes, West Butte.

MERCED (No. 7)—First Saturday at 10 A. M., in Pythian Castle Hall, M., W. E. Elliott, Merced; Sec., E. S. Elliott, Merced.

MONTEZUMA (No. 158)—First and third Saturdays at 1:30 P. M., Odd Fellows' Hall, Bird's Landing. M., T. T. Hooper; Sec., Miss E. Daniels, Bird's L.

NEWCASTLE—Meets on the second Saturday of each month at 2 P. M., at Penryn, Placer county. M., J. L. Robertson, Penryn; Sec., A. F. Hall, Penryn.

NORTH BUTTE—Meets the second and last Saturdays in each month, at Union Hall, Live Oak, at 1 P. M. M., L. D. Hedger, Live Oak; Sec., James Myers, Gridley.

PESCADERO—Meets first Saturday in each month, at Good Templars Hall, 2 P. M. M., L. C. Steele, Pescadero; Sec., M. A. Chandler, Pescadero.

PILOT HILL—Meets on Saturday, on or preceding the full moon in each month, at 7:30 P. M. M., C. S. Rogers, Greenwood; Sec., A. J. Snmpter, Pilot Hill.

PLACERVILLE—Meets every two weeks, on Saturday, at 1:30 P. M., at Odd Fellows' Hall, M., P. J. Isabel; Sec., J. P. Allen, Placerville.

PLUMAS—Meets on the Saturday next succeeding the full moon in each month, at 1 P. M. M., Wm. A. Sperry; Sec., M. C. Bringham, Beckwith.

PLYMOUTH—Meets second and fourth Saturdays in each month, M., J. F. Gregg, Plymouth; Sec., Miss Clara Saltee, Plymouth.

POINT OF TIMBER—Meets first and third Saturday in each month, at 2 P. M., at Brentwood, M., J. E. W. Carey, Brentwood; Sec., M. B. Skaggs, Brentwood.

POTTER VALLEY—Meets at 2 P. M., February 24, and every two weeks thereafter, M., Wm. Eddie, Potter Valley; Sec., W. V. Kibbourne, Potter Valley, Mendocino county.

ROSEVILLE—Meets on the first and third Saturdays of every month, M., E. L. Hawk; Sec., Mattie Leavell, Roseville.

SACRAMENTO—Meets the second and fourth Saturdays in each month, at 1:30 P. M., at Grangers' Hall, M., Joseph Sims, Sacramento; Sec., Wm. Sims, Grangers' Store, Sacramento.

SAN JOSE—Meets every Saturday of each month, at 10:30 A. M., at Grand Army Hall, First street, San Jose. M., O. F. Alley, San Jose; Sec., H. Brainard, San Jose.

SANTA ROSA (No. 17)—Second and fourth Saturdays at 1:30 P. M., M., E. A. Rogers, Santa Rosa; Sec., Miss Martha Lumsden, Santa Rosa.

SEBASTOPOL—Meets first and third Saturdays of each month, M., Martin Litchfield; Sec., Geo. Harris, Sebastopol.

SIERRA VALLEY—Meets every other week, M., N. N. Strang, Sierra Valley; Sec., A. E. Knerr, Etta.

SOUTH SUTTER—Meets fourth Saturday in each month, M., J. W. Jones, Pleasant Grove; Sec., Parthena E. Hall, Pleasant Grove.

STOCKTON—Meets every Saturday at 1 P. M. M., N. E. Alling, Stockton; Sec., N. T. Root, Stockton.

TEMESEAL—Meets the first Saturday in the month, at 7:30 P. M., in Odd Fellows' Hall, corner Eleventh and Franklin streets, Oakland, and the third Saturday, at 2 P. M., at the same place. M., S. Goodenough, Santa Clara; Sec., Mrs. Nellie G. Babcock, North Temescal.

TULARE—Meets first and third Saturdays of each month, at 2 P. M., at Goldman's Hall, Tulare. M., J. M. Moore; Sec., D. O. Harelson, Tulare.

TWO-ROCK—Meets the first Thursday of each month, at 1 P. M., M., Walter Church, Petaluma; Sec., J. C. Purvine, Petaluma.

VALLEY—Meets in Odd Fellows' Hall, Pacheco, second and fourth Saturday in each month, at 1:30 P. M. M., F. L. Loucks, Pacheco; Sec., E. A. Majors, Concord.

WALNUT CREEK—Meets second and fourth Saturdays in each month, M., C. Sharp, Walnut Creek; Sec., Miss Mary Baker, Walnut Creek.

WASHINGTON—Meets first and third Saturdays of each month, M., Reuben S. Pardo, Pomegranate, Amador Co.; Sec., Sam. C. Waters, Clements.

WATSONVILLE—Meets first and third Saturdays in each month, at 1 o'clock, P. M., M., Mrs. E. Z. Roche, Watsonville; Sec., Mrs. S. J. Kidder, Watsonville.

WEST SAN JOAQUIN—Meets first Saturday of each month, at 1 P. M., M., A. P. Stocking, Tracy; Sec., Jas. C. Allen, Tracy.

WHEATLAND—Meets first and third Saturdays in each month, in Odd Fellows' Hall, at 2 P. M., M., Frank Kishner, Wheatland; Sec., I. W. Huffaker, Wheatland.

WOODBRIDGE—Meets first and third Tuesday in each month, at 2 P. M., in Grangers' Hall, M., G. H. Ashley; Sec., B. G. Williams, Stockton.

YUBA CITY—Meets the first Saturday in each month, at Masonic Hall, Yuba City. M., J. B. Wilkie, Sec., Josie Walton, Yuba City.

Grange Trial Clubs.

We offer for the present to furnish the official Grange edition of the *RURAL PRESS* to Grange clubs of ten or more names paid in advance for SIXTY CENTS for THREE MONTHS. All Secretaries are invited to act at once in getting up trial club lists, and also for longer-term subscriptions. If no officer moves in this matter, any Patron will be empowered to act. Sample copies, when desired, will be sent free on application to this office.

To Old Subscribers of the California Patron.

We will send you the WEEKLY OFFICIAL GRANGE EDITION of the *RURAL PRESS* and the monthly issue of the *California Patron* both for one month, in order that you may examine and determine which of the two papers you prefer to have continued to you after that date, according to the terms plainly stated in our contract with the *California Patron* Publishing Co.

Choose, then, which paper you prefer to receive, and notify us by letter, giving your name and post-office address plainly and in full, with complete directions as to your wishes in the matter. During the trial month no charge will be made for the paper you do not choose to continue.

We hope many will take both issues, and with a view to give or send one away for the good the copies may do the readers, our cause and our State.

However, if no word is heard from any subscriber by the end of the first month, we shall continue the weekly Grange edition of the *RURAL PRESS*, as successor to the weekly issues of the *Patron*, and discontinue sending the monthly beyond a single issue.

The next issue of the *Patron*, and the first as a monthly publication, will be issued for Saturday, February 9th.

We hope (after receiving a few copies at least) to hear from our readers how they like this new Grange edition of the *RURAL PRESS*.

Saturday, February 9, 1889.

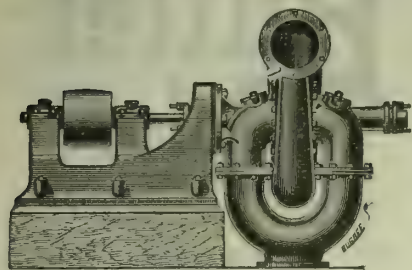
The above will be the date of the first issue of the *California Patron* as a monthly, at the reduced price of \$1 per annum. We intend to make it a large, handsome, and valuable sheet—especially to those who do not feel able or inclined to subscribe for a weekly agricultural and Grange paper.

We shall not specially urge subscribers to the *Rural Press* to take both issues, as some of the choice reading matter in the *Rural* weekly will be transferred to the monthly issue. Still there will be considerable Grange and other select reading which will appear in the *PATRON* only, and ample to justify the taking of both papers at the low rate they are offered in combination, viz., \$3 for the two for 12 months.

SAY "GRANGE EDITION" in ordering or corresponding about this edition of the *RURAL*.

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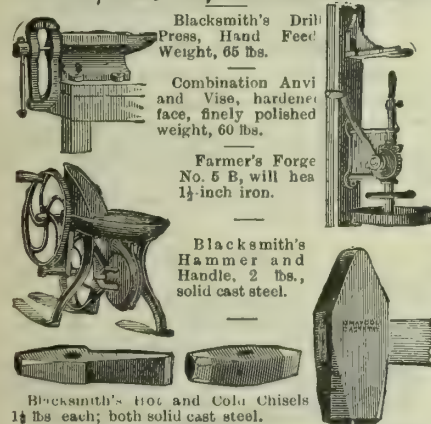
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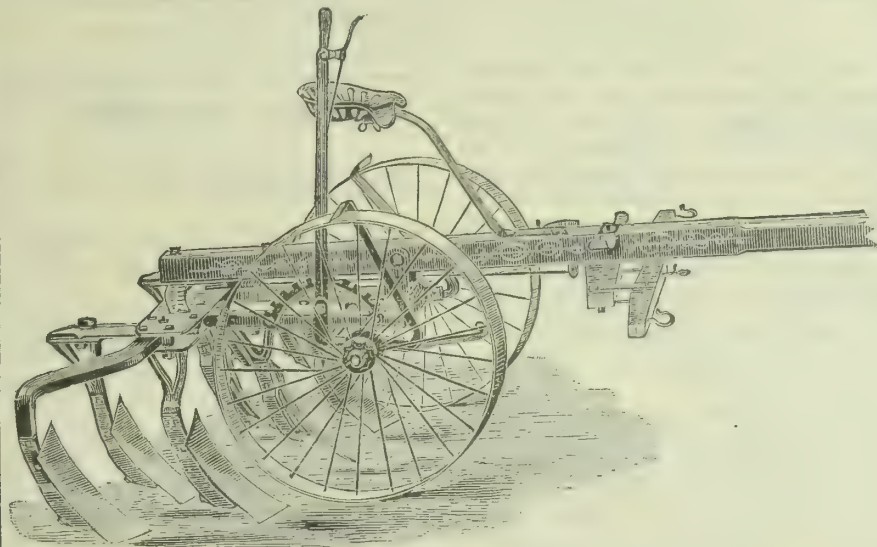
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We take pleasure in calling the attention of the Orchardists and Vineyardists of the Pacific slope to our NEW ORCHARD AND VINEYARD CULTIVATOR. The most complete and easily handled machine in existence. Weight, 335 pounds. The Cultivator is raised and lowered by means of a foot and hand lever, reducing the labor of handling to almost nothing.

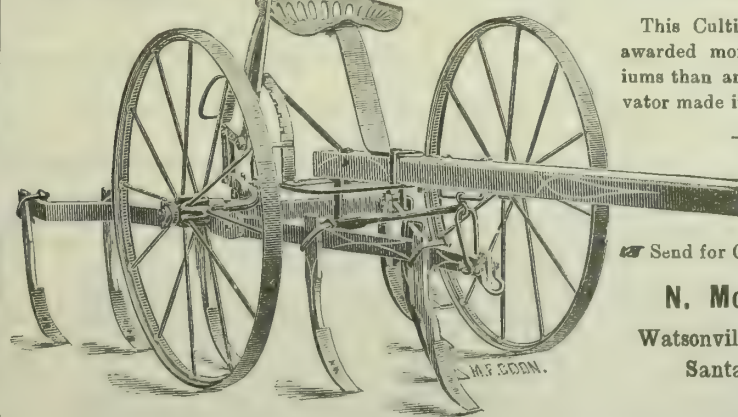
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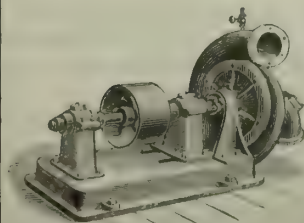
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THE STOCK YARD

California's Animal Interests.

From advance sheets of the forthcoming annual report of Hon. E. F. Smith, Secretary of the State Board of Agriculture, we take the following pertinent remarks concerning our live-stock interests:

One of the first and most staple interests is the breeding of all classes of live-stock in California, and the future promises exceptionally fine prospects.

The various improved breeds of horned stock here have such prominence that insures us the commercial standing given other States less favored with advantages, an impetus resulting exceedingly remunerative to the breeders of cattle.

The "breeding up" of cattle is an advantage that those interested are not slow to accept. The introduction and crossing of pure blood in all classes, with a view of improving the beef and milk qualities, is the constant study of successful breeders of cattle, and the increased herds of this character that are each season on exhibition at the State Fair is an example of what is being accomplished in this respect. It is a highly interesting part of the exhibition, and one that attracts the attention of all lovers of high bred stock.

With our large area of grazing lands we are in a better condition to breed on an extensive scale, not only cattle, but sheep, goats and swine, than are many of our sister States. But as new interests are now attracting the land-owners, the raising of sheep and swine has to some extent come to be neglected. Where formerly this interest was leading, it is now carried on by comparatively few.

The business of the breeding and raising of horses of all kinds, from the fleetly thoroughbred to the powerful Clyde, is on the increase, and is one of our most successful industries. There is money to be made in this business, as the farmer, who, by improved breeding, is enabled to sell his surplus stock at good prices, can readily substantiate, while those who make it a business complain not of the returns made each season.

In addition to the many staple classes of live-stock here bred, we are fast assuming the lead in the breeding of a class that is commanding the attention of all lovers of that noble animal—the thoroughbred—throughout the United States, thereby creating a market for an additional resource, for which, by reason of climate, we are especially adapted to produce.

The sales by public auction of this one breed of stock, in yearling form, for the season of 1888 in the United States amounted to \$520,230, there being 779 head sold for this sum, and they the get of but 122 stallions, showing an average of \$667.82—a grand result taking the number into consideration.

One of our principal breeders, taking advantage of the increased demand, sold about 70 head of yearling racing colts for \$112,000, at an average of about \$1600 per head—a phenomenal sale. This event will give California the standing she is entitled to in this important industry. These annual sales are a most desirable method, and one which has given Kentucky a world-renowned reputation as a breeding State, and they have already drawn attention to the produce of California by those who are desirous of obtaining the produce of our well-established breeding farms, where all can avail themselves of the blood that has proven successful on the turf.

The turf interest of this State is of some magnitude, and should be encouraged in every possible way. The breeding and sale of race-horses is as much of a resource as any other production, and by proper encouragement can be made valuable to our now prosperous State. This interest gave England a prominence that will last for ages. She is the parent of this most fashionable breed of animals. Kentucky was and is still the favored spot of America in this interest, but California is fast approaching an era when the home of the thoroughbred will here be located; when those who are seeking the pure-blooded, well-muscled colts are bound to come to purchase. California now has the reputation of not only producing the various necessities of life, but likewise the principal luxuries. The race-horse is a luxury, and necessarily high priced, which to the producer is a grand fault (?), and he can well afford to have it so.

The raising of standard bred and roadster classes of horses is likewise an important factor in this State. The prominence given some of our youngsters abroad has turned the attention of this class of buyers to our shores. These light-harness classes are desirable in all sections of the country, and the sales each season of California-bred ones are regular and remunerative to the breeder.

The breeding of the heavier classes of horses is one of the best paying investments that could be made. The demand for truck and delivery wagon animals is continual. One of our breeders of this character sells at public sale from \$30,000 to \$40,000 annually.

It is thus apparent that live-stock breeding in this State, of the kind and character in demand, is in itself one of our greatest industries,

and one which we desire to encourage in every possible way.

Quarantine Laws.

Accompanying this report will be found one from Thos. Bowhill, M. R. C. V. S., upon the diseases of live-stock in the State. It is clearly shown by examinations made that we have in our midst anthrax and Texas fever among the cattle, and cholera in swine.

It is highly necessary that action should be had at once for the extirpation of these plagues. Stringent quarantine laws would, in our opinion, be of great assistance in preventing importation, when the necessary remedies could be applied to eradicate the diseases now here. The appointment of a State veterinarian is one of the first steps necessary, as nearly every case afflicted can be traced to importation. Stop this, burn all carcasses of animals dying with disease, destroy all afflicted, and burn the ranges traversed, this plague can be easily stamped out. Until quarantine is placed on all stock coming into the State, it is useless to attempt its destruction, as the disease travels far faster than remedies unless check is placed on the fountain-head.

Pure Dairy Products.

EDITORS PRESS:—In your last issue you mention that Assemblyman Black of San Francisco has introduced a bill in the Legislature "prohibiting the sale of adulterated milk and other dairy products, and keeping cows in an unhealthy condition. It provides that no acids or fats or other deleterious substances shall be used in the manufacture of cheese or butter; prohibits the sale of milk except in the county where produced, unless the milkman be plainly marked with letters at least one-half an inch tall, showing where it was produced. It also provides for the appointment of a dairy commissioner, and prescribes the test that shall be used upon milk."

With the foregoing brief outline of the bill, I am not prepared to say whether it will meet all the requirements needed, but trust that it will. Readers of the PRESS will remember that last July I called attention to the fact that under the law of the State milkmen were permitted to water their milk to the extent of (I think) one-third. Such milk is of very little value as a food product, and the law should prohibit, under a heavy penalty, the adding of water to milk. In a majority of the States it is prohibited.

Keeping cows in a crowded or filthy condition should also be prohibited. Milk is a great absorbent, and carries with it, unless absolutely pure, the disease of the cow, germs of scarlet and typhus fever and diphtheria; and much of the sickness of infants can be directly traced to the use of milk from unhealthy cows, or cows kept in a crowded or filthy condition.

The bill prohibits the mixing of acids, fats or other deleterious substances with butter or cheese. This is a good section and should become a law. We have a national law providing for the sale of butterine and oleomargarine, but it is very easy for retailers to evade that law. Suppose the manufacturer of imitation butter in Chicago ships a carload of the stuff to this coast, who follows it to see where it is sold and whether the retailer has taken out a license? And is there not a great deal of the imitation butter sold in this State? Some three or four weeks ago several of the local newspapers, speaking of the scarcity of butter, added that Eastern butter was being shipped to the State to supply the demand. Who knows whether it was butter, butterine or oleomargarine? The imitation butters can be purchased so much cheaper than the pure product that it offers great temptation to people in the trade to buy it under its true name, and then sell it to an unsuspecting public for what it is not.

There is much to fear from adulterated cheese, also. There is a large number of creameries in the United States in which cheese is made from the milk after butter has been made from it. The cream is separated from the milk by centrifugal force, and there is not fat enough left in the milk to grease the joint of a pair of scissors. This skim milk is then made into cheese, having neutral oil added to give it the semblance of full cream cheese, and is known as "filled cheese." Only an expert can detect the fraud. The neutral oil comes from hog fat, but whether the hogs have died of cholera or other disease is never known; the oil is deodorized before being put in the cheese, and gives the latter the appearance of a fine full cream cheese; but it has no keeping qualities. Just now Illinois is waking up to the fact that this kind of cheese is not a wholesome article of diet, and the Legislature will be called upon to prohibit its manufacture, or cause it to be properly branded so that consumers may know what they are eating. Then there is the regulation skim cheese, unpalatable and indigestible, yet sold to an unsuspecting customer as full cream cheese. The appointment of a dairy commissioner for the State is a good move and should not long be delayed. He should be given ample power to enforce the law, and in providing penalties none will have a more salutary effect than that of imprisonment. Men can easily pay fines from their ill gotten gains, but a six-months' sojourn in a county jail usually destroys the desire to violate such laws. In nearly all the States wholesome laws have been enacted against the adulteration of milk and butter, and California

should not be in the rear any longer in protecting food products.

After 20 years' residence in Illinois, where I was intimately connected with the dairy industry of that State in various capacities, I have seen the need of stringent legislation to protect the honest producer as well as the innocent purchasers against bogus goods, and am fully aware of the necessity of having good laws and a thoroughly competent person as commissioner. New York, Iowa, Ohio, Minnesota, and other States have appointed commissioners, and the result has been beneficial to all classes. Other States and cities have milk inspectors, and the result is a much better quality of milk for the consumers. No producer of milk or manufacturer of butter or cheese should object to any law that prohibits the adulteration of these products, and when health and life itself is at stake, consumers should hail such a law with gratitude. Should the bill be passed, and the Governor be at all doubtful of its utility, he need only inquire of his former neighbors in Northern Illinois, and they will cheerfully give him information that will remove all doubts and lead him into instantly recognizing the fact that pure-food products is a boon craved by all.

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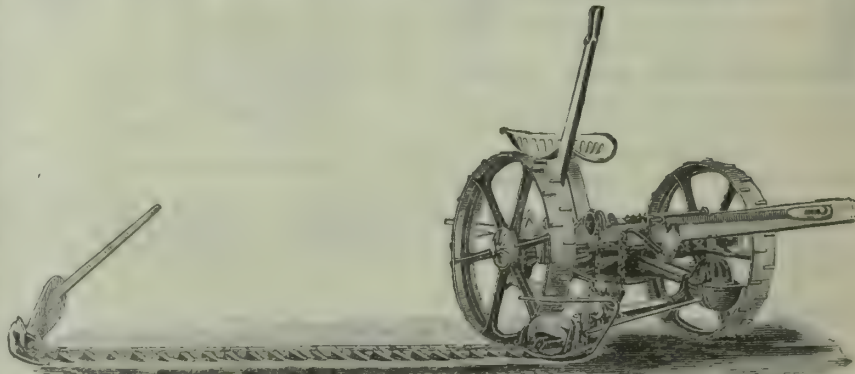
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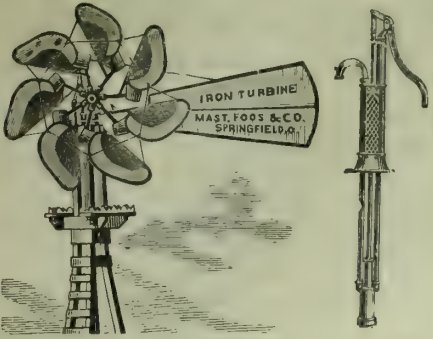
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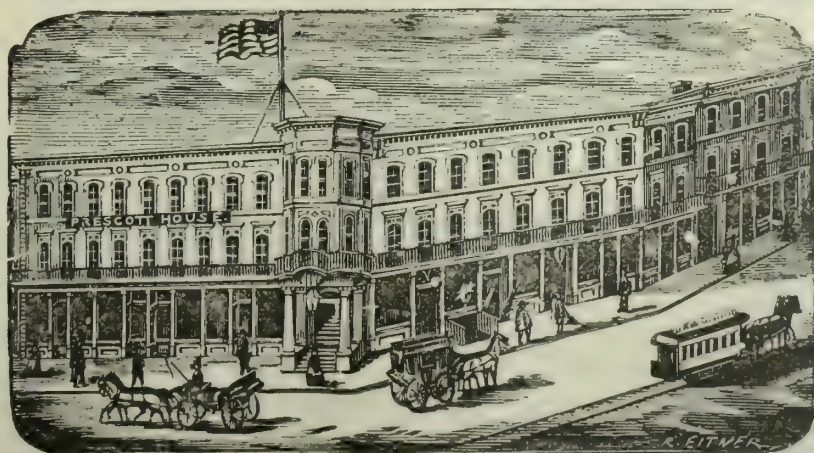
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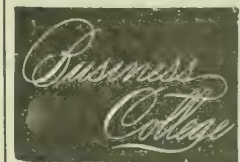
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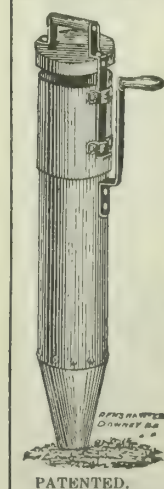
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QUERIES AND REPLIES.

Is it the Eastern Pear Blight?

EDITORS PRESS:—In June last Prof. E. W. Hilgard of the University of California received a letter from Mr. P. Hansen, residing in Butte county, which was referred to me for consideration. The correspondent stated that in the middle of July, 1887, his pear trees were attacked by what appeared to be a disease. The small limbs were affected first in the manner described below and finally three six-year-old pear trees died. In the spring of 1888 the disease showed itself on all his Bartlett pear trees, and concluding that he had something dangerous, he dug them all down and burned them, except three or four of which the diseased part was removed. Later on the disease showed itself again, also affecting apple trees. Mr. Hansen stated that his pear trees had previously always been thrifty and healthy.

I replied to the above statement that I was somewhat puzzled what to think of the trouble; that there was a similarity to the true Eastern "pear blight," but I thought it required a personal investigation on the spot to reach more definite conclusions and at that time I was unable to go.

Thus the matter rested until November, 1888, when, during the convention at Chico, Mr. Geo. Gray, superintendent of the orchards at Rancho Chico, exhibited branches of pear trees affected in a similar way and invited several gentlemen, all experienced horticulturists, and myself to see the trees from which the branches were taken. The trees shown to us were all old trees and had dying branches all through them. Generally the disease would start at the base of this year's growth, gradually spreading, the bark appearing as though burned clear around the twig, the leaves on the smaller twigs would wither and turn black. Removing the diseased limbs, Mr. Gray stated, had not stopped the disease, and it was plain that it was extending over the tree. The opinions expressed by most of the gentlemen present were to the effect that the trouble was due to sunburn.

As stated before, all these trees were large and old, and had been suffering from this affection for two years, but so far no tree had been killed. Mr. Gray, however, stated that young trees in other portions on the ranch had been killed to the ground. To see them I accompanied Mr. Gray the next day to a young Bartlett pear orchard just coming into bearing, and here I saw a number of trees affected in a similar way. Several had died to the ground; in some, only a portion of the limbs, while in others half of the tree was affected. Instances of this kind were found all over this portion of the orchard, and did not seem to be confined to any particular spot, one tree here and another there being affected. The dead trees had been attacked the previous season. The trees were all low-trained, the soil deep and rich, and the conditions did not seem materially different from hundreds of acres planted to pears in other portions of the State.

The same day I examined limbs brought by Mr. B. F. Allen from his orchard on Butte creek. The indications were the same dead spots commencing at the base of last year's growth. Mr. Allen has lost a number of trees, and says he has observed the disease for about three years. His land where these trees grow is at times pretty moist.

In view of the importance of the subject and the possible danger of contagion, I forwarded specimens of affected limbs to Mr. Galloway, Chief of the Division of Vegetable Pathology, Dept. of Agriculture, Washington, giving description of the symptoms. Under date of Dec. 5th, I received the following answer:

W. G. Klee—DEAR SIR:—Your favor of the 25th of November, together with diseased pear limbs, is at hand. The large branch which shows the dark discoloration for about half its length is certainly affected with the well-known blight that occasions such widespread injury in the Eastern and Central States. The smaller branches appear to be affected with the same malady, although they are so completely killed that I would not assert positively that they have the blight also. If it is the blight due to *Micrococcus amylovorus*, Burrill, it would be an easy matter to prove it by inoculating healthy twigs with the juice of the diseased ones. We have published a very complete account of pear blight in the annual report of this Department for 1886. B. T. GALLOWAY, Department of Agriculture, Washington, D. C.

It will be seen that Mr. Galloway unreservedly pronounces the affection pear blight. It being thus declared by an authority to be the dread disease, I naturally concluded to get more data from the correspondent in Grainland (Mr. Hansen), and, with this in view, sent him several questions bearing on this point, which, with his replies, are introduced herewith:

Question—What kind of weather prevailed previous to your seeing your trees affected?

Answer—Very warm and sunny. It was in the last part of June, 1887, that I first noticed the disease; the trees were growing very thriftily.

Question—What is the nature of your soil?

Answer—A clayey loam 2½ feet deep resting on a clay subsoil.

Question—Well drained or not?

Answer—No artificial drainage, but good natural drainage. There is never any water standing on or near the surface; it all disappears a few hours after the rain ceases.

Question—Whence did you receive your trees?

Answer—My trees were received from San Jose in 1882.

This question was put to ascertain if all the affected trees in Butte county did not come from the same place. The answer does not encourage this theory.

Mr. Hansen adds: "I have no specimens to send you at present, for on receipt of your letter I dug all my trees up, excepting four older ones, and those I pruned all the diseased wood off, but in a month it reappeared on a few small limbs. I removed the attacked part again, and this time it did not reappear. The disease appeared most aggressively in the months of June and July. It would strike a limb frequently in the middle and work both ways, and I have noticed the top of the limbs to stay green and appear thrifty for two weeks after the bark had turned black clear around the limb for six to eight inches. Likewise the small twigs on unaffected limbs will remain green for a week or two after the bark has turned black and begun to crack on the main limbs, showing, I think conclusively, that the disease works from the outside toward the heart."

It must be confessed that the symptoms of and appearance of this affection are very much like the true Eastern pear blight, yet it differs in certain points. The Eastern pear blight shows dying at the top of the branch first, while in this case the dying is from the base of the branch up. It will be well to try the test of the true pear blight on some few healthy trees by inoculating the limbs with the sap of a diseased one. If this succeeds, the identity of the disease will be proved.

It is a little difficult to believe that the theory of sunburn advanced is correct. If so, why should the trouble not have shown itself before, and why, when once started, should the affection spread and go on from year to year? Yet I hope it is not this, and have reason to believe that it may be ascribed to other causes than blight.

One of the strongest reasons for not believing it to be this disease is the fact that we have seen the pear tree thriving under the most trying circumstances, growing and bearing, and bearing good fruit in wet land after having been submerged for weeks or months, living in locations where everything else dies from bad drainage and drouth—in fact remaining healthy under conditions no other tree can resist. I know of an orchard of some 150 varieties of pears imported 12 years from New York State; of all these only one kind has showed any dying back or unhealthiness, and this in spite of the fact that other kinds of fruit have died by the wholesale alongside of them, owing to the bad drainage.

A microscopic investigation of the diseased bark (with a low-power objective) has not developed anything very important. The discoloration (red) of the cells of the bark is very plain, varying in intensity. New spots in tissue but little affected are noted of a bright-red color, but no spores of any fungus appear with the low power I have used (one-fifth). The pith of the affected parts turns dark, but does not differ essentially from that of any other dying branch.

W. G. KLEE,

State Inspector of Fruit Pests, Berkeley, Cal., Jan. 25th.

Sub-Irrigation.

EDITORS PRESS:—Where can I obtain some information concerning sub-irrigation, cost, etc., and results obtained by that method when compared with ordinary surface irrigation?—W., Ukiah, Cal.

We receive many such inquiries, and we would be very glad to hear from our readers on their experience with the sub-irrigation system which was put forth with such earnestness a few years ago. Is the system practicable or not, and why?

Cost of Steel Rails.

EDITORS PRESS:—Believing that you are all strictly honest in your advocacy of a protective tariff as beneficial to the interest of farmers, I do not think you would make, or allow to be made in your paper, any statement, no matter how effective for your side, if you knew it to be untrue. I therefore take the liberty to call your attention to a statement in the number for Dec. 29th as to a former and the present price of steel rails.

Any one reading your statement would think you intended to say that in 1868 the normal price of steel rails was \$120 per ton, and that this price was the combination of labor, capital and profit, when in fact it was made up in the following manner:

Rails.....	\$55 00
Duty.....	28 00
Freight, insurance, etc.....	7 00
Premium on gold, 33 per cent.....	29 70
Currency price.....	\$119 70

W. S. CUNNINGHAM.

Lemoore, Jan. 20, 1889.

PIGS AND POULTRY AT HAW HILL.—Springer Bros.' catalogue (No. 9) of Berkshire pigs, Light Brahma fowls and Royal Bronze turkeys, bred by them at "Haw Hill," Springfield, Ill., gives considerable information about the improved breed of swine in question, and is embellished with portraits of two of their choicest specimens—Royal Granite and Orient Maud.

Big Price for a Squeezed Orange.

On the attempt, now being made at Sacramento, to induce the State of California to take the "Bancroft Library" off the owners' hands and leave in its place the trifling sum of a quarter-million dollars, the *Bulletin* remarks:

A similar bill was before the Legislature two years ago. Some surprise was then expressed at the proposed cost. The explanation which went around privately was that it was estimated it would require \$50,000 to pass the bill, and that sum, beyond the supposed value of the property, was provided for in the bill. That excess it was proposed to draw from the State Treasurer, to "grease the ways." The bill recently introduced again proposes that the State shall pay \$250,000 for this library. If our informants are not mistaken, it has been offered for sale to private parties for a much less sum, and has found no buyers.

No doubt this library embraces a valuable collection of documents relating to the history of the Pacific Coast. But a very small proportion of the whole has any relation to the history of California. From the data furnished by this library, there have been constructed 30 or more large octavo volumes which have been circulated by subscription, in all parts of California and all over the country. Presumably, these volumes are found in the State library, as they are in a number of other State institutions. The essence of these historical documents has been extracted and turned over to the public. Great as the work may have been, it has not been attended with any loss, but rather by a large profit. The question in its simple form is, *Shall the tax-payers now furnish a quarter of a million of dollars to buy a private library, which was collected as a business venture, and, having successfully served that purpose, is on the market?* It goes without saying that the collection is a desirable one. But is that a reason why the State should add to the fortune of a private individual and deplete its own treasury by buying property for which it can have no practical use?

We are decidedly of opinion that the State can spend the people's money to better purpose.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING JAN. 15, 1889.

396,134.—VENTILATOR—P. Abrahamson, S. F.
396,251.—ROTARY SEED-SOWER—J. H. Adamson, North Melbourne, Australia.
396,142.—REVERSIBLE PLOW—Jas. A. Cole, Julian, Cal.
396,147.—CONVERTING MOTION—J. De Monnin, Corvallis, Ogn.
396,211.—BUGGY BOW SUPPORT—Kolb, Allen & St. Clair, Oceanside, Cal.
396,284.—AUTOMATIC AIR-BRAKE—Geo. W. Marsh, Oakland, Cal.
396,111.—VETERINARY REMEDY—B. M. V. B. Price, Arroyo Grande, Cal.
396,250.—VEHICLE SEAT—J. A. West, San Rafael, Cal.

THAT UNIQUE MAP AGAIN.—The Riverside Press of Jan. 26th publishes quite a lengthy letter from Wm. H. Mills regarding "The Unique Map of California," in which he says, on behalf of Gen. Supt. Fillmore, that "no body connected with the S. P. Co. in any official capacity authorized the publication of this map, or supervised its publication, or was in any manner conscious of the features it would present, or that it was to be published." Mr. Mills also states that "the publishers of the map on being inquired of concerning the use of the names of the State Board of Trade and the S. P. Co., said that they placed that plate on the face of the map merely as a compliment to the two organizations, and admitted fully that it was without authority of either."

ILLEGAL FENCING.—In the RURAL of Aug. 11th last, mention was made of an investigation by Special Agent J. B. Brockenbrough into the inclosing of some 50,000 acres of public lands in Modoc Co. by Jesse D. Carr. The Commissioner of the General Land Office has lately transmitted to the Secretary of the Interior Maj. Brockenbrough's report on the case. He states that the inclosure contains about 52,480 acres of land, of which 12,568 acres are State lands, 160 acres entered lands and the remainder (39,752 acres) vacant public lands. The Land Commissioner recommends that civil and criminal proceedings be instituted against Carr for violating the provisions of the Act of Feb. 25, 1885.

PRODIGIOUSLY RICH IN OIL.—A report is getting widely quoted about a certain large olive orchard in which (it is said) "many of the trees bore six pounds of berries, which will make one gallon of oil." Reckoning by the venerable rule that

A pint's a pound

The whole world round,

This would give four measures of oil from three of berries. We know California products are marvelously rich, but this is past our credence! Wonder if the gentleman who witnessed the picking said "six pounds"—or something else.

REMOVAL.—The well-known establishment of W. C. Price & Co., formerly at the corner of Clay and Front streets, may now be found at 320 Davis street. Shippers and buyers of produce should note the change.

SHORTHORN SALE.—So few were in attendance at the proposed sale of Shorthorns at the Bay District track on Tuesday, that the sale was postponed.

Our Seed Offering—1889.

Great Inducements for New Subscriptions.

To encourage gardening and further extend the circulation of the PACIFIC RURAL PRESS, we will offer, while this notice remains in our columns, to furnish to all old or new subscribers the following seeds on the favorable terms named below:

VEGETABLE SEEDS.			33	Antirrhinum Majus,	5
83 Varieties.			34	Cacalia Coccinea (Tas-	5
In Papers, postpaid.			Cts		
BEET					
1	Early Blood Turnip.....	10	35	Ca. panula Spectrum.....	5
2	Early Extra Bassano.....	10	36	(Veget. King Glass).....	5
3	White Sugar.....	10	37	Centauria Cynus (Bach-	5
4	Yellow Sugar.....	10	38	el's Button).....	5
5	Early Long Dark Blood.....	10	39	Clarkia, fine mixed.....	5
6	Early York.....	5	40	Convolvulus (Morning	5
7	Early Dutch.....	10	41	Glory) mixed.....	5
8	Early Vandyke.....	10	42	Foxglove, mixed.....	5
9	Early French Oxheart.....	10	43	Gladiolus, mixed.....	5
10	Large Late Drumhead.....	10	44	Globe Amaranthus.....	5
11	Red Dutch (pickling).....	10	45	Gypsophila Elegans.....	5
12	White Sals.....	10	46	Ice Plant.....	5
13	White Sals.....	10	47	Larkspur, finest mixed.....	5
14	Early Paris.....	10	48	Linum Grandifolium (Flax)	5
CABBAGE			49	Love-in-a-mist.....	5
15	Extra Early Forcing.....	10	50	Marigold, African.....	5
16	Long Orange.....	10	51	Marigold, French.....	5
17	Early Horn.....	10	52	Minion, the Sweet.....	5
18	White Belgian.....	10	53	Nasturtium.....	5
19	Half Long Danvers.....	10	54	Nolana.....	5
CUCUMBER.			55	Polemonium, mixed.....	5
19	White Spine.....	10	56	Poppy, Double, mixed.....	5
20	Early Cluster.....	10	57	Rocket, Sweet.....	5
21	Early Frame.....	5	58	Rocket, Double, mixed.....	5
22	Long Green.....	10	59	Sensitive Plant.....	5
23	Eng. Gherkin, Pickles.....	10	60	Sweet Pea, White.....	5
LETTUCE			61	Sweet Pea, Crimson.....	5
24	Early Curled Silesia.....	10	62	Sweet Pea, mixed.....	10
25	Ice Drumhead.....	10	63	Sweet William, mixed.....	5
26	Rimp on's Early Cur'd.....	10	64	Sunflower, Cal. Dbl'e.....	5
27	Prize Head.....	10	65	Adumia Cirsiosa.....	5
28	White Paris Cas.....	10	66	(Mountain Fringe).....	10
29	Hanson.....	10	67	Al hea (Hollyhock) fine	10
30	Boston Market.....	10	68	Aster, China, mixed.....	10
MELONS.			69	Australian Vine.....	10
31	Large Yel. Canteloupe.....	10	70	Balsam (Lady Slipper).....	10
32	Extra Fine Netcome.....	10	71	Balsam, mixed.....	10
33	Casaba (m.w.).....	10	72	Balsam, Splendid, dbl.....	10
34	Montreal Nutmeg.....	10	73	Balsam, Dwarf, double.....	25
35	Cuban Queen W'melon.....	10	74	Balloon Vine.....	10
36	Mt. Sweet Watermelon.....	10	75	Browallia Grandiflora.....	10
37	Iron Clad Watermelon.....	10	76	Canna (Indian Shot).....	10
38	Scaly Bark do.....	10	77	Canna, fine mixed var.....	10
39	Black Spanish do.....	10	78	Celastrus Cristata Varie'a	10
40	White Imp, or Lodi do.....	10	79	Celosia Cristata Pur-	10
41	Georgia Rattlesnake do.....	10	80	purea.....	10
ONIONS.			81	Clematis Flammula.....	15
42	Early Red.....	10	82	Dahlia Superbula, mixd.....	25
43	Red Wetherfield.....	10	83	Dianthus Chinensis (In-	10
44	Yellow Danvers.....	10	84	dian Pink).....	10
45	W. Porfol or Sil. Skin.....	10	85	Dianthus Chinensis (D-	10
PARSNIP.			86	ouble White).....	10
45	White Dutch.....	5	87	Celosia Cristata, fine	10
RADISH.			88	Celosia (Crimson).....	10
46	Mammoth California.....	10	89	Chrysanthemum Album.....	10
47	Olive Shaped Radish.....	10	90	Chrysan, fine mixed.....	10
48	Early Scarlet Turnip.....	10	91	Evening Primrose.....	10
49	Black Spanish or Wint'r.....	10	92	Four O'Clock, mixed.....	10
50	Long Scarlet.....	10	93	Forget-me-not.....	10
SQUASH.			94	Geranium Zonale.....	10
51	Early Scalloped Bush.....	10	95	Geranium, fancy color.....	25
52	Early Summer Neck.....	10	96	Godetia (The Bride).....	10
53	California Field.....	10	97	Gourds (Hercules).....	10
54	Marblehead.....	10	98	Iponoeia (Cypress Vine).....	10
55	Boston Marrow Wint'r.....	10	99	Indian Pink, dbl, mixd.....	25
56	New Hubbard Winter.....	10	100	Lobelia, Crystal Palace.....	10
TOMATO.			101	Lobelia, Blue.....	10
58	The Conqueror.....	10	102	Malva Plant.....	10
59	Early Red Smooth.....	10	103	Nierembergia Gracilis.....	10
60	Troly.....	10	104	Pansy, fine mixed.....	10
61	Canada Victor (earliest).....	10	105	Petunia, mixed.....	10
62	Acme.....	10	106	Phlox Drummondii.....	10
63	Favorite.....	10	107	Pyrethrum, A. var. un.....	10
TURNIP.			108	Pyrethrum, A. var. un.....	10
63	Cow Horn.....	10	109	Salpiglossis mixed.....	10
64	Yel. Rutabaga or Sw'dh.....	10	110	Stock (Ten Week).....	10
65	Early White Flat Dutch.....	5	111	Wallflower, fine mixed.....	10
66	Long White French.....	10	112	Wallflower, purple.....	10
67	Imp. Late Rutabaga.....	10	113	Zinnia, mixed fine.....	10
68	Red Top Strap Leaf.....	10	114	Zinnia, Scarlet, dbl.....	10
SPINACH.			115	Bell's Perennials (Daisy)	15
68	Round Leaf.....	10	116	single.....	15
69	Large Flat.....	10	117	Campanula Medium (Can-	15
PEAS.			118	terbury Belle).....	15
70	Extra Early.....	10	119	Canary Bird Flower.....	15
71	Champion of England.....	10	120	Thunbergia, mixed.....	15
72	Yorkshire Hero.....	10	121	Aquilegia Alpina (Col-	10
73	Rural New Yorker.....	10	122	umbine).....	20
BEANS.			123	Heliotropium, fine mxd.....	20
82	Black German Wax.....	10	124	Heliotropium, dark, mxd.....	20
83	Refuge.....	10	125	Verbena, c. ofice, mxd.....	20
84	Red Valentine.....	10	126	Violet, Blue.....	20
85	China Red Eye.....	10	127	Balsam Camellia, row'd.....	20
86	Black German Wax.....	10	128	Carnation, fine mixed.....	25
87	Refuge.....	10	129	Digitalis.....	5
88	China Red Eye.....	10	130	Dolichos (Hyacinth Bean)	5
89	Black German Wax.....	10	131	Garlandia Grandiflora.....	10
90	Refuge.....	10	132	Hybridia.....	10
91	China Red Eye.....	10	133	Nemophila, fine mixed.....	10
92	Black German Wax.....	10	134	Perilla Nankinensis.....	5
93	Refuge.....	5	135	Saponaria Multiflora.....	5
94	China Red Eye.....	10	136	Scabiosa Atropurpurea.....	10
95	Black German Wax.....	10	137	Scabiosa Atropurpurea.....	10
96	Refuge.....	10	138	Scabiosa Atropurpurea.....	10
97	China Red Eye.....	10	139	Scabiosa Atropurpurea.....	10
98	Black German Wax.....	10	140	Scabiosa Atropurpurea.....	10
99	Refuge.....	10	141	Scabiosa Atropurpurea.....	10
100	China Red Eye.....	10	142	Scabiosa Atropurpurea.....	10
101	Black German Wax.....	10	143	Scabiosa Atropurpurea.....	10
102	Refuge.....	10	144	Scabiosa Atropurpurea.....	10
103	China Red Eye.....	10	145	Scabiosa Atropurpurea.....	10
104	Black German Wax.....	10	146	Scabiosa Atropurpurea.....	10
105	Refuge.....	10	147	Scabiosa Atropurpurea.....	10
106	China Red Eye.....	10	148	Scabiosa Atropurpurea.....	10
107	Black German Wax.....	10	149	Scabiosa Atropurpurea.....	10
108	Refuge.....	10	150	Scabiosa Atropurpurea.....	10
109	China Red Eye.....	10	151	Scabiosa Atropurpurea.....	10
110	Black German Wax.....	10	152	Scabiosa Atropurpurea.....	10
111	Refuge.....	10	153	Scabiosa Atropurpurea.....	10
112	China Red Eye.....	10	154	Scabiosa Atropurpurea.....	10
113	Black German Wax.....	10	155	Scabiosa Atropurpurea.....	10
114	Refuge.....	10	156	Scabiosa Atropurpurea.....	10
115	China Red Eye.....	10	157	Scabiosa Atropurpurea.....	10
116	Black German Wax.....	10	158	Scabiosa Atropurpurea.....	10
117	Refuge.....	10	159	Scabiosa Atropurpurea.....	10
118	China Red Eye.....	10	160	Scabiosa Atropurpurea.....	10
119	Black German Wax.....	10	161	Scabiosa Atropurpurea.....	10
120	Refuge.....	10	162	Scabiosa Atropurpurea.....	10
121	China Red Eye.....	10	163	Scabiosa Atropurpurea.....	10
122	Black German Wax.....	10	164	Scabiosa Atropurpurea.....	10
123	Refuge.....	10	165	Scabiosa Atropurpurea.....	10
124	China Red Eye.....	10	166	Scabiosa Atropurpurea.....	10
125	Black German Wax.....	10	167	Scabiosa Atropurpurea.....	10
126	Refuge.....	10	168	Scabiosa Atropurpurea.....	10
127	China Red Eye.....	10	169	Scabiosa Atropurpurea.....	10
128	Black German Wax.....	10	170	Scabiosa Atropurpurea.....	10
129	Refuge.....	10	171	Scabiosa Atropurpurea.....	10
130	China Red Eye.....	10	172	Scabiosa Atropurpurea.....	10
131	Black German Wax.....	10	173	Scabiosa Atropurpurea.....	10
132	Refuge.....	10	174	Scabiosa Atropurpurea.....	10
133	China Red Eye.....	10	175	Scabiosa Atropurpurea.....	10
134	Black German Wax.....	10	176	Scabiosa Atropurpurea.....	10
135	Refuge.....	10	177	Scabiosa Atropurpurea.....	10
136	China Red Eye.....	10	178	Scabiosa Atropurpurea.....	10
137	Black German Wax.....	10	179	Scabiosa Atropurpurea.....	10
138	Refuge.....	10	180	Scabiosa Atropurpurea.....	10
139	China Red Eye.....	10	181	Scabiosa Atropurpurea.....	10
140	Black German Wax.....	10	182	Scabiosa Atropurpurea.....	10
141	Refuge.....	10	183	Scabiosa Atropurpurea.....	10
142	China Red Eye.....	10	184	Scabiosa Atropurpurea.....	10
143	Black German Wax.....	10	185	Scabiosa Atropurpurea.....	10
144	Refuge.....	10	186	Scabiosa Atropurpurea.....	10
145	China Red Eye.....	10	187	Scabiosa Atropurpurea.....	10
146	Black German Wax.....	10	188	Scabiosa Atropurpurea.....	10
147	Refuge.....	10	189	Scabiosa Atropurpurea.....	10
148	China Red Eye.....	10	190	Scabiosa Atropurpurea.....	10
149	Black German Wax.....	10	191	Scabiosa Atropurpurea.....	10
150	Refuge.....	10	192	Scabiosa Atropurpurea.....	10
151	China Red Eye.....	10	193	Scabiosa Atropurpurea.....	10
152	Black German Wax.....	10	194	Scabiosa Atropurpurea.....	10
153	Refuge.....	10	195	Scabiosa Atropurpurea.....	10
154	China Red Eye.....	10	196	Scabiosa Atropurpurea.....	10
155	Black German Wax.....	10	197	Scabiosa Atropurpurea.....	10
156	Refuge.....	10	198	Scabiosa Atropurpurea.....	10
157	China Red Eye.....	10	199	Scabiosa Atropurpurea.....	10
158	Black German Wax.....	10	200	Scabiosa Atropurpurea.....	10
159	Refuge.....	10	201	Scabiosa Atropurpurea.....	10
160	China Red Eye.....	10	202	Scabiosa Atropurpurea.....	10
161	Black German Wax.....	10	203	Scabiosa Atropurpurea.....	10
162	Refuge.....	10	204	Scabiosa Atropurpurea.....	10
163	China Red Eye.....	10	205	Scabiosa Atropurpurea.....	10
164	Black German Wax.....	10	206	Scabiosa Atropurpurea.....	10
165	Refuge.....	10	207	Scabiosa Atropurpurea.....	10
166	China Red Eye.....	10	208	Scabiosa Atropurpurea.....	10
167	Black German Wax.....	10	209	Scabiosa Atropurpurea.....	10
168	Refuge.....	10	210	Scabiosa Atropurpurea.....	10
169	China Red Eye.....	10	211	Scabiosa Atropurpurea.....	10
170	Black German Wax.....	10	212	Scabiosa Atropurpurea.....	10
171	Refuge.....	10	213	Scabiosa Atropurpurea.....	10
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175	China Red Eye.....	10	217	Scabiosa Atropurpurea.....	10
176	Black German Wax.....	10	218	Scabiosa Atropurpurea.....	10
177	Refuge.....	10	219	Scabiosa Atropurpurea.....	10
178	China Red Eye.....	10	220	Scabiosa Atropurpurea.....	10
179	Black German Wax.....	10	221	Scabiosa Atropurpurea.....	10
180	Refuge.....	10	222	Scabiosa Atropurpurea.....	10
181	China Red Eye.....	10	223	Scabiosa Atropurpurea.....	10
182	Black German Wax.....	10	224	Scabiosa Atropurpurea.....	10
183	Refuge.....	10	225	Scabiosa Atropurpurea.....	10
184	China Red Eye.....	10	226	Scabiosa Atropurpurea.....	10
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189	Refuge.....	10	231	Scabiosa Atropurpurea.....	10
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204	Refuge.....	10	246	Scabiosa Atropurpurea.....	10
205	China Red Eye.....	10	247	Scabiosa Atropurpurea.....	10
206	Black German Wax.....	10	248	Scabiosa Atropurpurea.....	10
207	Refuge.....	10	249	Scabiosa Atropurpurea.....	10
208	China Red Eye.....	10	250	Scabiosa Atropurpurea.....	10
209	Black German Wax.....	10	251	Scabiosa Atropurpurea.....	10
210	Refuge.....	10	252	Scabiosa Atropurpurea.....	10
211	China Red Eye.....	10	253	Scabiosa Atropurpurea.....	10
212	Black German Wax.....	10	254	Scabiosa Atropurpurea.....	10
213	Refuge.....	10	255	Scabiosa Atropurpurea.....	10
214	China Red Eye.....	10	256	Scabiosa Atropurpurea.....	10
215	Black German Wax.....	10	257	Scabiosa Atropurpurea.....	10
216	Refuge.....	10	258	Scabiosa Atropurpurea.....	10
217	China Red Eye.....	10	259	Scabiosa Atropurpurea.....	10
218	Black German Wax.....	10	260	Scabiosa Atropurpurea.....	10
219	Ref				

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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P. H. MURPHY, (Brighton) Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

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OOTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

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SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

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T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

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PETER SAXE & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

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SWINE.

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JOSEPH MELVIN, Davisville, Cal., Breeder of Poland China Hogs.

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ANDREW SMITH, Redwood City, Cal.; see adv't.

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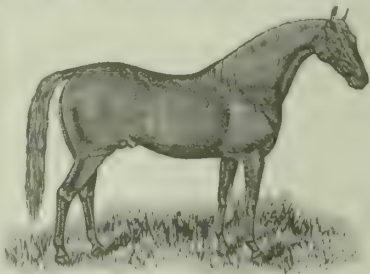
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That the public should know that for the past Eighteen Years our Sole Business has been, and now is importing (Over 100 Carloads) and breeding improved Live Stock—Horses, Jacks, Short Horns, Ayrshires, and Jerseys (or Alderneys) and their grades; also, all the varieties of breeding Sheep and Hogs. We can supply any and all good animals that may be wanted, and at very reasonable prices and on convenient terms. Write or call on us. PETER SAXE and HOMER P. SAXE. San Francisco, Cal., Oct. 22, 1888. PETER SAXE & SON, Lick House, S. F.

COOK STOCK FARM.

THOROUGHbred RECORDED

CLEVELAND BAY and STANDARD TROTTER HORSES.



SHORTHORNS, DEVONS, ABERDEEN-ANGUS & GALLOWAY CATTLE

Young Stock in each herd for sale. Address:

GEO. A. WILEY, Danville, Contra Costa Co., Cal.



"WALNUT GROVE"

Registered and Thoroughbred

Poland-China Herd.

My herd is headed with such sires at the head of the breeding establishment as the unequalled sire, The King and Perfection King, and Black Pride breeding sows, as fine individuals and as strictly bred as any in the land. Breeders for sale at all times. I have first-class Pigs of both sexes at reasonable prices.

RESIDENCE AND BREEDING FARM, one and a half miles northeast of Davisville.

JOSEPH MELVIN, Davisville, Cal.

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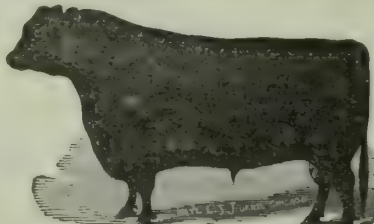
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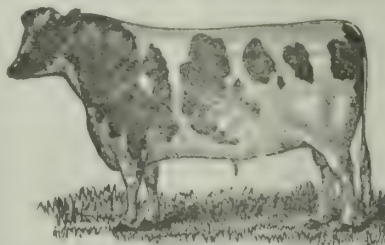
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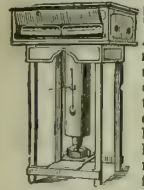
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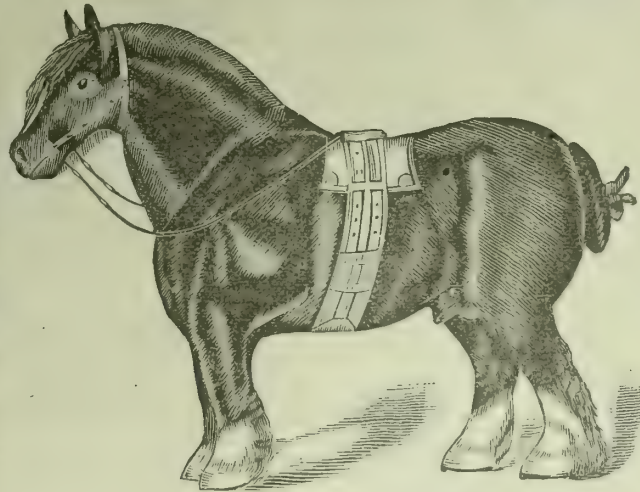
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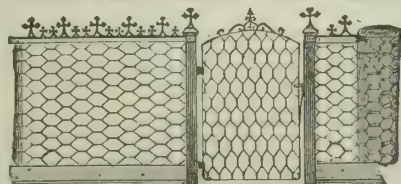
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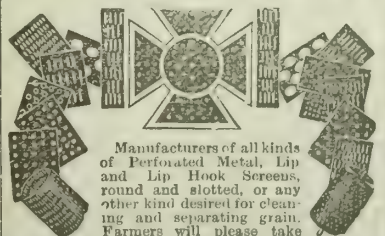


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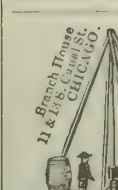


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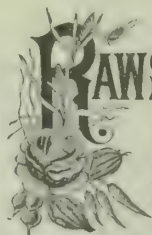
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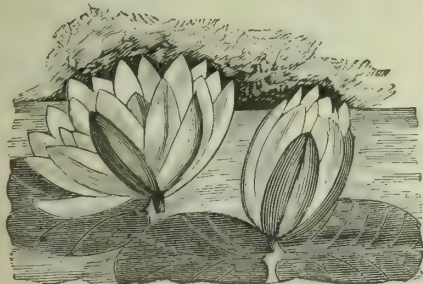
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Trees and Cuttings.CABERNET SAUVIGNON,
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MATARO AND CARIGNANE,
RIPARIA, GRAPE ROOTS & CUTTINGS.
GRAPE ROOTS \$5 per thousand.White Adriatic Figs grown and packed by me for sale
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SAN JSE, Jan. 7, 1889.

M. Denicke, Fresno—DEAR SIR: The figs sent to me
to San Jose are very fine, and nothing has yet been pro-
duced in California to come any way near them. * * *
Inclosed are orders for 12 additional cases.
Very truly,
JOHN ROCK.**VITIS CALIFORNICA SEEDS.**Five pounds and over, \$1 per pound; less than five
pounds, \$1.50 per pound.Vitis Californica Seedlings, Phylloxera Proof.
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Lemons,Shade Trees and Ornamen-
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French Walnuts, Home-grown Oranges and Rooted Grapevines.

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Peaches in variety. Catalogues on application.

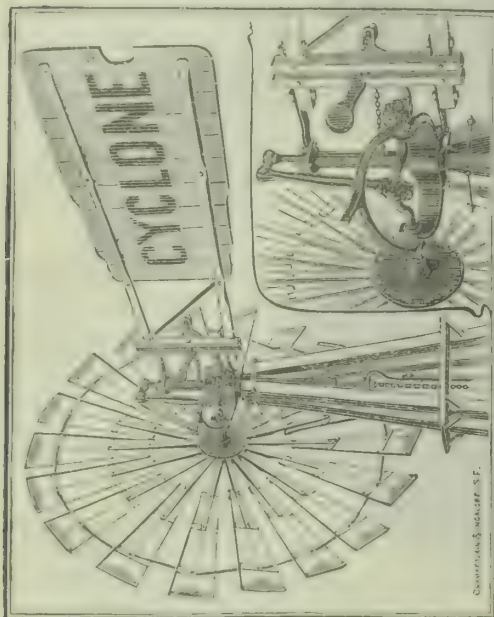
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it. Large stock of Raspberry, Straw-
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Apples, Cherries, etc. All the worthy
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Why? Because we
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Small Fruit Plants and Trees.
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1889.



THIS SIZE TYPE REPRESENTS SALES IN 1885 and 1886.
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And Judging from the Sales in January,

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BUGGIES in every grade,

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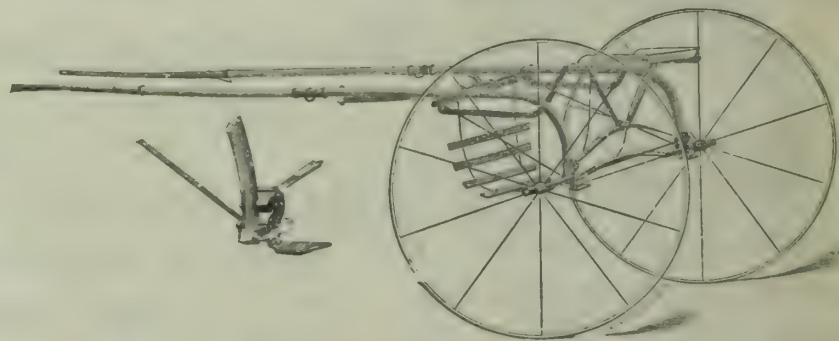
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AGRICULTURAL IMPLEMENTS.

**SHAW REVERSIBLE, and SLIP-SHARE GANG PLOWS,
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GARDEN TOOLS, LAWN MOWERS, SEEDS, Etc.



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BEATS ANYTHING FOR THE MONEY EVER BROUGHT OUT IN THE SHAPE OF A CART.

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It is Simple, Light and Strictly First Class,

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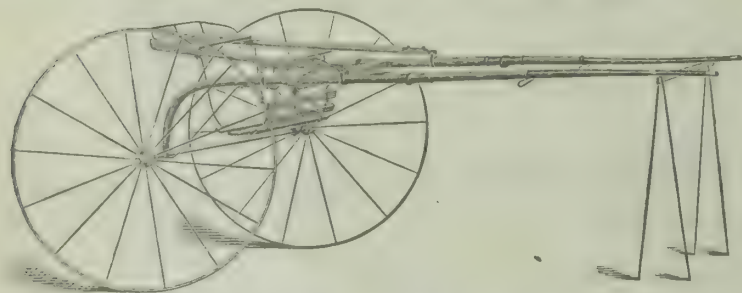
Steel Axles and Steel Tires.

PERFECTLY BALANCED.

Low Bent Seat Arms, Long, Easy-Riding, Oil-Tempered Springs, Best
Wheels and Best All Over.

IT HANGS LOW, RIDES EASY, AND HAS NO HORSE MOTION.

PRICE, Two-Passenger Cart (Wheels, Springs and Axles guaranteed for a year), \$25.



THE CALIFORNIA CART

Is the Best Bar Cart ever brought to the Coast.

Just the thing for the Farmer to go to town in and for children to go to school in. They are very popular. Dealers buy them at first sight because they sell rapidly. They are worth all they cost to break colts in and also save your buggy during muddy times. Price (Wheels, Springs and Axles guaranteed for a year), \$25.

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PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXVII.—No. 6

SAN FRANCISCO, SATURDAY, FEBRUARY 9, 1889.

\$3 a Year, in Advance.
SINGLE COPIES, 10 CTS.

Rigoletto.

Our engraving shows a fine horse for all purposes, the property of F. Brughelli of Napa. He bears the euphonious title Rigoletto, and is worth attention both for his striking individu-

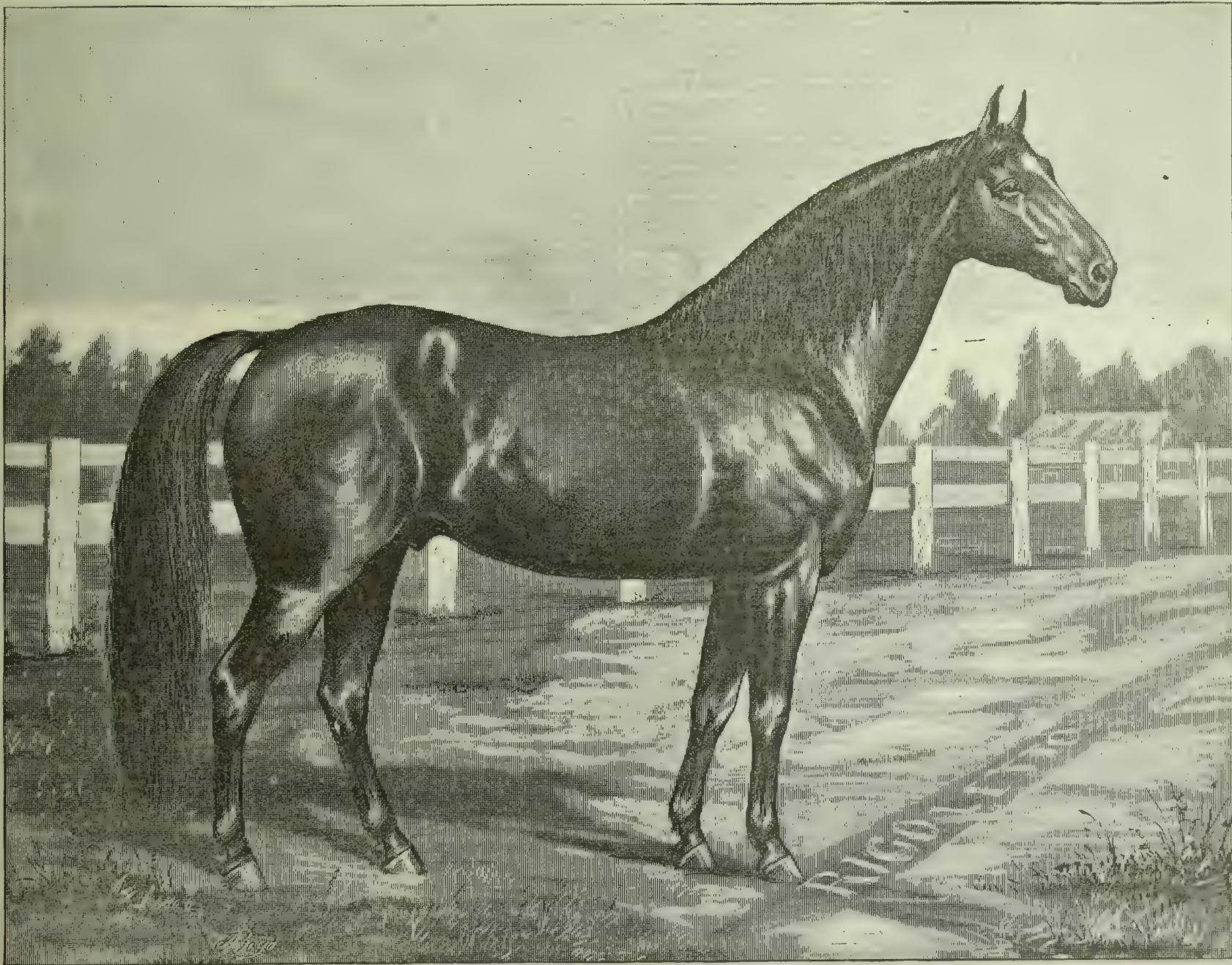
which will commend itself to horsemen. Rigoletto is a bay 8 years old, stands 17 hands high, and weighs 1585 pounds. He has a fine coat, good bone and muscle and good disposition.

Mr. Brughelli has another stallion in which he takes much pride and names Boccaccio.

Lawless Railroad Managers.

The Interstate Commerce Commission now has a fine opportunity to make an example of the railroad managers who have refused to comply with the orders recently made by the Com-

It is evident that nothing short of a firm and rigid enforcement of the law will prevent its constant evasion or violation. The evidence is that the agreement entered into a few weeks ago in New York, which promised a full compliance with the requirements of the Inter-



BAY STALLION RIGOLETTO, OWNED BY F. BRUGHELLI, OF NAPA.

ality, which the artist has caught very well in his sketch, and for his lineage, which is honorable.

Rigoletto was sired by Jno. M. Patchen, he by Geo. M. Patchen, Jr.; the dam of John M. Patchen was the celebrated trotting mare, Lady Geneva; she was sired by Rysdyk Hambletonian. The dam of Rigoletto was sired by Bay Chief, full brother to Sim Holden's running mare Comet, he by Black Prince, he by Satin Lomix. Bay Chief's dam was Morgan and Woodpecker, his grandam full-blooded Morgan. Thus Rigoletto is seen to combine Patchen and Hambletonian blood on the side of his sire and Lomix and Morgan on the side of his dam—a fusion of trotting and running points

Boccaccio, also a bay horse, is six years old, and full brother to Rigoletto. From their dam Kitty B. he has also a weanling stallion by Alcona 730, an animal of much promise. Rigoletto and Boccaccio both took premiums at the Napa and Solano District Fair in 1887 and 1888.

LARGE ORCHARD INTERESTS.—A. T. Hatch has 800 acres set to fruit trees near Suisun, 160 acres in Contra Costa county, 315 acres in Livermore Valley, 640 acres near Lodi, 35 acres at Vacaville, 10 acres of oranges in Butte county, and 20 acres in Placer county. He also has an interest in 1200 acres, half planted between Marysville and Oroville and seems entitled to the "boss orchardist" medal.

mission in Chicago. It will be remembered that the investigation then prosecuted resulted in disclosures which surprised Judge Cooley, the chairman of the Commission, and caused him to talk very plainly to the offending managers. He took care to warn them that a repetition of the abuses would be summarily punished. They paid no heed to the warning. Complaints of a violation of the orders of the Commission have become so numerous and weighty as to make it necessary to again visit Chicago. If these charges are substantiated, as it seems most likely they will be, it is expected the Commission will proceed against the offenders to the full extent of its authority.

This Commission should do so by all means.

state Act, has been deliberately disregarded, thus furnishing additional and more convincing proof of the faithlessness of railroad managers. The plain duty of the Commission is to hold all the violators of the law to a strict and severe responsibility. There should be no respecter of persons. The greater the offending official, the sterner should be the retribution. This class of property must be made amenable to the law and subordinate to the public interest, and if the law is not ample and flexible enough to put a stop to abuses and oppression, then strengthen it as experience shows the need.

DURING last year 185 carloads of Lima beans were shipped from Santa Barbara to Boston.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Calaveras Notes.

EDITORS PRESS:—Hilly and rock-crested, overgrown in sections by wild, impenetrable thickets of chemical and chaparral, river-worn and torn, Calaveras seems to offer but little to the farmer as a reward for all his toil. There the miner has blasted and drilled, dug ditches and built the dripping weed-grown flume for miles along the mountain-sides that he might pour its ruddy tide upon his ever-turning noisy wheel or against the rocky red-soiled bank; and for all his toil he has found a path that has been golden-lined and even glorious in its bountiful rewards. None who have ever known of the marvelous fortunes unearthed around Angels, Table Mountain, Murphys and other camps, can doubt that the miner has been well repaid for every pound of dirt he has "panned," or every stroke of his shining pick. For notwithstanding the fact that many a poor prospector has returned travel-stained and heart-sick without an ounce of the gleaming dust for which he toiled so many lonely days among the wild unpeopled hills, the successful mining man places an armed guard on the stage that bears away his bullion, and smiles contentedly upon the rugged blast-torn hills that have lifted him to his high pinnacle of wealth and fame.

And yet, notwithstanding all this, the golden empire of the miner is useful to the farmer and fruit-grower as well; and the future will yet bring the harvest of golden fruit that falls to the soil as plentiful and as glorious as the yellow ore that once was buried in it.

In some districts irrigating ditches have made the blossoming orchards spread far and wide over the sunny slopes and in the rich meadow lands, as at Knight's Ferry, Vallecito, Angels and Murphys; but compared with Tuolumne, Calaveras county is as yet but beginning her orchards and grain-fields, and still her natural advantages nearly equal those of her sister county. The enterprise and spirit of the orchardists of Tuolumne have combined to bring the clear pure waters of the mountain rivers into every highland garden, and the Tuolumne ditch, which cost but a few hundred thousand dollars, has inestimably exceeded that sum in the wealth and industry that has flowed from its limpid stream. But not so with Calaveras. The fertile uplands, the rich hillsides that invite the vine and berry, the alluvial swales and the sheltered valleys have failed to attract the attention of the fruit-grower, who only saw the wild thickets and the miner's hills and passed on to other fields. And still again, the mining ditches have chanced to flow in ways chiseled out of solid rock, or through deep echoing canyons instead of near those spots favored of nature for the culture of the peach or grape.

And so when Autumn comes to Calaveras, with her purple haze and dull-red mists weaving the drowsy spell that ever comes with Indian summer around its rugged cliffs and ore-strewn hills, the tangled creek margin and the black-oak forest bear its largest wealth of fruits and brilliant leaves; while in Tuolumne the fall is heralded by a rain of red and golden apples, pears luscious in their mellow perfume, grapes transparent green or dusty purple, and plums that bear the soft rich tinge of amber as well as the bloom-whitened royal hue of purple.

The very air is steeped in the sweet mellowness of fruit and leaf, until the frost-touched trees that seem to blush and tremble with the joy of all this great fruit harvest, hang out bright leaves like blood-red tongues still thirsty for the perfumed breath and juicy shower around them.

But while Calaveras still remains in most sections a striking contrast to all this wealth of tree and vine, unplanted and unplanted, she still has many little homes and gardens to be proud of in those less-favored districts.

About four miles southeast of Copperopolis, on the O'Byrnes ferry road to Sonora, Mr. L. C. Honey has found a small tract of land in the valley that slopes brokenly for several miles from the foot of Table Mountain, which has proved to be richly fertile and encouraging. Out of this 160 acres, 100 of it make excellent farming land which in seasons of prosperity will yield about 25 bushels of barley to the acre of winter-sown and 35 bushels of summer-fallowed land.

The climate of this region is almost unequalled for fruit-culture. Situated at an altitude of over 2000 feet above sea-level, it has the delightful sharpness to the atmosphere which gives the fruit the rare flavor found in mountain districts, and yet the danger from frost blight is very little. No gardener yet has lost the whole product of his year's labor in one night, as has been the case in many localities where the climate is no more severe than on this sheltered western slope, although peaches have sometimes suffered in size and flavor from this cause in the more unfavorable seasons. Yet this rare affliction is more than recompensed by the excellence of the fruit grown, often for years in succession, without the slightest tinge of harm from the keen mornings.

On Mr. Honey's place a fine orchard has been planted, since he has several natural springs that yield water the year around, capable of irrigating 200 fruit trees. As yet he has ob-

tained no great fruit harvest, the trees being scarcely old enough to bear abundantly, though he has ample promise of rich returns in the future.

Situated almost directly in the warm belt that reaches its mildest and balmiest at Knight's Ferry, and causes that little place to blossom forth with billows of fragrant tropic bloom, Mr. Honey thinks his place especially adapted to the culture of orange, walnut, olive and almond trees. Accordingly he has planted quite a number, intending them more as an experiment than anything else. He expects to raise them without irrigation after the first year, believing that when the soil is not too dry naturally, this method produces sturdier trees and finer fruit than when they are artificially watered through the dry season.

Mr. Honey has inclosed his land by wire fences, which he finds has proved very satisfactory in turning away stock from the grain-field.

He has little trouble at harvest-times in securing his crop rapidly and thoroughly, although neighboring farmers in this foothill country, where it does not pay to keep elaborate and costly machinery for harvesting purposes, often find it difficult to get their grain safely cut and stored away if bad weather threatens. This advantage over others Mr. Honey finds in the

Australian Stripper Harvester,

Which also yields a fine income on other ranches in harvest season after his own crop is disposed of. This machine was manufactured by Mr. L. Smith of Okdale, Stanislaus county, though as yet there are but few in use in this State. In Australia they are very much in favor, however, and are extensively used. Relatively speaking, they are inexpensive machines, costing but \$450, which indeed is soon saved in grain and expense in running. The stripper both strips and thrashes in the field at the same time; it gathers no straw and does its work cleanly and thoroughly.

In appearance the stripper is quite a small, compact machine, made very strong and ready for immediate use at any time. The grain is stripped from the stalk by means of a comb five feet eight inches in length, which instantly transfers the combed heads to the beater or reel running at the rate of 600 revolutions per minute. Here grain in all its stages of being thrashed is mingled together and steadily beaten till the round hard kernel of grain, perfectly whole and free from chaff, is admitted to the box, which carries about 20 bushels of thrashed grain at a time. The straw and chaff made in thrashing fall to the ground beneath the stripper in the progress over the field. It can be saved if desired.

In this harvesting implement Mr. Honey believes many small farmers have supplied a long-felt want. The expense of running it is 10 per cent cheaper than other machines, and yet it is perfectly complete in itself, answering every purpose, and in a short time transforming a field of heavy-headed nodding grain, ripening only too fast beneath a glowing sun, into a thinly covered, parched and forsaken land of cracking golden stubble. MAY BLOSSOM DAVIS.

Evergreen Millet or Johnson Grass.

EDITORS PRESS:—Having seen in your issue of Jan. 19th inst. something about Johnson grass, or evergreen millet, I am led for the possible benefit of the writer of the article in question to give a little of my experience with that "valuable grass."

Having some six years since seen in an inclosure of a friend of mine something in a manner resembling bamboo, or a very tall, dark, rich-colored, fine-leaved corn, I asked what it was, and was answered that it was evergreen millet, a forage plant of great value, and flourishing abundantly where no other known plant will grow and without cultivation or irrigation, needing neither even in dry and barren soils, filling the soil with succulent, nourishing roots, and yielding from 5 to 10 tons per acre of a fine, rich quality of hay.

So my friend having thoroughly enthused me, and having the proof of his statements before me in the luxuriant growth of the millet before us, I resolved to try it for myself. Learning from him where I could get seed, or rather roots (for the seeds were not always reliable and the roots were), I sent, and at a cost of about 40 cents per pound procured 25 pounds of roots, which I planted according to directions, and as they did not grow as fast as I thought they ought, I tried irrigation and cultivation, and found that this stimulated growth, and so, for the first season, I raised a fair crop. Where I tended it best and watered it most it grew some six feet in height, but I could only raise one crop of that style; all succeeding growth was stunted and growing along the ground. It was almost impossible to harvest, and not amounting to anything in quantity, although stock eat it readily.

I have, since its second year with me, been trying to get rid of it, but the more you tear and break it up and tear up the ground also the more it flourishes, but I have never found it to amount to anything, as there has never been sufficient top growth to pay for gathering, and the same land will give a better and more paying yield in grain or corn.

The soil was light sandy loam, some of it quite sandy, and some heavier and more clayey, the only difference being that in the stiffer soil the roots did not "run" so much as in the sandier, the top growth being the same in both,

and where I had kept the ground well soaked with water, the roots (juicy white roots the size of one's thumb) penetrated deeper than I wanted to dig.

In my hay-field, from the roots of my "nursery" I planted some six acres, sowing grain with the roots, and I found that growing among the grain it would grow upright and admit of being mowed along with the grain, and for three years I replanted the same ground, or the most of it, but to no avail, and I gave it up finally and to-day no vestige of it is to be found where I tried so hard by replanting in my hay ground and even harrowing the ground thoroughly when I had my hay crop off, so that I find that it is of comparatively no value for hay or grazing; that it becomes worthless, or, to speak more correctly, more worthless each year, until, as in my case, where the land is cultivated in summer, it finally disappears altogether, and where it is cultivated as in summer crops, it lingers along, neither doing anything itself nor suffering anything else to make good growth, and so is an unmitigated nuisance, which is impossible to be gotten rid of in any way that I know of or have tried but by letting the land go for pasture or hay for even two or three years.

For proposition four of your Mendocino correspondent: "Would it pay to plant it on average corn land if one did not need it for anything else?" Perhaps for hogs it would to consume the roots, as they could hardly "root it all out;" but I don't believe it would, as it has been tried by several in this neighborhood and has proved unsatisfactory.

If the ground is thoroughly cultivated and loosened, the roots will extend in all directions, rotting freely, however, and so thinning themselves, but standing the heat and drought, and growing, but never enough to make it desirable or a paying crop, while without cultivation it will die out in from two to three years.

Lodi, San Joaquin Co. T. B. GEFFROY.

THE DAIRY.

Grass for Alkali Soil.

EDITORS PRESS:—There has been a great deal written and much thought expended on what will make our alkali soils available. Professor Hilgard has written a treatise on how to neutralize alkali soils and make them productive, and I think his method was in the liberal application of gypsum.

That would involve a good deal of expense, and would it be lasting?

We want something that will not entail much expense and is sure of part of a crop if not a full one. On my farm on the right bank of the American river, 1½ miles above the junction with Sacramento river, I have a piece of very bad black alkali soil. I had despaired of making anything grow but an alkali prickly weed which nothing would touch.

Greatly to my surprise, in the latter part of the summer a few years since, I saw some kind of a grass taking possession of this alkali spot and choking out the worthless weed. On further investigation I found it growing up and down the bank of the river.

It was such a surprise to me that I sent a sample of it to Prof. Hilgard of the State University (in 1885), asking for a name, its home, nature, and its worth as a forage plant. He stated that it was common in Oregon and the Territories thereabouts, and was known as rye grass or wild rye, and sometimes called "cow hay" to distinguish it from the sweeter kinds. It propagates itself very rapidly from joints on runners that penetrate the ground in every direction, about three inches below the surface.

These runners have hardened points on them similar to a carpenter's scratch awl, and do not yield right of way to anything less hard than themselves. They are frequently found with one runner grown right through another at right angles. These runners are about the size of a carpenter's chalk line, and in sandy soil will grow to great length. Roots are formed at every joint, which are two to three inches apart, and every joint throws up a spear of grass. This grass grows well in timber land where the underbrush is not too thick. It has a slender stock with plenty of leaves or laterals. It is the first grass that comes up in the fall after the rains, and in fact it can hardly be said it ever stops growing. The seed is very small and does not pay to gather, for the way to propagate is by cutting up the roots or runners in short pieces and sowing in drills or broadcast. It can be very easily killed out by plowing in hot weather, as the roots do not go deep.

I have seen these stocks grow five and six feet high where supported by the limbs of a tree. I consider this a good stock grass, especially for horses. My stock, both horses and cattle, when they had access to the rye grass and alfalfa, kept one equally cropped with the other. The rye grass has another good quality that all forage plants do not possess. Like alfalfa, when not over-cropped, the tops can be fed off, leaving the bottom six to eighteen inches high to ripen or cure. These bottoms or stubble will stand up against rains and storms and furnish good picking for stock in the winter.

I would not advise the planting of this kind of grass, except on alkali soils. I will show this grass to any one wishing to investigate, or who has alkali soil.

Sacramento, Cal.

D. FLINT.

THE FIELD.

The Movement Against the Squirrels in Contra Costa County.

The squirrel meeting held at Oak Grove school-house, Ignacio valley, Jan. 29, was well attended, and the action taken by those present threatens dire destruction to the troublesome squirrel. The meeting was called to order about half past one by Mr. A. L. Bancroft, who was chosen chairman. B. H. Bancroft was chosen secretary. The chairman briefly stated the objects of the meeting, dwelling upon the damage done by these pests, and finally asked that those present give their experiences in squirrel killing.

Mr. George Westcott had tried smoking with sulphur and green weeds, but found this method rather expensive both in time and material.

Mr. Charles Lohse had tried poisoned barley with some success. He produced a letter he had received on the subject under discussion from Mr. Vincent Hook of Pacheco. The letter was read by the secretary, and following in the manner of poisoning Mr. Hook has adopted and advocates: "Take about one gallon of clean, dry wheat and add one ounce of pulverized strychnine and mix thoroughly. Take one cup of white sugar and add water enough to simply wet it. Then add this to the strychnine-coated wheat and stir until the wheat regains its original color; let dry and put out. You can, if desired, add 3 or 4 drops of oil of rhodium. You can readily see the advantage of this over all others, because you have the poison completely disguised. In my opinion, there is but a short period in which to do this work effectually, and that is from the first of September to the middle of October. My reason for thinking so is this: I have noticed that the squirrel will be found with his pouch full at that season of the year, which goes to indicate that he is busy storing up for winter. You may put out a bucket full of wheat in January, December or February, and he won't pick any down into his hole for the reason that it is out of his line of business at that time. He may eat some and get killed, or he may not touch it. My opinion is, that it is useless to try to exterminate them unless there is some way of getting at the hill lands used for pasture purposes. I can kill all the squirrels on my ranch, but until there is some way found to totally obliterate the hole, it will sooner or later be occupied again."

Mr. J. T. Walker put in a good word for bisulphide of carbon, saying he had tried 15 gallons of it in the months of March and April with great success. He saturated balls of cotton batting with the stuff, put them into the holes and then closed the latter up.

Mr. C. Sharp, however, said that the bisulphide of carbon was no good in the hills. He had used some smokers with little success.

W. L. McDonald used bisulphide of carbon and had great faith in its destructive power. His success with it has been great. He made balls of cotton batting about the size of a walnut, put them into a glass jar and poured the bisulphide upon them. When thoroughly saturated, he placed the balls into the burrows as far as he could get them and closed the holes securely.

A. N. Wright of Concord believes in strychnine, which he has used with excellent effect. Mr. Wright claimed to have a mixture which made the squirrels eat the poisoned wheat. He was so earnest in the praise of this mixture that the other members of the meeting became very anxious to know its ingredients. Mr. Wright was much less anxious to disclose his secret. The chairman asked whether Mr. Wright would take \$10 for his recipe. Mr. Wright would not, and the value of the mysterious mixture grew in the opinions of those who wished to possess it. Mr. Wright would take \$50, however, and a committee was appointed by the chairman to give Mr. Wright's mixture a test, and, if it proved satisfactory, to buy it. The amount of strychnine used by Mr. Wright was one ounce to three quarts of wheat. Mr. Wm. Caven said Mr. Wright's mixture would do all its owner claimed for it. The committee appointed to test Mr. Wright's recipe consisted of Messrs. C. Sharp, Charles Lohse and H. B. Gregory. Mr. Nathaniel Jones, H. B. Gregory, and others made some remarks upon the subject under discussion and were attentively listened to. Most of those present seemed to be decidedly in favor of the use of poison for the extermination of squirrels, and a canvass of the opinion of the meeting resulted in nine votes for poison and one for bisulphide. About this time J. H. Wheeler, chief executive officer of the Viticultural Commission, arrived with Mr. E. B. Smith. Mr. Wheeler, who is a manufacturer of bisulphide of carbon, at once launched out upon the merits of the article and created a very favorable impression. He spoke of its efficacy and the safety with which it might be handled, and also claimed that it was most economical in the long run. Mr. Wheeler went through a good deal of questioning and offered to sell in 100 gallon tanks at wholesale rates.

Mr. James Foster of Walnut Creek then arose and suggested that a committee be appointed for the purpose of finding out whether land-owners could not be compelled to kill the squirrels on their respective places. A Committee on Legislation Against Squirrels was

chosen as follows: E. B. Smith, James Foster, A. L. Bancroft and W. Caven. E. B. Smith was elected chairman of the committee. An agreement was then drawn up, the signers of the same pledging themselves to make relentless war upon the festive squirrels. Following is the agreement:

IGNACIO VALLEY, Jan. 28, 1889.
We, the undersigned, farmers, orchardists and land-owners of Ignacio valley and vicinity, do hereby agree and promise to faithfully and promptly take the steps decided upon by the meeting held this date for the purpose of securing uniformity of action in exterminating ground-squirrels in our neighborhood, viz.: We will each of us have all of the land owned, farmed, pastured or used in any way by us gone over each Monday, commencing February 4, 1889, to, and including, Monday, December 30, 1889, and put out poisoned grain in or near each open squirrel-hole; or smoke each open squirrel-hole; or inject bisulphide of carbon into each open squirrel-hole found on our respective places for the purpose of destroying squirrels, and for the faithful performance of this we give our word and pledge our honor. Whenever a Monday within the dates named above proves to be rainy, so that this work cannot be done, we promise to do it the first day thereafter when it does not rain.

The following committee was appointed to secure signatures to the above agreement and to see that its provisions were carried out: H. B. Gregory, D. F. Majors, B. H. Bancroft, S. J. Soto, O. Sharp and Mr. Billings.

After some informal discussion, the meeting adjourned until Feb. 4th, at 2 o'clock P. M., when the reports of the committees will be received and other business attended to. Others present besides those mentioned above were Messrs. John Larkey, E. Randall, L. Moore, Benj. Hodges, Capt. Darham, James Slow and T. A. McMahon.—*Martinez Item*

FRUIT MARKETING.

The Future.

EDITORS PRESS:—The California Fruit Union and the Dried Fruit Association have held their annual meetings, and the reports of their secretaries show a vast amount of fruit as having been moved and marketed. But of dried fruit, while much of it has been shipped to Eastern markets, yet of the amount so shipped, much remains unsold and market flat. Now why is this? One reason advanced is that Eastern dealers carried over a large stock from the preceding year. There may be some truth in this, but if so I think this alone could not account for the continued depression of Eastern fruit markets. An over-supply of marketable products of one year, unless supplemented by full supply in the succeeding year, would not long tend to depress the market. The fact is, that while California did not of itself produce an over-supply of dried fruit the past year, the fruit products of the Atlantic States were most abundant. These products seek a market in their own centers of consumption, to the exclusion of California productions. The producers of Eastern prepared fruits can and do sell at a profit at prices which are ruinous to the California producer. The California producer is handicapped by high-priced labor and heavy transportation charges, from all of which the Atlantic producer is exempt. The Eastern producer by the aid of evaporators produces a desirable fruit for consumption, as does the California producer. Consequently in the matter of dried apples, dried peaches and dried plums and berries the California producer is being driven from the market, or his products are sold at prices below the cost of production.

But will the Atlantic producer be able to continue to fully supply the Atlantic markets in the above-mentioned fruits? Why not? They have the climate, the land, the necessary labor element and the evaporator. They find a profit even at present going prices. During the last few years Eastern orchardists have, and still are, largely extending their orchard area, thus keeping pace with the demands of an increasing population. Their fruits are now on sale in every town and hamlet in Montana, Wyoming and Colorado, to the exclusion of California products.

In the matter of apricots, figs and olives, California may for a time have the exclusive production, but dried apricots will have to compete with dried peaches in the Eastern markets, and the California prune with the French, the German and the Turkish prune. My own opinion is, that the California prune-grower can successfully compete with the foreign grower in the Atlantic markets, and eventually drive him from our markets. So I think will the California raisin-grower finally expel the Spaniard from our markets.

With low-priced raw fruits (by low priced I mean such prices as will return a living profit and no more to the California orchardist), I know not how far the business of fruit-canning may be successfully extended. The canners themselves say it is almost limitless. But the canners must have the choicest fruit. This being so, a large percentage of the crop must, if possible, be converted into dried fruit which, as I view the outlook for a future market for dried fruits, promises nothing or next to nothing to the grower in California who pays ruling rates for labor. Such products of the orchard as will not pay for manipulation must necessarily perish in the orchard. If our orchard products are to be made into dried products, in

view of future markets for dried fruits, the price of labor must be materially reduced.

Now as to Marketing Green Fruits

In the Atlantic cities. In the first place, experience has proved that it is a waste of time and money to send to those markets anything but the choicest fruits, thus leaving all inferior fruits still to be disposed of, if possible, in some other way. Here we are again face to face with the question how to dispose of such portion of our orchard products without loss. If the orchardist must bear this loss, can he sell his choice fruits at such a price as will compensate him for such loss and also return him a reasonable profit on his investment? Let orchardists answer this query.

I will not undertake to say in advance that all our surplus choice fruits can be sent East to a remunerative market. Trial and enterprise must determine that.

Now as for Oranges.

I do not know how cheaply oranges may be grown in California at a profit, but I have before me the reports of many auction sales of both Mediterranean and Florida oranges in New York and Chicago on a general average of about 1½ cents each. This, I judge, will return to the Florida orange-grower not more than three-fourths of a cent each for his fruit, the remaining half cent being absorbed in charges. Can the Californian grow oranges profitably at three-fourths of a cent each? Let him answer. The orange business is being rapidly extended not only in California, but in Florida and also in Mexico, where the tree grows almost spontaneously and without any special care. These Mexican fellows are handicapped by a duty of 20 cents per box, but freight from Hermosillo and Guaymas is little more to New Orleans or Chicago and St. Louis than it is from Los Angeles or Riverside. The Mexican or the Florida orange is equally palatable to most people's taste with the California orange, and just as pleasing to the sight. If produced in sufficient quantity, they could be sold, and still with a profit, so as to drive the California orange from all our markets. In view of these facts, does it not behoove those of us who contemplate going into the orange culture to pause and consider? True Oregon, Washington Territory and Idaho, filling up as they are with an enterprising population, will consume many oranges and will naturally look to California as their nearest point for supplies, but the Pacific islands and Mexico have the advantage of cheap labor and cheap lands, together with easy water communication, and should there ever be a sharp competition for retaining the orange market of the Pacific States and Territories between the places named and the California orange-grower, I opine he would find himself driven from the Pacific markets.

WM. C. BLACKWOOD.

Haywards, Jan. 28, 1889.

[Judge Blackwood takes a rather more doleful view of the future than necessary. It is just as well, however, to look on the dark side occasionally to prevent over-enthusiasm—a brake is a good thing sometimes on the lightest vehicle. If Judge Blackwood's statements lead people to think on the subject, they will be a general benefit.—EDS. PRESS]

THE VETERINARIAN.

Splenic Apoplexy and Texas Fever.

EDITORS PRESS:—In your issue of January 19th, under the heading Veterinarian, concerning the difference between splenic apoplexy and Texas fever, I wish to say that it is necessary to look for a more diagnostic symptom than the color of the urine or the presence of tick.

Bloody urine may be a symptom of either anthrax, red-water or Texas fever; again, an animal suffering from any of these diseases, particularly Texas fever or anthrax, will seek solitude in the scrub and there become covered with ticks. In fact, it is well known that all animals in a more or less debilitated condition are liable to be infested with parasites.

In splenic apoplexy you always find the bacillus anthracis, which any microscopist can demonstrate in a few minutes with a cover specimen from the blood of the spleen. In Texas fever no pathogenic germ has as yet been isolated. The spleen, or—as it is commonly known—the milt, is enormously enlarged in both diseases, but in splenic apoplexy the pulp or parenchyma of the organ is so disintegrated that by hanging it perpendicularly from one extremity, the pulp will gravitate, like sand in a sand glass, to the other end, while in Texas fever it retains its consistency more or less; further, in splenic apoplexy all the tissues are stained with a dark, non-coagulable blood, while in Texas fever the flesh is of a bright, yellowish-red color, and the blood almost brick-red and highly coagulable. The main macroscopical diagnostic symptom is found in the liver, which in anthrax is enlarged, of a blue-black color, and on section large quantities of black uncoagulable blood will escape, and the gall bladder is in a normal condition. In Texas fever the liver is enlarged, of a red brick-dust color, the surface of the organ being covered with yellow straw-like streaks due to the injection of the

bile capillaries, the gall bladder is moreover enormously distended and full of a dark-green inspissated bile. There are numerous other differences, but the above are sufficient to determine the nature of the diseases in question.

Your correspondent also recommends that all animals dying of anthracoid affections be removed from the pasture before post-mortem examination. Why carry the disease to another part of the ranch, and likewise imperil the lives of the attendants should the disease prove to be anthrax? Would it not be more rational to make the autopsy where the animal dies, cover it with fagots of wood and coal oil, and burn, the ashes to be buried with quicklime six feet under ground? Coyotes are very active carriers of contagion in this state, but they will not touch anything which has been saturated and burned with coal oil.

I may explicitly state in writing this letter that I do not consider my qualifications to arise from any superiority or perspicuity of intellect, but from the intense interest I have taken in the subject of cattle diseases in this State, from my conversation with Mr. Mercer, the Government agent who visited this coast, and my own observations since that time as a medical man, I have had unusual facilities for acquiring a practical knowledge of the subject.

San Francisco

WM. G. HODSON.

Distemper in Dogs.

EDITORS PRESS:—Several parties have recently lost some valuable dogs from distemper. Advice from Dr. Bizard on the disease would be thankfully received.—A. L., Santa Rosa.

EDITORS PRESS:—Distemper is a specific fever peculiar to the dog, which has very varied manifestations. It runs a definite course, and all that can be done is to direct the course of the disease and to aid nature by judicious nursing. Those animals that have least physic make the best recovery.

There are at least three well-defined types of distemper, which may either remain distinct or may be present together as complications of one of the other. These are the pulmonary or lung form, the enteric or bowel form, and the nervous.

The first is the most common. The symptoms first observable are general dullness, refusal of food, a slight cough, injection of the visible mucous membranes, dryness of the nose, with a watery discharge from both it and the eyes, together with considerable thirst.

From this point we may branch off into any of the forms above mentioned. The cough may increase and the discharge from the eyes and nose become more copious and of a different consistency, until it is of a thick, greenish-yellow, that smells so foully as to render the presence of distemper about the premises detectable by the nose alone. (This is in extreme cases.)

Where the lung structures are invaded, the cough is soft; where confined to the air passages, it is dry and hard in its character. Dysentery often accompanies this, the discharges being foul-smelling, bloody and badly colored.

From this point the patient wastes to a mere shadow, and looks like a living skeleton, the emaciation being particularly rapid. Sometimes we get a series of fits, which end in the establishment of a peculiar twitching of the muscles known as chorea, or St. Vitus dance. This is the nervous manifestation. The liver is frequently involved, and it is the especial trouble with the hound breeds, greyhound and foxhound puppies often perishing from liver complications.

In the absence of a specific remedy, and with so many varying types, all that can be done is to treat the symptoms as they arise. The dog that has had rational treatment prior to the attack, i. e., that has been cleanly housed, plentifully exercised, and not overfed, suffers less than either the neglected or the pampered.

Treatment.

On the first symptoms being observed, the animal should be removed from other dogs to a place that, while warm and dry, has a plentiful supply of fresh air without draught. Give plenty of fresh water and change it frequently, as it soon gets contaminated with the discharges.

If there is constipation, a dose of castor oil and syrup of buckthorn is useful, but, as a rule, purgatives, or anything likely to increase the debility, must be carefully avoided.

Where the ordinary form, as indicated by fever and a discharge from the eyes and nose, is present, give chlorate of potash, 10 grains, with one drop of Fleming's tincture of aconite in a little water three times a day. Where the liver is markedly involved, give mercury and chalk, three grains; Dovers powders, two grains; quinine, one grain; James powder, two grains; with exipient to form a pill. These pills are always useful where the symptoms of any particular form are not marked.

Where there are fits, castor oil and injections with moderate doses of bromide of potash are indicated, and if the common sequel chorea appears, strychnine and iron are the most reliable remedies.

To keep the animal warm and dry and to combat the debility, are the essentials of the highest importance. As a rule, very little food will be taken, but milk, eggs, strong beef tea, arrowroot, port wine, or brandy, must be given according as they are indicated. When dysentery supervenes, arrowroot, brandy and eggs are exceedingly useful. Nursing is a great

thing, and unremitting attention, both night and day, has saved many a dog that medicine was powerless to cure.

A. E. BUZARD, M. R. C. V. S. L.
11 Seventh St., S. F.

HORTICULTURE.

Horticultural Hints.

EDITORS PRESS:—I send you the following notes which I hope may be of interest to some readers:

To Heal Wounds in Trees.

In pruning, it is sometimes necessary to remove a large limb. If the stump or exposed wound is left unprotected, the wood dies into the heart, and in a few years the tree is dead. Nothing heals so readily, and is so cheaply prepared, as a paint made by boiling linseed oil (free from cotton-seed oil) one hour, with an ounce of litharge to each pint of oil, then stir in sifted wood ashes until the paint is of the proper consistency. Pare the bark until smooth, as the fuzzy edge left by the saw will cause it to die back. Paint the wound over in dry weather, and if the wound is very large, cover with a gunny-sack. I have healed over a stump one foot in diameter in this way, the wood keeping hard and solid.

Grafting Wax.

The following mixture will be found "just right," neither so soft as to run in hot weather nor too stiff to work, but will dry like paint and therefore can be depended upon:

Rosin, 4 lbs.
Beeswax, 1 lb.
Boiled linseed oil, 1 pint.

Melt together, and when sufficiently cooled, pull like taffy and form into balls. Be sure that you have linseed oil, as the greater part of the linseed oil now sold is heavily adulterated with cotton-seed oil, which melts, like so much lard, in the sun.

What Apples to Grow.

"What varieties of apples do best in high altitudes?" asks one of your subscribers. If the ground is moist and the fall months cool, Rhode Island Greening; but in warm localities it shrivels or wilts. The Porter, than which there is no better keeper, and the Swaar crowd the Yellow Newtown Pippin for "yellow apples." The Bellflower "skins" so easily that it does not make a good shipper, otherwise it is a fine apple. But most apple-eaters in their choice of apples are like the Dutchman with his barn who, when asked what color he'd have it painted, replied: "Any color so it's red." Size and color determine the price and market of the red apples. Baldwin, Winesap and Esopus Spitzenburg leave little to be desired. In fall apples the grower can suit his fancy. The Alexander for size and color is preferred. Summer and fall apples are poor keepers, and come into the market when it is glutted, so that the winter apples only should be planted in any quantity. While all apples do well in cool altitudes, it is only necessary to stencil a box of apples "Baldwins," or "Spitzenburgs," to make them "go," and the fewer varieties you have the less expense and trouble in storing.

To your subscriber who wants to know "How to Build a Barn," I would advise the purchase of "Barn Plans and Out-Buildings," \$1.50; "Harvey's Barns, Out-Buildings, and Fences," \$4. Both books can be furnished by Dewey & Co. at the prices named.

Murphys, Cal.

E. H. SCHAEFFLE.

Apples in the Mountains.

EDITORS PRESS:—I saw in the RURAL PRESS of January 26th a question about apples. As I live in the Sierras at an altitude of 2300 feet above sea-level, where snow falls once in awhile, I thought a few words from me would not come amiss. My observation about apples is, that the Esopus Spitzenburg is the best for this region. It is a vigorous grower, a hardy tree and a good bearer. The fruit is of elegant shape, beautiful color and fine flavor. Next comes the Ortley, which is a splendid apple of oblong shape, good size, and for quality can't be beat. The Baldwin is a good apple, deep red and of good size, but it is a shy bearer with me. The Swaar is a fine apple, prolific bearer; tree hardy. These I can recommend, for I have tried them all and many more.

M. V. ROE.

Nimshew, Butte Co., Cal., Jan. 28, 1889.

EDITORS PRESS:—In reply to "W's" inquiry in your issue of Jan. 26th, with regard to the best variety of winter apples grown at an elevation of from 3000 to 4000 feet above the sea level, would say that we have had the greatest success with the White Winter Pearmain and Newtown Pippin, and they are generally considered to be the best in this locality. We also have the Winesap, Ben Davis, Blue Pearmain and Red Spitzenburg, all doing well and good keepers. We are about 4000 feet above the sea, and have more or less snow every winter, the mercury sometimes getting down to zero, but not often. We also grow successfully plums, prunes, strawberries, raspberries, blackberries and gooseberries. Would be glad to hear through your columns from other mountain orchards.

WM. P. CATHEY.

Darrah, Mariposa Co., Jan. 30, 1889.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of Granges to the Pacific Rural Press are respectfully solicited for this department.

Greater Inducements for Subscriptions.

NEW RATES FOR PACIFIC RURAL PRESS.

Annual subscription, in advance, 12 months for..... \$3.00
If paid in advance, 10 months for..... 2.00
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Trial subscriptions for three months, paid in advance, 60 cents.

Official Endorsement.

In consideration of a certain contract entered into this day between Dewey & Company, publishers, and the California Patron Publishing Company of San Francisco for the publication of a weekly Grange edition of the PACIFIC RURAL PRESS, and the California Patron as a monthly,

Resolved, That the Executive Committee of the State Grange of California hereby designate and endorse the PACIFIC RURAL PRESS as the weekly organ and the California Patron as the monthly organ of the State Grange of California.

Salinas Grange Again in the Field.

MESSRS. EDITORS:—Salinas City was visited on the 30th ult. by A. T. Dewey, Secretary State Grange, A. P. Roache, Deputy State Master, and E. Z. Roache, Master of Watsonville Grange. They came pursuant to appointment of a meeting for the revival of Salinas Grange. This announcement for the meeting on that date was not propitious, it being one of the days on which the great sale by Briggs, Fergusson & Co. of the Buena Vista Rancho took place, which attracted some who should have been present. The meeting had, therefore, to be deferred until Friday afternoon, following the day of organization of San Lucas Grange.

Perseverance usually wins, and accordingly the last named meeting proved successful. The Grange was reorganized with 15 members, mostly old veterans in the cause of equal rights, who were frank to confess their mistake in ever allowing their organization to collapse.

Farmers here, as elsewhere, have their grievances, which can never be righted effectually by the "stand-along" policy they have practiced in the past. As an instance: The Central Milling Company of Salinas buys the farmers' wheat at San Francisco prices less the freight, and manufactures it into flour, which it sells consumers at \$5.40 per barrel, or about \$1 above San Francisco prices for the best article. Co-operation is what is needed to rectify such evils.

There is ground for the belief that Salinas Grange is in earnest now, and will rapidly increase in numbers and influence for good.

She elected a very efficient set of officers for the ensuing year, as follows: W. J. Hill, M.; Wm. Robson, O.; Geo. Abbott, L.; Wm. King, S.; Mr. Treat, A. S.; U. Hartnell, C.; I. Tucker, T.; O. A. F. Schuchard, Sec.; Geo. Hunter, G. K.; Mrs. S. B. Treat, Ceres; Mrs. M. Williams, P.; Miss Victoria Archer, F.; Miss A. E. Williams, L. A. S. F. B. L.

[Having personally met a number of the above-named officers, we are very confident from their apparent ability and good reputation in the community in which they have long been known, that Salinas Grange will again become one of the best and most efficient in the State. It is backed by a splendid farming district and population. Perseverance and a fair share of activity on the part of those who have taken this new and commendable start will give them a harvest in due season of which every brother and sister may be proud. We recommend that they make an effort to secure the premium offered in this issue by Worthy Master Overhiser. —EDS.]

SELECT DEPUTIES.—As before noticed, Worthy Master Overhiser desires the Masters of subordinate Granges of each county or district to confer and recommend some Patron for appointment as Deputy Lecturer for the current year. Let this matter be attended to as soon as practicable. All Deputies are desired and expected to continue in their official stations and duties until other appointments are made, the same as if this notice had not been published.

FOR SOUTHERN COUNTIES.—Bro. A. P. Roache has been appointed Special Deputy by Worthy Master Overhiser to co-operate with General Deputy I. C. Steele in some of the southern counties. He commenced nobly by putting new life into two good Granges last week.

San Lucas Grange.

MESSRS. EDITORS:—Deputy State Master A. P. Roache of Watsonville and E. Z. Roache, Master of Watsonville Grange, accompanied by the writer, visited San Lucas on the 31st ultimo and there instituted a Grange of Patrons of Husbandry consisting of 22 members, 11 women and 11 men. The following were elected and installed as officers for the current term: Wm. Griswold, M.; Thos. Ross, O.; J. A. Trescony, L.; Benj. Wood, S.; O. H. Perry, A. S.; Mrs. V. V. Winchell, C.; J. N. Beach, T.; S. Sherwood, Sec.; S. A. Bryan, G. K.; Laura Wood, P.; Nita Bellah, F.; Mrs. J. H. Newlove, Ceres; Mrs. M. E. Beach, L. A. S.; Angie Wood, Organizer.

The new organization decided to have its next meeting on the afternoon of Saturday, Feb. 16th. It is believed that the outgrowth of this step will be a strong and prosperous Grange before the lapse of the year. The zeal of the members may be estimated from the fact that, notwithstanding some resided from five to ten miles away, they were on hand at the nine-o'clock (P. M.) meeting to complete the organization.

It is believed that the Grange was peculiarly fortunate in the selection of its officers. Wm. Griswold, who was chosen Master, is an old resident of Long Valley, where he still owns a farm. He is said to be a good presiding officer and a deservedly popular citizen.

San Lucas, though only about two years old, is the most important center between Salinas City and San Miguel, a distance of nearly 100 miles. There is more fine agricultural land tributary to it than any other point, and, in the nature of things, it must, ere long, become a large town.

The principal settlements in the vicinity are Long Valley and Pine Valley to the east and Paris Valley, Jolon and Hardscrabble on the coast side of Salinas river. The Trescony farm, consisting of many thousands of acres, lies mostly on the opposite side from town. It is a magnificent tract, upon which there are sown this year over 16,000 acres with grain, and the prospect is good for a large yield.

Taken all in all, it is difficult to conceive of a neighborhood that stood in greater need of the advantages which the Grange is capable of furnishing than San Lucas.

Brothers and sisters of our noble Order, be of good cheer. Another link has been added to the golden chain that shall bind together in common interest the tillers of the soil. San Lucas Grange is planted in good soil. F. B. L.

[We hope Bro. Past Master J. V. Webster of Creston, San Luis Obispo county, will take a neighborly interest in this Grange. Would advise Bro. Griswold to correspond and invite Bro. Webster to come and instruct a class say of a dozen or so, or as many good applicants as can soon be secured for the degrees.—EDS.]

Death of Mrs. S. E. Walton.

Sister Sarah E. Walton, wife of Bro. B. F. Walton of Yuba City, died at her home on Tuesday, January 29th. Sister Walton had been in feeble health nearly a year, during which time the best medical skill obtainable was employed, and together with her husband and family the summer months were spent in the Eastern States, with a hope that a change of climate and scenery would restore her to her usual health; and no doubt to this and the most tender, indulgent and careful nursing is due her prolonged existence.

Mrs. Walton was a member of the California State Grange and a charter member of Yuba City Grange, where she held many positions of honor and usefulness. Members of the Grange throughout the State will sympathize with Bro. Walton and his children in their affliction.

The funeral took place Thursday, January 31, and was attended by a large concourse of sympathizing friends.

Roseville Grange.

MESSRS. EDITORS:—Our Grange had a splendid meeting on the 2d inst., about 40 members being present. We had an interesting time from 2 to 5 P. M., and many things of interest to the Grange are announced for future meetings. We are going to have a library. A good program is prepared for our next meeting for the Good of the Order, and we have many more things in contemplation to keep up the interest.

We will have a good program laid out each meeting for the next session. We propose to be up with the times and keep the interest up if possible, so that we will always have a full attendance.

We hope and believe that Roseville

Grange has started out to do good for each member, and that its membership will soon be much larger than now. We will let you hear from us from time to time, and assure you that we are no "dormant Grange." Roseville, Feb. 4. E. L. H.

From the Worthy Overseer.

MESSRS. EDITORS:—For several months it has not been my privilege to do any active work for the Grange, the reason for which is well known to many members of the Order. Although unable to work, I have not been unable to read the Patron and the PRESS every week, nor have my love for and interest in the principles of the Grange been at all depressed. It matters not much where a true Patron is, the teachings of the ritual stay by him. Though the sign of recognition be not answered and the sign of distress goes unheeded, because no Patrons are to be found, there yet remains the thought that faith in God, hope of immortality, charity to all that live, and fidelity to self and humanity, do not go unrewarded. Those of us who believe, and practice, that "to be honest, to be just and fear not" are valuable hints to a successful and happy life may find many, though not so many, opportunities to be good Patrons in Arizona as in California.

I read with unabated interest the reports of Grange meetings in the Patron and in the PRESS. If the officers, especially Secretaries, of subordinate Granges, knew how much interest there is taken in their Granges by those members of the Order who have no other means of getting Grange news than through the newspapers—and there is no better means—I am sure we should know more about the subordinate Granges of California. Now that a new year has just fairly begun and most of the new officers are duly installed, it seems to me proper that each subordinate Grange should report at least once a month through the Grange press. To that end this suggestion is made: Let the following resolution be passed by every subordinate Grange under the jurisdiction of the California State Grange:

Resolved, That the Secretary of this Grange is hereby instructed to report in writing, as often as once each month, to the Secretary of the State Grange, all local Grange and agricultural news to which the reading public is entitled.

No member of the Grange should be unwilling to do that much work for the good of the Order. And it will do the Order great good if such work is done.

While on this subject another thought suggests itself, viz.: Why don't the great dailies of San Francisco, in their weekly reviews of fraternal societies, give some attention to the Order of Patrons of Husbandry? Don't their editors know anything about the Grange, or don't they care? It is for me to tell them that the farmers of California are readers; and among the most careful and scrutinizing farmer-readers are Patrons of Husbandry, or, as they are generally called, "Grangers." Let the editor of the "Fraternal World" in the San Francisco dailies bestir himself in behalf of the Grange; if not, he will be left, for somebody else will. The Grange is coming to the front again sure, and this time to stay more permanently than ever before. The principles of the Order, like the famous ghost, "will not down." As long as honest men and pure women till the soil; as long as education elevates; as long as labor is rewarded; as long as freedom is enjoyed on earth, so long will the Grange live, and, we pray, flourish as the green bay tree.

One word more and I have done: The spring is almost upon us. This is the season when all nature rebuilds with new material. The animal world vies with the vegetable in donning a new suit. This then is the time for the Grange to rebuild. Let the young and the old join in this pleasant task of rebuilding the "House of the Grange." Picnics, reunions, celebrations, dedications, concerts, festivals and open meetings ought to be held. Don't weary with long speeches; short ones are better. Variety is the spice of life; therefore have a number of limited-as-to-time speakers. Have song, recitation, etc., and by all means have something to eat. The Grange is, geographically, pretty well represented by its State officers. Let them organize the work in their respective sections, and then call for assistance if any is needed. Plenty of good work and some success can thus be obtained without much expense. I hope to be able to join in the charge on the enemy before many months. That the roll-call at Sacramento next October will show a hundred or more subordinate Granges, is the sincere wish of an earnest, humble Patron. E. W. DAVIS.

Yuma, Arizona, Feb. 1, 1889.

OREGON has a new Grange, No. 222, in Wasco county.

Discouraging to Gamblers.

Assembly bill No. 313, introduced by Mr. Ostrom, Jan. 23d, and referred to the Committee on Agriculture, proposes to amend "an Act to form agricultural districts, to provide for the organization of agricultural associations therein, and for the management and control of the same by the State," passed April 15, 1880, by adding to said Act two new sections, to be numbered respectively 17a and 17b, as follows:

SEC. 17a. The moneys which shall be annually appropriated by the Legislature of this State, for the use of the several societies organized under this Act, shall not be drawn from the Treasury of the State until the close of the annual fair of the district making application for the money, and then only on filing with the Controller of State an affidavit of all the Directors of the associations so applying, substantially in the following form:

STATE OF CALIFORNIA,)
COUNTY OF _____)

(Here insert the names of the directors), being duly sworn, each for himself says: That he is, and during the annual fair of the Agricultural Association organized for district number _____, was a director of said organization. That no gambling was allowed on any of the grounds or in any of the buildings under the management or control of the Board of Directors of said association (other than pool-selling) during said fair, with the knowledge of affiant, and that special pains were taken by the Board of Directors to prevent such gambling.

SEC. 17b. The Board of Directors of each society organized under this Act shall divide the business of their associations respectively into two departments—one to be known as the Stock Department, and the other to be known as the Agricultural and Horticultural Department. And all moneys which shall come into the hands of the Board of Directors for disposition, over and above the salaries of employees and expenses necessarily attending the management of the business of said society, shall be equally divided; one-half to be by the Board of Directors respectively disbursed to the exhibitors in the Stock Department, and the other half to the exhibitors of the Agricultural and Horticultural Department.

Bill No. 314, introduced at same time, would make similar additions to the Act to provide for the management and control of the State Agricultural Society, passed April 15, 1880.

A bill is also before the Legislature to restrict book-making or pool-selling "upon the result of any trial or contest of skill, speed or power of endurance between horses, or between men, or upon the result of any pastime, lot, or hazard," to the race-track, building or other place within whose limits such trial, contest, lot or pastime is to take place or be had, and making violation of its provisions punishable by imprisonment in the county jail for six months and a fine of \$500.

Grange Officers Installed.

ELK GROVE.—E. W. Stickney, M.; D. Gage, O.; Dr. I. Caples, L.; J. D. Hill, S.; Wm. Bader, A. S.; Mrs. M. Caples, C.; F. Stelter, T.; Geo. S. Williamson, Sec.; L. Behlmeier, G. K.; Mrs. Katie Lewis, Ceres; Mrs. Williams, P.; Miss Carrie Carr, F.; Mrs. J. D. Hill, L. A. S.; Miss Happy Foster, Org't.

VALLEY GRANGE.—G. T. Loucks, M.; C. T. McClellan, O.; W. H. Billings, L.; J. Lieber, S.; J. R. Minaker, A. S.; Sister Minaker, C.; E. A. Majors, Sec.; E. W. Williams, T.; B. F. Bebee, G. K.; Sister Williams, F.; Sister Bebee, P.; Sister Billings, Ceres; Jennie B. Loucks, L. A. S.

SALINAS GRANGE.—W. J. Hill, M.; Wm. Robson, O.; Geo. Abbott, L.; Wm. King, S.; W. F. Treat, A. S.; U. Hartnell, C.; Ira Tucker, Treas.; O. A. W. Schuchard, Sec.; Geo. Hunter, G. K.; Mrs. M. Williams, Pomona; Miss V. Archer, Flora; Mrs. S. B. Treat, Ceres; Miss A. E. Williams, L. A. S.

SAN LUCAS GRANGE.—Wm. Griswold, M.; T. Ross, O.; J. A. Trescony, L.; B. Wood, S.; O. H. Perry, A. S.; Mrs. J. A. Winchell, C.; J. N. Beach, T.; S. Sherwood, Sec.; S. A. Bryan, G. K.; Laura A. Wood, P.; Nita Bella, F.; Mrs. E. A. Newlove, Ceres; Mrs. M. E. Beach, L. A. S.

Temperance Colony Notes.

EDITORS PRESS:—The weather is delightful, crop prospects hopeful, and in the union of the Patron and RURAL we are favored as well as thankful, for by referring to these periodicals, we gain the knowledge requisite to our worldly advancement. Looking upon the paper as a special exponent of our fruit interests, we turn to its pages for correct reports, good advice and expressed sentiments of the experienced upon various subjects. A neighbor states they would have lost a valuable cow had it not been for reference to the RURAL PRESS.

Canvassing the question of the fruit-pest law, I find it meets the approval of those interested in fruit-raising in this community, who deem it a wise provision that the powers are vested in the Board of Supervisors, and think that an ordinance against bugs similar to the one passed by the Pomona City Council, will be welcomed.

Nurserymen report their stock of fruit trees well-nigh exhausted, and it seems that rigid sanitary measures must be enforced to protect the coming fruit interests. Our vineyards are as yet healthy and not in any apparent danger of the "mysterious vine disease." A. L. A. Fresno, Jan. 30, 1889.

Worthy Master Carr at Tulare.

Good Plain Grange Talk.

DEAR BROTHER DEWEY:—The Grange met on Saturday and indorsed the steps taken to receive Bro. Carr. A report was read by Sister Nettie Merritt on the steps necessary to establish a co-operative creamery. The report is not sufficiently complete for presentation to the readers of the RURAL PRESS, and in the meantime I know suggestions on the matter by any of your contributors will be gratefully received. It is a subject deserving serious attention, as it is in the direction of labor-saving to overworked farmers' wives. Would not a co-operative laundry be also a good thing to agitate, now that the "heathen Chinese" are going? Washing and ironing are quite an item in household duties.

A petition ordered by the Grange is now receiving signatures asking the aid and assistance of the State in establishing a thorough system of irrigation by water-storage, etc. It is in reality an indorsement of Gov. Waterman's letter published in last week's RURAL PRESS.

Each Grange should prepare a similar petition and press the matter on the attention of the Legislature assembled. A special session for the due and sole consideration of the irrigation question would, I think, be an act of wisdom. It is the most important question in the interest of the State.

Reception of Wisconsin's Master.

On Monday the Grange Committee met Bro. S. C. Carr, Master of Wisconsin State Grange, with Bro. and Sister Nelson Carr at the Cosmopolitan hotel, all looking hearty and in good condition for interesting Patrons of Husbandry.

After a pleasant chat we again met at Library hall. We had a fair audience, but not as large as might have been, owing probably to the busy season of the year, which we very much regret.

An Eloquent and Eminent Address.

After music by the choir Bro. Carr was introduced by W. M. Bro. Moore, our honored guest of California, who then gave briefly a sketch of the origin of the Grange, showing that its success has been largely owing to obtaining the assistance and the co-operation of the sisters. He eloquently described the rise and progress of the Grange in New England, the education of its members and the advancement of their general intelligence. The Interstate Commerce law owes its origin and existence to a Granger—W. W. Adams. Such actions have made the name of a Granger respectable, commanding the respect of even newspaper reporters. Many of the grand things for the benefit of the entire country which can be traced to Grange action was told, and a general invitation was given to all to join that army of workers. He spoke of the ineffectual union of universities and agricultural colleges, that they could no more work together than oil can mix with water. Agricultural schools must be independent and purely agricultural, and he gave various schools and institutions as object-lessons of proof; and the Grangers ask that their sons and daughters can have colleges where they can be taught and educated in horticultural and agricultural pursuits, and come out finished and ready to engage in farming intelligently. He then showed by statistics that the genius of business and those who control the action of the whole country were born and raised on a farm. Still, farmers are not represented in Congress, nor in the Senate, there not being one farmer in the Senate.

On an agricultural committee there were appointed five lawyers, four merchants, two bankers, three farmers, one planter and one of no occupation—men who mostly could not tell a beet from a head of cabbage. So we must send millionaires to make laws for us—men who care no more for farmers than to raise wheat to send over their railroad lines. In our criminal institutions only a very small per cent comes from the farm. The Grange then is an excellent place for the young as well as the old, being an excellent school for morals and general education.

It would be impossible to give all the brilliant points made by Bro. Carr, and all who are going to hear him will have a rare treat, and hope that larger audiences await him than he addressed here, and we feel thankful to Bro. Dewey for the treat.

Rev. Mr. Williams followed in a few pleasant remarks confirmatory of what had been said, and a few very cutting and timely sentences on the cold rule of supply and demand. Then the choir discoursed excellent music.

Bro. Nelson Carr had never regretted being a Granger ever since a Grange was instituted in his county, and through its instrumentality has made his most pleasant acquaintances. Sister Carr regretted not being able to have attended the State Grange at Tulare, on account of sickness; that she never permitted anything or anybody to prevent her attendance on Grange meetings.

Bro. I. N. Wright followed, and among other instructive ideas quoted from the Lecturer of National Grange, that \$100,000 was lost by farmers every year by producing a surplus of wheat, and the nation paid to foreign countries, for sugar, \$100,000—showing that we ought to produce more sugar and raise less wheat.

The writer said a few words, followed by Bro. Toohy, Sister Maples, Sister Stella A. Merritt, Sister Hawkins, Mr. E. M. Dewey, Bro. S. Fowler, who spoke in his usual energetic,

characteristic style, delivering home truths with home thrusts. He called attention to the petition already mentioned and obtained many signatures. J. W. MACKIE.

The Insurance "Trust" Worried.

The Sacramento correspondent of the *Chronicle* says that the Mutual Insurance bills are giving the "trust" lobbyists much concern. On the 1st inst. an attempt was made to set back Senator McGowan's Township Insurance bill which has got through the Senate Committee on Corporations and reached the second-reading file. Wilson of San Francisco moved that the bill be recommitted to the Judiciary Committee, which is accredited with much ability to hold a tenacious grip on bills aimed at the privileges of rich and grasping monopolies. Senator McGowan made a most vigorous fight for his bill, and berated the insurance lobbyists in a manner which must have been highly interesting to these fat and prosperous-looking persons as they glared over the Senate railing at him. The Committee on Corporations, McGowan said, had given the subject of mutual insurance long and serious consideration, and reported his bill back favorably. It had been shown that the best elements of the business and agricultural communities demanded the right to form mutual insurance companies and thus escape the impositions of the insurance trust. "To now wrest it from the control of the committee," he said, "would be nothing less than an insult to the members of the committee. We are told that the insurance gentlemen from San Francisco desire a hearing. The bill has been frequently commented upon, its features explained, and are there not members on this floor who will care for the insurance gentlemen from San Francisco, called by those who know them best insurance thugs? The reason of this opposition is that the bill referred to is a plan for cheap and safe insurance, and will be a formidable obstacle in the way of the stock companies that are now managed by the 'insurance gentlemen from San Francisco,' systematically robbing the people. The insurance-men had better withdraw their opposition to this bill, if not they will find a very stubborn and disagreeable opposition to the nefarious schemes by which they are now conducting insurance business. This opposition will come in all events, but their opposition to this bill is only adding an intensified opposition to the plans of the 'insurance gentlemen from San Francisco.'"

The result of McGowan's vigorous opposition was that the Senate by a vote of 14 yeas to 24 nays refused to recommend the Township Mutual Insurance bill to the Judiciary Committee, so that it still stands on the second-reading file of the Senate.

A Useless Debris Dam.

Engineers C. E. Grunsky and L. F. Bassett have presented reports to the Sacramento supervisors concerning visits of inspection they made, by order of the board, to a restraining dam on Bear river, constructed by the Liberty Hill Mining Co., at a point near Dutch Flat, about 1000 feet below the mouth of Little Bear river.

Engineer Bassett, in his report, says: "The utility of the dam as a work for restraining the flow of mining debris, I found to be practically at an end, as the reservoir, caused by the construction of the dam, is filled with mining debris to a level with the outlet or bottom of the waste way. In fact, very coarse sand could be seen rolling along in the bottom of the water flowing through the waste way and being discharged into the river below the dam; and this, notwithstanding the volume of water flowing at the time was small, in fact, a minimum winter discharge. During time of storms, with a large volume of water flowing through the waste way, there must, necessarily, be a large discharge of the old mining tailings lodged in the canyon above the dam through the waste way."

"At the time the dam was constructed it was represented that the reservoir capacity created thereby would be sufficient to hold the tailings from the Liberty Hill mine for a long period—one engineer estimating the time at eight years' continuous running of the mine and another at 20 years. The mine was operated only a few weeks after this dam was constructed; but three years have elapsed since that time, and yet the dam is already filled to overflowing—the washing down of the old tailings lodged in the canyons during the operations of the mine in the years preceding the construction of the dam having alone been sufficient to effect the result. Had the mine continued in operation, the complete filling of the reservoir would undoubtedly have resulted in a few months, as the tendency is for the filling to take place back from the dam nearly on a level, after which only the coarser portion of the mining debris is restrained."

Bassett further states that he has twice visited the Liberty Hill mine, and seen it in operation, examined the banks, and is of the opinion that fully 80 per cent of the material handled in working the mine reaches the river.

Engineer Grunsky gives an exhaustive description of the dam and of the material of which it is formed. He agrees that the storage capacity of the reservoir is already exhausted. The reports are sworn to, and will be sent to the U. S. Debris Commissioners, now sitting in San Francisco. —*Marystown Appeal*.

Practical Education and Temescal Grange.

Bro. C. J. Cressey was present from San Jose Grange last Saturday evening, and of course Temescal Grange had an unusually lively session.

Bro. Dewey stated that he thought Bro. Carr, Master of Wisconsin State Grange, together with his brother, Nelson Carr, and wife, would be able to reach Oakland after the Worthy Master's reception at San Jose on Saturday evening, Feb. 9th. In anticipation of such an event, Temescal Grange voted to hold a special meeting at the residence of Sister Mary S. Smith, 1325 Chestnut street, near Adeline station, on the broad-gauge railway, Oakland, at 7:30 o'clock, to which the members of Eden Grange, the Contra Costa county Grangers and all adjoining Patrons are invited.

[Since the meeting was held, word has been received from Master Carr stating that on account of Dr. E. S. Carr's condition, he must leave on the 9:30 train for Pasadena. We trust his reception, however, will be as pleasant as it must be brief.]

The report of Sister Dewey, Lecturer, on the annual program, was discussed and adopted the same as published in our columns last week.

Two applicants were elected to receive degrees at the next regular meeting.

Practical Education, Cooking, Etc.

This being the subject named for discussion, Sister Smith being called upon to favor the Grange, induced Bro. C. J. Cressey, from San Jose Grange, to take the floor. He was always glad to meet with the old laborers in Temescal Grange. It was his early Grange home. His children grew up in Oakland, and now the meeting of those who were mere children with his children, grown up in the Grange, admonished him of the flight of time, and how we are all "older grown" together. He was glad to meet and greet them and encourage them in their work with the older heads present.

It was during his residence in Oakland that he did the hardest and best work of his life, fighting, with others, for the farmers' rights against the grain and freight rings and big combinations which had always successfully fleeced the farmers until, by the combined action and capital of farmers in the establishment of the Grangers' bank, they were able to demand a fair deal and enforce it. Up to that time, grain-producers had been taken one by one and submitted to the squeezing process by Friedlander and his associates, year after year. Now, by the aid of combined capital in the Grangers' bank, farmers were enabled to withhold their grain from sacrifice by rates of interest that would justify such action. Such work was practical education to the farmers of California.

As to cooking, between ranching and camping he had learned the rapid process. By long experience he could make flapjacks to a turn, and had used flapjacks until they had become anything but a healthy diet. Too many of our children are brought up without learning even to cook flapjacks. We are bound to give our children a scientific education. This they ought to have. But it proves of little use unless they have a practical education also. The Grange is a practical educator. His money and time had been well spent in the Grange. For a lack of better education in youth, he was obliged to be a post-hole digger still. He loved the Grange and was glad to see evidences of its renewed prosperity, and desired, during the present year especially, to help move the Order along that we may have a good report to render from all quarters at the next annual meeting at Sacramento.

He would like to hear the sisters' opinion on practical cooking. He had become tired in batching and camping with the flapjacks and other hastily prepared and ordinarily indigestible food. He, however, just thought of one dish, new to him, a preparation which he could recommend the sisters to try for a hasty meal, made as follows: Sliced-up potatoes, sliced onions, with sliced bacon and water, all duly seasoned with pepper and salt. Place in a frying-pan over a hot fire with a cover, and you will have a splendid dish at short meter, and one that will stand by a workingman or loafing camper.

Bro. Cressey was glad in anticipation of meeting Bro. Carr, Worthy Master of Wisconsin Grange, at San Jose, and extended a hearty invitation for all Patrons to come and attend the Harvest Feast, as well as literary and social exercises. He was happy to say that San Jose Grange was waking up, the rusty ballot-box was getting brightened up some in San Jose as well as in Temescal Grange.

The Order affords the only true protection that the farmer has. Let each one help to cultivate it for our own and our children's sakes. Demand our rights with zeal and in true spirit and we will get them. We need to go to the market begging buyers to give us decent prices in single file, and were always slaughtered, one by one. We must, in a body, demand our rights to secure a hand in establishing prices.

If the facts were all known, the Grange has done a great deal to help its members and to elevate their condition, young and old. It ought to have done more; it must do more in the future. Thankful for what we have accomplished, let us keep on and do better for our own and our children's sakes.

Bro. Dewey gave a reminiscence of the State

Farmers' Union which met in San Francisco in 1873, when an Executive Committee was appointed for the purpose of considering the project of organizing a co-operative business association. A great deal of talking had been done by different individuals, all seeming earnest in the cause of the farmers. There was no lack of good talk, but after the business was all through, and the Executive Committee appointed, a tall man, commanding in figure, who had been silent during the session, rose, and by his earnest, telling words, showed that he had been a good listener and thinker, and there and then made the most impressive speech of the entire meeting. Impressed with the sincerity and practical views of the plain talker, the acquaintance of Bro. Cressey was sought and made with pleasure by the speaker, who was gratified to say that the opinion then formed of the father of the Grangers' bank was an unmitigated one, for the history of the Grange movement will have to accord to Bro. Cressey a hard-earned and well-earned reputation.

Sister Mary Smith of Yuba City Grange followed with some excellent remarks, proving the practicability of Grange education through personal experience. Having 30 acres of land plowed in Sutter county for planting trees, she made inquiry at the Grange meeting in regard to the culture of almonds and other fruits. From information thereby secured she had, with much satisfaction, planted both almonds and Adriatic figs, and did not fear any world's overproduction in either crop. She proposed to write domestic receipts for the RURAL PRESS and other journals, recommending plenty of almonds and dried figs for cakes, puddings, etc.

Bro. Cressey responded that he did not take any stock in the cry of over-production in good fruits in California. He remembered the time when grain was first raised in California and that when there was more wheat produced than Sperry's mill at Stockton could grind, croakers began to whine and fear over-production. But wheat, like gold, is of standard value. The world wanted it and would have it, and it would always draw the gold coin from the vaults of London banks at any time.

Worthy Master Goodenough thought perhaps he should have asked the Worthy Lecturer to define more fully what she meant by practical education. Practical education did not apply to hand work alone. In the late war some generals in command of 50,000 men were unable to place more than one-half that number to advantage on the battle-field. They lacked the practical education to utilize the whole 50,000 by proper placement in the lines. The education that makes men and women really successful must be practical. A sharp lawyer may not be a successful man. Practical education is that which makes well-rounded-up men and well-finished lives.

Bro. Cressey claimed that the Grange was the best of all institutions to make practical men and well-rounded-up lives of men and women. Sister Frink and Sister Dewey spoke briefly. Sister Dewey thought that children should have more time in which to receive their education, and more safeguards should be thrown around their school days to prevent injury to their health.

Bro. Goodenough thought that Senator Stanford was making a practical and noble effort to advance practical education in our State. Bro. Cressey indorsed this sentiment heartily, having recently visited the Leland Stanford, Jr., University grounds, where the solid buildings were being erected. He believed that the dealings of Senator Stanford with workingmen in his railroad and building enterprises had thoroughly impressed him with the necessity of a practical education, and had caused him to study well plans for bringing about a more practical system for obtaining practical education.

Sister Smith, in inviting the Grange to meet at her home, expressed herself very strongly in favor of extending the Grange influence and Grange meetings socially, both by Granges singly and co-operatively, saying that she had never regretted her attendance at her own Grange or at any Granges she had had the privilege of visiting in her many years of Grange membership.

Bro. Cressey, remembering the scenes of his early Grange trials and social Grange pleasures while in Oakland, desiring to keep up a warm friendship and acquaintanceship with all its members and to the gratification of the Grange expressed his determination to visit Temescal Grange frequently.

Who Calls First?

The Worthy Master of the State Grange offers as a premium a set of the combined ritual to the first Grange in this State which gets up a class of ten, consisting of men and women, and will also see that some officer of the State Grange is in attendance at the meeting to confer the Third and Fourth Degrees.

MORE GOOD NEWS.—Bro. F. B. Logan writes that Gilroy Grange will be reorganized on Thursday, Feb. 7th, meeting at 2 o'clock P. M.

WORTHY MASTER J. H. BRIGHAM has appointed Bro. John Trimble, Secretary of the National Grange, to represent the legislative interests of the Order before Congress.



Eschscholtzia.

[Written for the Rural Press by M. B. CULVER.]

Unfold your gold, unfold, unfold,
O poppy buds, so tightly rolled.
Doff your green cap, your dancing-cap,
And toss it on the Earth's green lap.
Shake all your silken tresses free
And call the butterfly and bee.
On green hillside your gold display,
Fresh-coined from Nature's mint each day.
Hebe ne'er bore a lovelier cup
Than you on slender stem hold up.
Graven and chased by Hand Divine,
All shimmering amber—satin-fine.
A drink from you shall never cloy,
Sardonyx chalices filled with joy.
From filtered sunshine and from dew,
And the bright air that birds flit through,
All redolent with flower-scents fine,
Nature's elixir—Summer's shine.
Come then, bright visions, come and stay,
We love you so—Eschscholtziae.

Calistoga, Jan., 1889.

Beautiful Hands

Such beautiful, beautiful hands!
They're neither white nor small;
And you, I know, would scarcely think
That they were fair at all.
I've looked on hands whose form and hue
A sculptor's dream might be;
Yet are these aged wrinkled hands
Most beautiful to me.
Such beautiful, beautiful hands!
Though heart was weary and sad,
These patient hands kept toiling on,
That the children might be glad.
I almost weep, as looking back
To childhood's distant day,
I think how these hands rested not
When mine were at their play.
Such beautiful, beautiful hands!
They're growing feeble now,
For time and pain have left their mark
On hand and heart and brow.
Alas, alas! the nearing time,
And the sad, sad day to me,
When 'neath the daisies out of sight
These hands will folded be.
But oh! beyond this shadow-land,
Where all is bright and fair,
I know full well these dear old hands
Will palms of victory bear.
Where crystal streams through endless years
Flow over golden sands,
And where the old grow young again,
I'll clasp my mother's hands.

—Selected.

The Reedstown Postmistress.

[Written for the Rural Press by I. H.]

It was a decided innovation, a woman in charge of the postoffice at Reedstown; and sundry wise people in the little country village gravely shook their heads and prophesied all manner of irregularities. But to Margaret Anderson it seemed that the dispatching of a single mail-bag in the morning, the distributing of the letters and papers of the small community in the afternoon, scarcely required the strength of an able-bodied man or the wisdom of a Solomon.

So when a new administration came in, and it was beyond a doubt that the old postmaster would receive no reappointment (he being, as was well known, a partisan politician on the other side), she took counsel of no one, but quietly wrote a letter to an old friend of her father's who stood high in the confidence of the new regime and asked for the place. Then she told her mother: "It is not for the honor and glory, but I want the salary. It would be a wonderful help in these hard times," she said; "perhaps we might save enough to send Kitty to the Normal School."

Mrs. Anderson was a widow with two daughters—Margaret, aged twenty-three, and Kitty, six years younger. Their father had died when the two girls were mere children, leaving to his family a moderate competence. In an evil hour the widow had listened to the counsels of an ill-advised friend and had invested part of her capital in certain mining stocks which were said to promise well. The promise was never fulfilled, the friend came to utter ruin, and Mrs. Anderson found to her grief that instead of doubling her income she had diminished it by one-half. Life was a struggle after that, and the wear and tear of the constant efforts to make two ends meet told upon her health and spirits as the years rolled on.

Of late, Margaret had added a little to the family treasury by teaching music, but she had found that a very uncertain dependence. If

she could get the postoffice, there would be a fixed sum to count upon for four years to come. After that—but of her own private hopes and dreams this is not the time to speak.

There followed the usual delay, days and weeks of eager expectation, then of doubt and dependency; and at last, when the matter had ceased to be uppermost in her thoughts, the appointment came and Margaret Anderson was postmistress at Reedstown, California.

Like her mother, she had a certain self-restraint and equipoise which were seldom shaken, but Kitty was her very opposite in character and disposition, and when the news was received she was wild with excitement.

"Oh, what fun! To get the letters first and know who they are all for and where they come from! I'll help you with them; two pairs of hands will make quicker work."

"The postmistress is a mere machine," said her sister. "She is to see and know nothing beyond the simple address."

"Very fine in theory, but impossible in practice," retorted Kitty the irrepressible. "You'll see what romances I will weave out of those same addresses."

But after all, she was very good. Now and then she would take her sister's place for an hour; when the mail was unusually heavy she would assist in its distribution, and no one could find fault with her behavior. Even the young men of the village, to whom pretty, mirth-loving Kitty was very attractive, found that she was a different person behind the letter-boxes and ceased to offer her any attention there.

To Margaret in her official capacity there came of course a large amount of mail-matter, the greater part rubbish—advertisements of trashy goods which any one could realize a fortune by selling, offers of agencies for everything from a thrashing machine to a paper of needles. These were glanced at and consigned to the waste-basket. But one day a letter addressed to the postmaster at Reedstown caused her first to frown and then to laugh as she read it at home in the parlor after tea.

"Just listen to this," she said. "The postmaster at Reedstown will confer a great favor upon the writer if he will inform him whether letters in the handwriting inclosed are regularly mailed at his postoffice." What do you suppose is the meaning of that?"

"Some one in search of a missing friend has an idea that he or she is in this neighborhood," Mrs. Anderson suggested.

"A detective, perhaps!" exclaimed Kitty. "The postoffice begins to be interesting. Let's see the specimen of handwriting."

But Margaret replaced it in the envelope.

"If I do, you will be playing the spy," she said, half in fun, half in earnest.

"O Margaret!" remonstrated Kitty, "I think you are too bad."

"Margaret is right," said her mother; "it is no part of her duty to furnish such information."

"Won't you answer it, then?" asked Kitty.

"No; I think not."

"I would. I'd tell him just what I thought of his impertinence." For Kitty had the easiest way at times of adopting any opinion expressed by her mother or sister.

Margaret said nothing more; she dropped the bit of paper into the fire, the letter into the basket beside her, and dismissed the matter from her mind.

Not so did Kitty. Her curiosity was excited, and the next day, when she was alone in the sitting-room, she took the letter out of the basket, opened and read it.

"I have a great mind to answer it myself."

There was a spice of mischief in the thought she could not resist. She took a sheet of paper and wrote: "The postmistress at Reedstown is neither a spy nor a detective." Then she inclosed it in an envelope and addressed it as directed in the mysterious letter.

How to mail it was the next question. She carried it in her pocket for three days before the opportunity came. On the fourth morning, as Margaret was making up the mail, she was called away to weigh a parcel.

"Stamp those letters for me, Kitty," she said, and with them Kitty slipped her own letter into the bag, feeling a little nervous and guilty as she did so.

She thought the matter ended there; but she was mistaken. Ten days passed, and then came another letter to the postmistress at Reedstown. The handwriting outside was of that of the former letter, but inside it was; and these were the words that Margaret read with strong surprise: "The postmistress at Reedstown little knows the cruel pain she has inflicted on a distressed brother by her reply to his anxious inquiry."

What could he mean? Light suddenly flashed upon her; this was Kitty's doing!

Of course that erratic damsel made full confession when questioned, but could not be made to see the enormity of her conduct, though her mother and Margaret expressed themselves in stronger terms of reprobation than she had heard for many a day.

The worst feature of the affair was that there was nothing to be done but to try to forget it, and to hope that no evil consequences might follow. And, indeed, both Mrs. Anderson and her elder daughter were a little inclined to share Kitty's emphatically expressed opinion that the "cruel pain" was probably put in for effect.

A whole month had slipped away, and the annoying incident had been almost forgotten, when it was recalled to Margaret's mind in this

manner: She was alone in the postoffice in the afternoon; the rush of applicants for the mail had come and gone, and she was waiting for six o'clock to set her free, when a gentleman entered, evidently a stranger.

"Are you the postmistress?" he asked.

"I am," said Margaret.

"Then—" (and there was a smile of amusement lurking about the corners of his mouth as he said it) "I have been commissioned to deliver a message of apology. I presume this is your handwriting?"

He held out Kitty's unlucky letter.

"No," said Margaret, "it is not," and her face was covered with blushes. "That letter was written without my knowledge and very much to my regret."

Her confusion and annoyance were so evident that the stranger altered his tone immediately.

"I am very sorry if I have given you pain," he said. "I thought it probable that you would see the ridiculous side of the matter and feel interested in the denouement, or I should not have accepted the office of apologist. Perhaps you will not think it such a serious business if you will allow me to explain."

"Oh, thank you," said Margaret; "you are very kind. I shall be glad to hear the explanation." She felt a little ashamed of having shown so much feeling to an entire stranger.

"It is not a very long story. The letter to which this was the reply was written by a young fellow whom I chanced to meet under rather trying circumstances—a railroad accident, where he was seriously injured, and I, sitting beside him, escaped unhurt. He was laid up for some time, and it soon became evident that his state of mental anxiety retarded his recovery. For want of a better confidant he unbosomed himself to me. I will shorten the details as much as possible. A brutal and despotic father had made his home so hateful to him that he ran away years ago, leaving his only sister to the tender mercies of the old man. She, too, found her position unbearable and left him, but not until he had almost broken her heart, as he had tried to break her spirit, by a false report of her brother's death. Lately the father died, having made no will, and leaving considerable property. By accident the son saw an advertisement for the heirs and returned, but to his great grief could learn nothing of his sister, so effectually had she concealed her movements. He had no hope of finding her under her own name, and all his advertisements failed to bring an answer. At last he found a clue by the merest accident; he picked up in the street a newspaper envelope addressed in a hand which was unmistakably hers, and the postmark was 'Reedstown, Cal.'"

The next day he was on his way to find her; but unhappily he met with the accident and detention I have spoken of. He had sent his letter to you before he told me his story, and was waiting for the answer in a fever of impatience. When it arrived I would have told him he was rightly served but for his evident distress. He told me afterward of his second letter, which of course was of a piece with the whole affair. He was really so ill that he was obliged to coax the doctor to address it; he was afraid to ask me. However, it all ended happily. He recovered, persuaded me to come with him to conduct the search, which I did, as I liked the boy and saw he needed some one to save him from acts of absurdity. He found his sister after a few quiet inquiries. She was acting as governess in the family of a Mr. Coates, some fifteen miles from here, I believe, and this morning he took her with him on their way back to the East. That is the whole of it; but he felt that you—or rather that the writer of the letter—deserved an explanation and apology at his hands and begged me to come and see you."

"Oh!" exclaimed Margaret, "I am so glad. I have been so vexed about it. It is quite a relief to know that no harm was done. Thank you very much indeed," and she smiled brightly, with an odd little trick she had of elevating her eyebrows at the same time. It was an inherited peculiarity. Her father had had the same habit; perhaps for that reason Mrs. Anderson had never attempted to check it when she was a child. Now it was as much a part of Margaret as were her dark-gray eyes, also like her father's, and both were dear to her mother's heart.

The stranger looked at her for a moment intently. Just then a young girl rode up to the postoffice door.

"O Miss Anderson!" she called, "won't you please give me my mail? My pony's so fractious to-day I can't leave her a moment."

"I'll bring it," said Margaret, and she went out with a handful of letters. Her new acquaintance waited for her return.

"Excuse me," he said, "if I am taking a liberty, but just now your face seemed to me strangely familiar and your name makes me venture to ask the question, can it be that you are the daughter of my old friend, Charles Anderson?"

"That was my father's name," Margaret answered, "and I am said to be very like him."

"And your mother was Margaret Lewis of Eastville, Vermont?"

"Yes," said Margaret in surprise.

"You may have heard her speak of Tom Archer—"

"Indeed I have," and the girl held out her hand. "I am very glad to meet you, and my mother will be, too. We live just across the street in that small cottage at the corner."

"I will have the honor of calling upon her

this evening," said Mr. Archer, and he took leave.

There was quite a flutter of excitement when Margaret went home and told her story. Kitty clapped her hands with delight that her escapade should have so pleasant an ending.

Often and often had Mrs. Anderson spoken to her daughters of Tom Archer, their father's early friend and favorite companion—of his merry pranks and joyous disposition, of the fair young girl he had won for his bride, Kitty Carter, the belle of the village, whose beauty was equaled by her loveliness of character. The sad sequel had been also told—how she had died in England within a year of their marriage, leaving her husband heart-broken for her loss. He had not returned to his early home, but had been a wanderer in foreign lands ever after. To Kitty, who had been named in memory of the young wife, it was all like a romance. Now she was to see the hero.

(To be Concluded.)

Working Women in San Francisco.

A dispatch from Washington states that Carroll D. Wright, Commissioner of Labor, has submitted his Fourth Annual Report to the Secretary of the Interior. Its subject is the "Working Women in the Great Cities." The report comprehends 342 distinct industries in 22 different cities. It does not embrace facts in relation to the employment of women engaged in the higher pursuits, such as teaching, typewriting, etc., nor those who are engaged in the lowest forms of labor and live in the slums of the great cities. Most of the facts in the report have been collected by women, excepting the investigation in California and the collecting of statistics relating to feminine depravity. The average weekly earnings of working women range from \$4.05 in Atlanta, Ga., to \$6.91 in San Francisco. The average of all the cities is \$5.24. In San Jose the average is \$6.11.

In speaking of the industrial conditions in San Francisco, the Commissioner says: "The presence of the Chinese has had a considerable effect upon the industrial condition of the San Francisco working women. For a number of years it has been the custom to employ Chinese as house servants almost exclusively. Since the Restriction Act has lessened the supply of Chinese, the San Francisco housewives have attempted to get white girls to do their housework. To get them is very difficult. House service has so long been the special field of the Chinese that the white girls think there is something degrading in the work. Some girls who refuse house service will perhaps accept work in a cigar factory, which, although employing Chinese, is not pre-eminently a Chinese field of labor."

"The fruit canneries of San Francisco afford temporary employment to a large number of women and girls. During the season, which lasts from June 1st to the latter part of August, these canneries employ hundreds of girls. The rest of the year the cannery girls go to school, engage in domestic service or stay at home. In the canneries of San Jose, Oakland and other neighboring towns the girls employed are often of good family and education, some being school-teachers, who thus spend a portion of their vacation in a not unpleasant occupation which brings them 'pin-money.'"

"The poorest classes of women in San Francisco are seamstresses. A number of institutions were discovered by the agent of the department where a regular system of fraud was being practiced upon defenseless sewing women. The general plan of such frauds is in brief as follows: A standing advertisement is kept in the papers asking for girls to do tailor sewing. When a girl applies she is told it will take her several weeks to learn the work, but after she had learned good wages would be paid. The girl accepts and goes to work. She demands pay for her work, and she is told that she is not satisfactory and that she cannot be employed. The agent found cases of this kind where the women had not only given their labor, but had also brought their sewing machines to the fraudulent factory and given the use of them, and at the end of a month or more had been sent away without pay. The exposure of this system, which was practiced by a number of disreputable firms in San Francisco, led to a mass meeting at which the Sewing Girls' Union was formed, one of the objects of which is to prevent such frauds and to prosecute their perpetrators."

"Almost all the necessities of life are dearer in San Francisco than in the Eastern cities, but to counteract this, wages are slightly higher. The mildness of the climate enables the working women to do with less fuel, less clothing, and even less food. It seldom happens that a San Francisco working woman spends anything for fuel except for cooking purposes."

Didn't Know She Was Loaded.

"Hold on! What's that you have there?" an Orland, Me., lady exclaimed to her domestic, who was on the point of throwing something in the stove the other day.

"Only some onion seed."

"Let's see."

On investigating, the lady found that the "onion seed" was a quarter of a pound of giant powder.—*Lewiston Journal.*

Luring Boys to Smoke.

Many cigarette manufacturers send out advertisements like the following:

"This is the most complete and correct collection of military and naval uniforms in the world. We will pack in the celebrated Gold Coin chewing tobacco, the portraits of all leading baseball players, police inspectors, jockeys, and actors in the country, in full costume. Continue to save the wrappers; they are valuable. Figures never lie. The following statistics of our sales since 1882, showing the enormous increase from year to year, will convince you of the general appreciation of our cigarettes." The statistics are then given, after which comes this boastful statement:

"Think of it! Four hundred and sixty-six millions of cigarettes sold in one year, over three hundred millions of them sold within the last six months, or an average of two millions for each working day, three hundred and twenty-two per minute, allowing ten hours per day." With every package comes a little slip, and the boy who smokes 75 packages or obtains 70 slips sends them to the manufacturer, who sends him an album containing all the cigarette pictures the firm has ever published; and for this many boys are trying, either by smoking the poisonous things or by collecting them of those who do, and while some pictures are decent and attractive, others are indecent. It might seem the most harmless thing in the world for a boy to make a collection of pictures, but when you turn them over, discover the snare and know that in this way there may come into his hands base representations, and that through them his mind may become familiar with low things, you can but see that it is harmful.

Fathers and mothers, be on your guard! The foe lies in ambush, though you may not know where, and very insidious are his approaches. Let us strive to fortify with principle and instill into the minds of our boys such a loathing for all that is low and vile that they will instinctively turn away from whatsoever is associated with evil.

E. J. B.

A Young Amazon.

The Chico Enterprise says that Miss Kate Lucas, who lives with her mother and brothers in the mountains above Chico, is an intrepid horsewoman, scorns a saddle, and at times rides a fiery mustang, without either bridle or blanket, simply using a lariat, the end tied around her horse's head and neck. She is a capital shot with the rifle, and when out with her brothers hunting rarely fails to bag a deer, or some of the other wild animals, which abound in that section. Sometimes the young miss assists in capturing the wild cattle, when they are required for the market, and then the lariat is twirled with a precision that often puts the vaqueros to shame.

A few weeks ago, having ridden after a particularly wild and fleet-footed steer, which showed fight from the start, the young lady laughed at a vaquero, who seemed afraid of the animal, and smilingly challenged him to throw a rope over the animal's head and ride him. The vaquero declined with thanks. Miss Lucas, springing from her horse, went up to the bound and bellowing beast, quickly tied a rope around his head and neck and then told the vaquero to let him loose. This he did reluctantly, and the enraged steer was quickly on its feet, but equally as quick the fearless lass was on its back. Then commenced a ride the like of which is rarely witnessed. For half an hour the wild chase continued over hill and dale, through brush and canyon, when the steer gave completely out, and the triumphant girl led her captive to the house. It was a bold feat, and the daring rider has made herself famous in that section of the county.

VOLAPUK.—A correspondent of the Record-Union says that "Volapuk" (world's speech) continues to make steady progress, especially in Europe, where they have had the advantage of good dictionaries for several years. Its progress has been comparatively slow in English-speaking countries, for want of a good dictionary; but such a dictionary will be published within a few weeks. It is estimated that about 1,500,000 people have learned Volapuk. It has been translated into 35 languages, and 25 periodicals, in 20 different countries, are entirely devoted to it, while many others have "departments" devoted to the cause. In most of the cities of Europe Volapuk bureaus have been organized for the purpose of giving miscellaneous information free to traveling Volapukists, and clubs have been formed in most of the larger cities of the world for the purpose of learning and propagating this international mode of speech.

A SURPRISE PARTY of almost any sort—pillow-case, donation, or whatever it be, and with whatever good feeling it may be sprung upon the unsuspecting recipients—has in it a taint of intrusiveness, a lack of due regard for the rights of home privacy, which makes it somewhat vulgar, and it may cause great inconvenience. It pushes in and takes liberties after a fashion that offends sensitive people, who may still be too considerate and courteous themselves to show that they are put to trouble or inwardly annoyed by the kindly but unwarrantable invasion.

YOUNG FOLKS' COLUMN.

The King's Daughters.

[Written for RURAL PRESS by FANNIE ISABEL SHERRICK.]

She was one of the King's daughters. But you would never have taken her for a princess, for she did not wear the royal purple, and she was not beautiful, with golden hair and violet eyes, as the poets tell us most princesses are; and she did not live in a palace with myriads of servants to do her bidding and magnificent equipages in which to ride.

No, she was only a commonplace girl, and she lived in a commonplace house in the midst of the great city of San Francisco. You could see a dozen girls like her any day on the street. She was clad in plain woolen dresses and wore gingham aprons, and instead of having servants to wait upon her, she helped her mother do their housework and washed dishes every day of her life; and the only carriage she ever rode in was the cable car which ran past her door and which was often filled with more shabbily dressed people than herself.

And yet she was the daughter of a King, for she was the child of God, and is He not ruler over the whole universe? and are we not all of more royal birth than the mightiest kings who have reigned upon the earth?

She belonged to the "Flower Mission," which has brought good cheer to so many hospitals and sick-rooms and also to the "King's Daughters," the members of which are pledged to do good whenever and wherever they can.

Such bright girls owed allegiance to this King, and such happy and busy girls! Every day brought them some work to do, and each night they were happier, I think, because they had done something that was noble and good.

It is the best recipe in the world for happiness and health, this doing good unto others. It makes the heart cheerful and sends the red blood coursing joyously through the whole body. Just think how crammed full of happiness this world would be if only we could remember always "to do unto others as we would that they should do unto us!"

And what a miserable old world we do make of it sometimes just because we will persist in doing unto others as they do unto us, not remembering that in returning good for evil we gain our own greatest measure of happiness.

Well, all this striving after the good did not make our little friend Alma an angel. Not by any means. She had her faults and I dare say was cross some days and didn't have her lessons at school the same as other girls; but it helped her wonderfully to be good. It was such a grand thing to know that she was the daughter of a King and that she could serve Him in so many beautiful ways.

Alma lived in this lovely city where the flowers bloom all the year around and the snow never comes, for California is the land of summer, so she had never seen, as some of us have seen in the Eastern cities, the poor people actually freezing to death in garrets and cellars, but she had seen much poverty and misery, and she loved to give her little mite and her kind word to the sick and miserable.

One day she was returning from school when Jessie Moulton stepped up behind her. Now Jessie, though she lived in a fine house and wore fine dresses, was not one of the King's daughters, and she knew very little about the golden rule which Alma practiced. She did not know that any girl could be a real princess and yet live in a plain old house and wear plain dresses. Like her fashionable mamma, she thought a good deal of fashion, and probably thought that only "stylish" people ever went to heaven.

Her face was all ablaze with anger as she came up to Alma, and she jerked her words out with angry force.

"Alma Treadway!" she cried, "you are the meanest girl in school, and I'll get even with you if it is the longest day I live!"

Alma turned around and looked at her quietly. A slight flash rose to her face, but she said calmly:

"Tell me why you say this, Jessie!"

"You know why I say it!"—Jessie could hardly speak for her anger—"because you did not reply to my note this morning in the examination. I only asked you the meaning of one word and you refused to give it to me. There isn't a girl in the whole school would be as mean as that!"

Alma's eyes were slowly filling with tears at the cruel injustice, but there was no anger in her heart.

"Dear Jessie," she said softly, "I am sorry you are angry, but it is a point of right and honor with me. Even to have told you one word would have been cheating and dishonorable, and it would have been lying to our dear teacher who trusted us. Even had she never known it, there is One who knows and sees, and my own conscience would have reproved me. We would both have sold our honor for a mere word. Dear Jessie, don't you see this?"

But Jessie was too angry and too disappointed at the result of her examination to see anything in its true light. Besides, her conscience had not been trusted as Alma's had always been, consequently its voice was seldom heard and she could not see how it could be so very dishonorable to tell just one little word, not knowing the principle that makes it just as much of a sin to steal one dollar as a thousand.

"It's foolish nonsense," she cried hotly; "it

DOMESTIC ECONOMY.

Tested Recipes.

[Written for the RURAL PRESS by ADA E. TAYLOR.]

Barbecued Ham.—Cut raw ham in thin slices, soak in scalding water for half an hour, then lay the slices flat in a frying-pan; on each piece put pepper, nutmeg and some made mustard. Pour in vinegar in proportion of half a teaspoonful to a slice; fry quickly, turning over. When done, take out and serve on a dish; add to the gravy half a glass of wine and a teaspoonful of sugar; boil up once and pour over the meat.

Ham Toast.—Toast some bread to a crisp delicate brown, dip quickly in hot water, and lay separately on a warm platter, butter each piece, and lay on top a piece of nicely fried ham; on the ham place fried or poached eggs, as one may prefer. This makes a very nice breakfast dish.

Strawberry Sauce.—Beat one cup of sugar and one cup of cream until stiff, then add the beaten whites of three eggs; stir in this mixture a bowlful of thoroughly mashed strawberries. This is nice set on ice for a few hours before eating.

Lemon Pudding.—Take a pint of bread-crumbs, a quart of milk, the juice and grated rind of two lemons, the yolks of three eggs; sweeten to taste. When baked, cover over with a frosting made of the whites of three eggs, beaten light, one-half cup of sugar and the juice of one lemon. To be eaten with cream and sugar.

Apple Tapioca Pudding.—One cup of tapioca soaked over night in six cups of water; next morning add about six large tart apples chopped very fine and one cup of white sugar; bake slowly about four hours; to be eaten either warm or cold with cream.

Puff Pudding.—One cup of sour cream, one-half teaspoonful of soda, a pinch of salt; stir in flour till stiff; spread in a pudding-dish; set in the oven and let it brown; take four or five nice tart apples stewed smooth; add one tablespoonful of butter, one cup of white sugar, the yolks of three eggs and half a teaspoonful of the extract of cinnamon; put this mixture on the crust when done and return to the oven. Beat the whites of three eggs to a stiff froth, add one-half cup sugar and a little cinnamon; drop in spoonfuls on top of the pudding when baked.

Pudding sauce.—Beat one small cup of sugar and one tablespoonful of butter to a cream; stir in a large spoonful of flour and pour over the whole two pints of boiling water; set on the stove and let boil; flavor to taste.

Vallejo.

KEECH CAKES.—For a family of four take two cups of cornmeal and one-half cup of flour, a good pinch of salt and one fourth teaspoonful of dry saleratus, stir all together while two or three tablespoonfuls of fat are melting and heating; after sifting these ingredients, mix with scalding water, dip the spoon in the hot grease, and make with the spoon the dough into small spider cakes. Cook steadily, but not too fast. When the grease is taken up, the cakes are ready to turn and finish on the other side. Nice, clarified beef suet gives a sweet, crisp crust. Serve these cakes hot.

SPANISH CREAM.—One and one-half pints of sweet milk, one-half box of gelatine, three eggs, four tablespoons of sugar, one teaspoonful of lemon flavoring. Mix the milk, gelatine (which has been dissolved in a cup of hot water) and yolks of eggs together, stirring constantly until they come to a boil; then add the remainder of the ingredients and stir briskly for a few moments; pour into molds, which have previously been wet with cold water, and set away to cool.

COTTAGE PUDDING.—One cup of sugar, one tablespoon of butter, two eggs, one cup of sweet milk, three cups of flour, or enough to make a tolerably stiff batter, one-half teaspoon of soda, one teaspoon of cream of tartar sifted with the flour, one teaspoon of salt. Rub the butter and sugar together, beat in the yolks, then the milk and soda, the salt and the beaten whites, alternately with the flour. Bake in a buttered mold, turn out upon a dish; cut in slices and eat with a liquid sauce.

VEAL OMELET.—Veal omelet is made with an omelet mixture of four eggs, half a cup of milk and a pinch of salt. When half done, stir in carefully one cupful of finely minced veal and a handful of breadcrumbs which have been soaked in milk. Also moisten the meat by stirring it in a stewpan with a little melted butter. Fold the omelet and serve hot. If there is cold ham in the larder, a few shavings minced with the veal give the dish an added flavor.

ORANGE CAKE.—One cup of butter, three cups of sugar, one cup of sweet milk, 4½ cups of flour, two teaspoonfuls of baking powder and six eggs, saving out the whites of four. Bake in layers. Beat the four whites to a stiff froth and add one pound of powdered sugar. Froth three oranges, and after the frosting is spread over the cakes, slice the oranges very thin and lay them on the frosting of all the layers except the top.

RICE PUDDING.—Two quarts of milk, two-thirds of a cup of rice, the same of sugar, small piece of butter, and a little salt; stir it occasionally until boiling hot, and cook in a small oven until of the consistency of cream.



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Business Announcements.

(NEW THIS ISSUE.)

Agricultural Implements—Frank Brothers.
Windmills—Pacific Manufacturing Co.
Poultry—Geo. Treffer, Sacramento.
Seeds—Peter Henderson, New York.
Soap—Capital Soap Co., Sacramento.
Dry Goods—Hale Bros. & Co., Sacramento.
Real Estate—Lang, Merritt & Dexter, Salinas, Cal.
French Prunes—A. Drahm, Sonoma, Cal.
Rein Holders—Brewster Mfg. Co., Holly, Mich.
Cattle—P. H. Murphy, Perkins, Cal.
Clydesdale Stallions—Kilbip & Co.
Horse Scales—D. N. & C. Hawley.
Harvesters—Matteson & Harrington Mfg. Co., Stockton.
Potatoes—D. B. & M. S. Harrington, Delavan, Wis.

The Week.

The weather again demands attention, for unless something generous is done soon by the clouds there will be much apprehension and foreboding. In some parts of the State the natural feed and the young grain are showing the yellow leaf in absence of rain and under the influence of drying winds. The southern beekeepers complain of blight in the blossoms and the miners of the mountains bewail the lack of snow and the low reservoirs. Of course there is plenty of time for most of the State, and if February is as wet as it sometimes is, all will be well.

The Legislature has been largely occupied with questions of local concern, such as county divisions and city charters. The vast appropriation measures do not seem to be making much progress and the time is getting so short that many of them will never emerge from the committee-room. Not many will mourn their failure.

Latest information from the south is favor-

able to a fine orange crop, as large as has ever been gathered, in spite of subdividers and town-lot fiends. A grand crop will do the south far more good than a boom.

The Government Irrigation Work.

Senator Stewart of Nevada seems to be the leader in irrigation matters at Washington. In another paragraph in this issue mention is made of his measure concerning streams which flow from one State into another. The telegraph also brings an outline of new propositions relative to the Government surveys looking to irrigation of arid lands. It seems Senator Stewart has offered an amendment to be inserted in the Sundry Civil bill, increasing the appropriation for surveys of sites for irrigating reservoirs in arid regions, and estimating the cost of construction thereof from \$250,000 to \$350,000. The amendment provides that when surveys and estimates for necessary hydraulic works have been completed for any section of land by said system of hydraulic works, the lands to be irrigated under such system shall be subject to entry under the Homestead law, provided no patent shall issue for any such entry until the construction of hydraulic works shall progress sufficiently to furnish water for the reclamation of the lands to be patented, or so much thereof as may be susceptible of irrigation. Any assignment, transfer or alienation of lands so entered prior to the issuance of patent shall be absolutely void and the lands shall revert to the United States. It is provided further that the Secretary of the Interior shall have power to make regulations whereby persons entering such lands may form co-operative associations for the purpose of constructing the necessary hydraulic works in any irrigation district in which lands are to be irrigated by said system, and the associations formed for such purposes may mortgage their right to lands entered by them for the purposes of obtaining funds for the construction of the necessary hydraulic works. Any mortgage or incumbrance made upon such lands without approval of the Secretary of the Interior is made void, the land to revert to the United States.

These propositions are interesting and important and should be thoroughly discussed by all those contemplating investment and enterprise in lands likely to be rendered available by the new Government work for irrigation.

Lands in Lassen and Modoc.

In an article on "Desert Lands in Lassen," in the RURAL PRESS of Jan. 19th, it was remarked that too many "innocent victims" have been led by real-estate schemers to sink their money in land which they have no means of reclaiming. The *Alturas New Era* thinking this rather severe and liable to mislead, explains as follows:

Two years ago there was a rush to obtain land upon the Madeline plains. Schemers from Chico and other places rushed up to Susanville, obtained plats of unclaimed land from the Land Office, returned to Chico and disposed of the lands on the plats to their friends and neighbors. When the purchasers went to Madeline to view their purchases, a few of them found their lands upon the tops of hills and in rocky canyons. They were deceived by their friends, and not by real-estate agents. This is the only case, so far as we have ever heard, where "innocent victims" were taken in and induced to buy land that could not be irrigated in either Lassen or Modoc counties. There is very little desert land in either county that is not easily irrigated, and there is, in Modoc at least, plenty of water to irrigate it with.

Real-estate dealers, to our certain knowledge, have had very little to do with lands in either county. Lands have, as a rule, been "taken up" by settlers, and what little was sold by settlers to new-comers, in nearly every case the sales were made by the owners on the spot, and the buyers purchased with their eyes open. If they were swindled, they have only themselves to blame.

It is true, there are thousands of acres of good land yet open to settlement in both counties, and it is equally true that there is ample room for private enterprise in the developing of water and constructing storage reservoirs at the base of the mountains in these counties.

THE LOS GATOS PACKING CO. has filed articles of incorporation. Its objects are to buy, sell, dry, pack, can and preserve fruits and vegetables and to acquire and hold real or personal property. The capital stock is \$100,000, divided into 2000 shares at \$50 each. The principal place of business is here, which is the residence of all the directors.

Is Rattleweed Poisonous?

It seems rather late in the day, in view of the popular belief that animals are crazed by eating rattleweed, to start a discussion as to whether it is really the plant that occasions the peculiar behavior which leads stock-growers to say an animal is "loco'ed." We supposed that there was no question whatever about it. It is true, we believe, that analysis has never separated a substance which could be specifically charged with the evil, but vegetable poisons are sometimes very obscure in their chemical condition. It seems, however, that there is now coming out some testimony tending to overthrow the common belief in loco poisoning, and we publish the following, which we find in the *Fresno Republican* of January 25th, to draw attention to the matter:

The discussion as to whether the "yerba loca" will, if eaten by stock, produce insanity, is becoming quite general. Mr. James Kennedy, Ph. G., of the Texas Pharmaceutical Society, has made analyses and experiments, and he declares that the only ill effect that could follow its consumption would be the usual effect of over-eating. Dr. L. M. Booth of Stanislaus county, a physician with 30 years' practice, and who is a pioneer stockman, says rattleweed is not poisonous. He thinks that insanity in horses is caused by the swallowing of sand and dirt, which clings to the roots of grasses and herbs that the animals feed upon. His testimony is corroborated by that of Mr. S. Gates, a stockman of San Luis Obispo county, whose letter we print below:

I have noticed in a number of papers lately, remarks and opinions about the plant "yerba loca," or rattleweed, and in your valuable paper of the 4th inst. the statement is made that stockmen are unanimous in their belief in its injurious quality. I wish to be put down as one who does not believe in the loca-weed theory. I am in the stock business, and live between the Cox and Clark ranch, on the west, and the Cholame ranch of 40,000 acres on the east, all run to stock. There are fully 50,000 head of cattle, horses and sheep kept in this immediate neighborhood, and I have no knowledge of one loca animal, so called, and there is an abundance of rattleweed all over this country. Last year was a very poor grass year, and everything in the way of vegetation was eaten, rattleweed and all, without any bad effects. It is my opinion that the using of poor, muddy water by stock has more to do with their going crazy than anything they eat. Respectfully yours,

S. GATES.

Such is the case in favor of the innocence of the weed. What have our readers to say about it? Have they positive evidence that eating the weed has caused the trouble or knowledge that eating it is not followed by such effects? It will be valuable to know whether the popular belief is a delusion or well founded on fact.

The Samoan Row.

The present war flurry with Germany over the Samoan islands will no doubt evaporate in words; but it will do good—it will give us a realizing sense of the feeble condition of our navy. While the naval power of the country may impose upon the negro republic of Hayti, it is calculated to make anything but a serious impression upon the great military powers of Europe. It looks all right enough on paper to send a fleet to Samoa, or wherever trouble with foreign powers may be anticipated, but the admission may as well be frankly made that in an actual emergency of war our navy could not cope with the tremendous ironclads and fast-going cruisers of Italy, Spain, France or Great Britain. Even for the purpose of making a moral impression upon the weakest of the nations of Europe it would be necessary to depend upon some other force than that of the navy.

The people of this country feel justly proud of the recent vigorous efforts to rehabilitate our navy. A great commercial nation, and especially one that threatens to enforce the Monroe doctrine, cannot afford to be without such an armament. We are making some progress. Some of the new cruisers that have been lately launched are regarded by the best authorities as models of naval construction. In celerity, strength, seaworthiness, and the ease with which they may be maneuvered in action, they show they are a match for the best that can be brought to bear against them. And then for skill and bravery there are no better seamen in the world than the Americans.

But while we have fine sailors and swift cruisers, our navy is very little better off than it was before. The great guns necessary to impress an insolent and powerful nation with the greatness of the United States are sadly lacking. We have not a ship in our navy that could withstand the great guns of the British "Blake" or "Blenheim," the German "Kaiser," or the "Devastation" of France. So if our pres-

ent relations with Germany should call attention to the weak points of our navy and show how inadequate it is to grapple with a mighty people, it will do good, for all classes of people must be interested in seeing this arm of the service placed upon a respectable war footing.

Interstate Water Rights.

It is telegraphed from Washington that Senator Stewart has introduced a bill, the object of which is to allow suit to be brought in the Circuit Court in either California or Nevada to determine water rights to streams rising in California and flowing into Nevada, and to enable parties to obtain service of defendants whenever they may be found.

Senator Stewart's bill is to amend Section 1 of the Judiciary Act as follows:

"That where the sole ground on jurisdiction is founded on the fact that the action is between citizens of different States, suit may be brought in the district of the residence of either plaintiff or defendant; and provided further, that when there is a controversy between citizens of different States involving the right to use water which flows from one State into another, and the plaintiff claims the right to use it in another State, suit may be brought up in the district where the plaintiff or defendant resides, and process may be used in any district where the defendant may be found."

There are in the irrigating regions many other localities to which this law will apply. Without such a law there is no practicable way of determining disputes.

Reforming the Ballot.

A bill is now before the Legislatures of California and Missouri embodying the salient features of the Saxton electoral-reform measure which recently engaged the attention of the law-makers of New York. Nine bills have been introduced in the Indiana Legislature looking toward reform in election laws and methods of voting. Indeed, nearly all the Legislatures of the Northern States which are now in session are considering measures of this class. Never before has the movement in favor of reform in the ballot been so extensive or so powerful in this country.

In nearly every instance the electoral method that is sought to be adopted is a modification of what is known as the Australian method. The principal features of this method we have already given our readers. So far as present legislation is concerned, this scheme is no longer an experiment. As we have pointed out, it has been tried in England and Canada, as well as Australia, and has worked well. Nor is it wholly unknown to the United States. Massachusetts enacted a law of this sort about a year ago, which goes into effect at the next State election. Two cities of this country—Milwaukee and Louisville—have already held elections under an Act of this kind.

As we have just said, this scheme is no longer tentative. Wherever it has been tried it has given satisfaction. Wherever it has been in operation it has removed the most serious frauds and abuses that have clung to the system it superseded.

The measure now before the Legislature at Sacramento meets with much opposition from the politicians. They say it is not adapted to the institutions of our country. The test to which it has been submitted in the two American cities silences that objection. That test proves that this method of voting can be made serviceable in this country.

But we are told that our present law is good enough if its provisions were enforced. The fearful depravity and corruption at the last election in the city of San Francisco alone is a sufficient reply to this objection. Under the new scheme things cannot be worse, and may be better; let us therefore give it a fair trial.

STATE BOARD OF TRADE.—At the Executive Committee's meeting Tuesday afternoon "California on Wheels" was reported as moving successfully along in Indiana and Michigan, and the manager of the board was authorized to purchase displays of vegetables of various kinds and forward them at once to the traveling exhibit. Letters were read from the managers of the Buffalo and the Minneapolis expositions urging that California be represented at both. A special meeting of the committee was called for next week, when these matters and the question of a traveling exhibit in Europe will be considered.

A Rabbit-Proof Fence.

[Written for the RURAL PRESS by MIRAMONTE.]

In view of the ravages committed by the jackrabbits in unprotected fields and orchards, it may be of interest to your readers to know of a rabbit-proof fence that is not only comparatively cheap, but also possesses the merit of having been thoroughly and successfully tested. From the accompanying sketch and description it would seem that any one can get a clear idea of it.

The tall posts are regular split redwood posts. The intermediate small ones are made by sawing in two the regular posts and splitting them into eight small posts, or rather large stakes. These posts and stakes can be set in the ground any depth to suit the ideas of the fencer.

The netting, which is of galvanized wire, No. 19 gauge, is of $1\frac{1}{2}$ -inch mesh. This is better than two-inch mesh of No. 18 wire, as the smallest rabbits cannot squeeze through it, while they can through a two-inch mesh, and, while it costs a little more, it is stronger.

This netting is stapled to the posts and stakes on the inside, or toward the field. This is of prime importance, as it will not serve the purpose if it is placed on the outside. The bottom of the netting is to come down to the ground, and the ground must be left hard, and not plowed, to prevent burrowing or scratching the dirt from underneath, which can be easily done if the dirt is softened up. It is not at all necessary to set the netting below the ground.

In the sketch are shown three barbed wires, with barbs $2\frac{1}{2}$ inches apart. These wires must be placed on the outside of the posts. This position is also a prime necessity. The lower wire is stretched just clear of the surface of the ground. The middle wire is one inch higher than the top of the netting, and the top wire, which is intended only as against cattle, is at a height suitable for the purpose. The rabbit-proof portion is comprised in the netting and the two lower wires. Hence if cattle are not feared, and rabbits are the only foe, the top wire can be dispensed with, and the posts can be all short with a greater proportion of stakes, having only enough stout posts to stand the strain of the wires.

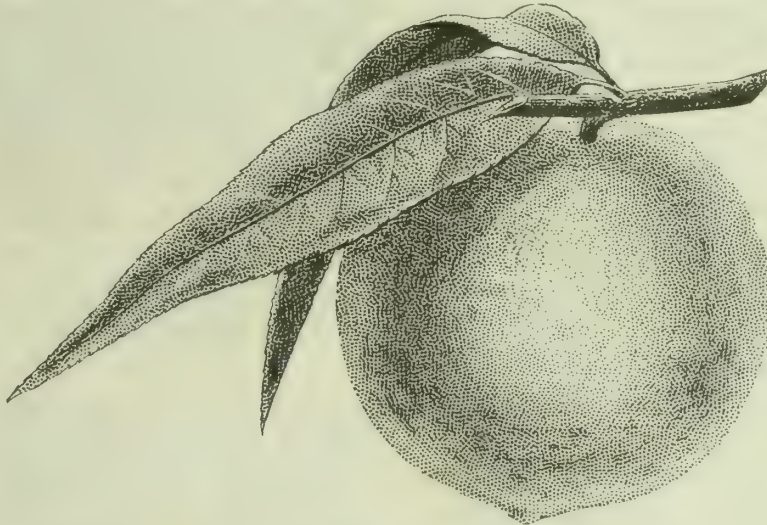
The theory of this construction is that a rabbit can only pass the fence over the top or under the bottom. Any one acquainted with the habits of the jack will perceive that the first is practically impossible. It is very rare that a rabbit will take a standing jump of more than a few inches, and still more rare that he will take a running leap unless under excitement, as when being chased by dogs or coyotes. In such cases, however, he will never notice the netting until he is so close that he cannot recover himself, but invariably strikes against the netting while at full speed, and either breaks his neck or is caught by his pursuer. It is manifestly impossible for him to climb over the fence, as the distance between the top of the netting and the barbed wire, less than four inches, will not permit him to pass without getting torn to pieces by the barbs.

He has left but the possibility of burrowing under the fence. Now, the jack is not a burrowing animal; that is, he never makes a complete underground burrow. His *modus operandi* is to look along a fence till he finds a place where the bottom of the fence does not quite touch the ground, and at that point he begins to scratch the dirt out, as would a dog. This he continues until he has succeeded in working a space large enough to force himself through. This is what they constantly do in the case of the slat or lath-woven fences, and they generally assist themselves by gnawing away the inside bottom corners of the two laths between and under which they aim to pass. This I have seen done hundreds of times, and for that reason do not consider that style of fence at all effective.

By a glance at the side or end view on the sketch it will be seen that for a rabbit to burrow under the netting, he must either pass under the netting by burrowing under it while the barbed wire is under his abdomen, or he must burrow under both wire and netting. It is patent that he will not make more than one short attempt at the former method. If he tries the latter he must begin well back from the wire to clear it, and dig both deep and for

a long distance. He will invariably soon get discouraged in this effort, and will stop at that point and begin again elsewhere, with the same result. If he makes his burrow shallow, or begins it too close to the barbed wire, he will shortly get to a point where the barbs will catch him in the back. The first prick will put a sudden stop to that attempt. I could enumerate many other advantages of this style of fence as an almost certain defense against the rabbit, but from what I have already stated, your readers can study them out for themselves.

Now for a working illustration of this fence I will refer to the one put up on the Miramonte Colony, in the artesian belt of Kern county, by a few of us last spring, and which has consequently had a thorough test of nearly a year. We have 240 acres inclosed by $2\frac{1}{2}$ miles of fence—a sufficient length to demonstrate its weak points if any exist. After putting the fence up we left a small gap in one corner and



THE YUM YUM—A FAMOUS EARLY PEACH IN GEORGIA.

gradually drove out most of the rabbits that were inside. We then cleared off the brush from the inclosure, and it was not long before the two or three dogs had disposed of the rest till not a solitary jack was left, not one. And since then I think I can conscientiously say that not a dozen have got inside, and these few either through a partly open gate or else by following a badger burrow. Probably not one of these lived inside a half hour, as the land being clear of brush and open, the dogs quickly spied him and he was soon disposed of. A very slow dog can catch a jack inside of the fence in a few minutes, for as soon as he chases it, it becomes excited and demoralized and flies at full speed against the netting, which he fails to see until

In a future communication I will, if desired to do so, describe an automatic rabbit corral, as an attachment to this fence, in which the rabbits will, I trust, kindly place themselves and remain, so that once a week or so we can go to it and dispose of them without trouble. It can be put up at a cost of about \$6 or \$7.

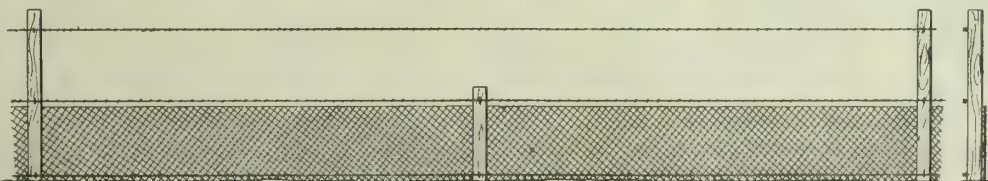
Let no one imagine that the fence once up, his labors in that direction cease for all time. Like anything else, it will need more or less examination and repairing from time to time, but will probably need as little of it as almost any kind.

Mohair.

We are glad to have anything that looks like a glimmer of light on the mohair situation. It has been a long, dark period, and some California goat-growers have grown weary and sent their animals to the butcher. It is, however, a long lane that knows no turning, and we hope

the following note which we have just received from Wm. Macnaughton's Sons, the well-known dealers in wool and mohair of New York, may indeed be the announcement of a new and better era for the Angora:

As we know that your paper reaches a very large number of those who are actively engaged in the mohair industry, we take great pleasure in writing to you regarding the somewhat better feeling which prevails in the market for this stock. During the past four months there have been fluctuations in the foreign markets, which have resulted in somewhat advanced prices. The demand there increased sufficiently to cause an advance, and then fell off enough to cause a decline, but not equal to the previous rise, so that the markets abroad are now on a higher level than they were some time ago.



A RABBIT-PROOF FENCE IN SUCCESSFUL USE IN KERN COUNTY.

too late, and either breaks his neck or is thrown back by the spring of the netting, generally right into the mouth of the dog who has arrived and is ready for that occurrence.

An intelligent farmer in the same district following our example, fenced in some 80 acres; about half of it in alfalfa and half covered with large sagebrush.

It was of course impossible to get all the rabbits out with such numerous hiding-places as the brush afforded, and there must have been hundreds, if not thousands, left in. Nevertheless it is generally understood that within three months from the time he got his fence up he saved enough hay from his 40 acres, or less, of alfalfa to more than pay the cost of the fence. What the returns from his investment will be in the course of the next few years would be difficult to figure, but it will probably turn out to be the most profitable expenditure he has ever made.

That it may not be imagined that rabbits are few in number in that section, it is only necessary to say that in one rabbit-drive there last autumn 13,000 were killed. There are many miles of such fence being put up there now by people who have evidence of its effectiveness directly under their eyes.

The greatest demand at all times was noticeably for the finer qualities, and this is also true of our own market. As usual, in sympathy with the foreign demand, our consumers have taken hold of domestic mohair, and in sufficient force to clear up all the stock we had on hand. This stock was entirely of fall mohair, and though its staple was rather short, the prices realized were most satisfactory. The cause of the demand for this stock, which has recently been so sadly neglected, is the revival of the fashion for luster goods. This fashion has not yet become general, but we have reason to believe it will. It was this very fashion which caused a demand for mohair and luster wools in years past.

We have recently received letters from growers all over the country who are intending to engage in raising mohair. To encourage such, and still further to establish the industry, we are now beginning again to make advances after consignments have been received.

THERE are over 200,000 sheep in the vicinity of Kelton, at the north end of Great Salt Lake. These animals are reported to be in better condition than ever the flocks were known to be at this time of the year.

SOME of the large land-holders of Southern Humboldt county, Cal., are considering the advisability of dividing their holdings into larger tracts, to be leased for dairy purposes.

The Yum-Yum Peach.

We give on this page a picture of a peach which is attracting much attention in the early fruit regions of Florida and Georgia, as an extra early peach. H. W. Reed & Co. of Waycross, Georgia, who are propagating the variety, assure us that they regard the Yum Yum the finest well-shaped early peach yet introduced in the South. They report that in 1888 two trays of the Yum Yum, holding 50 peaches each, sold for \$5 per tray in the Boston market, while 13 crates of the Peen-to sold at the same time for \$2.50 per tray. Messrs. Reed & Co. in their "Cherokee Annual" for 1889, gave the following account of the peach:

The Yum Yum is a seedling of the Peen-to, and originated with Dr. Cushing of Waldo, Fla., where the tree has borne several crops of fine early peaches. It ripens about the time of, or a little before the Peen-to, is medium size, slightly long to round in shape, having a small suture on one side, and a short recurved point. In color, it is a rich waxy, or cream, slightly tinged with red on one side. Juicy, a most delicious flavor, being free from the nayan or bitter taste found in the Peen-to, and parts fairly well from the seed. The tree is a vigorous grower, a sure and prolific bearer. This year a late frost caught the tree full of small fruit that, undisturbed, would have ripened in the early part of April. The tree immediately put on another full bloom and yet made a fine crop of peaches that ripened as early as the Peen-to, some of which measured eight inches in circumference. Our attention was called to this tree by Col. Livingston of Waldo, who regards it as the finest early peach in the South.

After investigating its merits to their satisfaction, Messrs. Reed & Co. purchased the original tree, and have been propagating the variety for sale. Its season is put down for Georgia as April and May. We hope it may be tried in California.

QUERIES AND REPLIES.

The Snow Plant.

EDITORS PRESS:—Your note of recent date inclosing a letter of inquiry from Seward Cole of Los Angeles county is at hand.

He asks for information concerning our famed "Snow plant" (*Sarcodes sanguinea*) and first, if there is such a plant. Yes. It is well known to most Californians that there is a most striking and wonderful plant growing in the high Sierras, which has been very inappropriately named "Snow plant," for no reason that I can think of but that it is found usually well up in the dense forest where snow lies deeply in winter. The plant is, in appearance, very unlike snow, being bright-red in all its parts; and also, not at all fleshy in form, but compact, and rising out of the black mold like an elongated pine-cone.

The Snow plant—so called, belongs to a class of vegetables that are mostly parasitic upon the roots of other plants, though whether or not this plant is such has never been satisfactorily determined. I have excavated many a deep cavity or trench with spade and pick without detecting parasitism to entire satisfaction. I believe parties connected with the California Academy of Sciences have given especial attention to determining this question by careful and labored investigations the past season, and for one, I watch for interesting results when published.

My correspondent asks "to know a little about the habitat, genera, season, nourishment, etc." of this strange plant.

Briefly:—Our species stands alone as the type of a distinct monotypic genus—*Sarcodes*, aptly so named by Dr. Torrey on account of the exceeding fleshiness of the plant, *sarkos* meaning flesh in Greek.

The thick stems rising, as I have said, like elongated pine cones from the earth, are often several in number from near the same source. Usually but a few inches high, they often become a foot or more in height, the spike of flame-colored flowers arranged in spirals, each flower a thick cup or jug of pink porcelain, bordered by fine lobes in the most approved style of fantastic Majolica ware, and each with a long, pearl-bordered, beautiful strap of crimson passing up one side and turning over the top of the vessel as if to shield it from receiving its predestined occupants—until the proper time, at least.

As the flowers mature, they turn outward from this protection and eventually downward. All this is connected with fertilization—too abstruse a subject to be entered upon here. The plant remains in bright color for a long time—a month or so—then shrivels and turns to a jet black, usually maturing a large quantity of seeds, which, strange to relate, have never been grown successfully by florists, though many have attempted the much-desired object.

The Snow plant is native to the high mountains of California and Oregon alone, usually in heavy fir forests at middle elevations of 4000 to 7000 feet, where, when first seen by the ap-

precipitate stranger, it creates the most profound emotion.

It is said that when first seen by Dr. Torrey, it was when he was approaching the Sierra in the famous overland stage of the early period. A single plant stuck in a bottle to ornament the window of a saloon in Carson caught his eye. The great botanist jumped out of the stage, seized the plant and became so engrossed in trying to obtain its history and place of growth that he chose rather to pursue the meager clues given him than to keep his place in the stage, and so forfeited his right to ride to Sacramento.

My correspondent writing from Los Angeles county may not be far from the San Bernardino mountains. If so, he may in June or July take an excursion into the forests of that range—notably near old Greyback—and see for himself this most beautiful and strange plant, and then I know he will exclaim with the Queen of Sheba, "The half was not told me."

I will soon forward to Mr. Cole a copy of our "Forestry Report," and in it I will place a specimen of the Snow plant; but this poor wrinkled black thing will not give any idea of its beauty in life.—J. G. LEMMON, Botanist for State Board of Forestry, Lemmon Herbarium, 1015 Clay St., Oakland.

Raising Peanuts.

We have had several inquiries lately about the culture of peanuts—how to prepare the ground; when and how to plant; what care and cultivation the vines require, and the time and manner of harvesting.

We hope that some of our readers who have had success in peanut-growing will tell their experience, through the RURAL, for the benefit of those who are new to the business. Meanwhile we reprint portions of an article which appeared not very long ago in the S. F. Chronicle.

The peanut is generally believed to be indigenous to Africa, but several varieties have been found wild in Brazil. It is a dwarfish plant, with innumerable low-trailing branches; the flower is small and yellow, and after it falls away the forming-pod is forced into the soil by the elongation of the rigid deflexed stalk to which it is attached. It then rapidly enlarges and forms a thick-shelled, indehiscent pod, with a strongly netted surface, often contracted between the seeds, of which it contains two or three. The flower stalk is a trailing vine, like that of the melon and cucumber, the blossoms appearing at short intervals along its length. The flower opens and blossoms close down to the stalk in the notch formed by the leaves, and it is not until the petals have fallen and the seed-pod is formed that the pushing-power is made manifest. Gradually the nut is pushed down to the ground and then into it. If by any accident this is prevented the fruit ceases to grow.

The culture of peanuts is not difficult. Good corn land is generally selected, care being taken that there is nothing in the soil that would stain the shells. In this State a sandy loam that never suffers from drought should be chosen. In fact, good melon land is good peanut land. The bottom lands on the borders of rivers that receive a winter or spring overflow are admirably adapted for the growth of this nut.

Planting-time may be had in March if there is no frost, or from the 1st to the 15th of April. The ground should be plowed five or six inches and then harrowed. The nuts (which must, of course, be planted raw) should be taken out of the pod without breaking the skin, the best plan being to crush the shells with a light wooden hammer. The kernels are then planted in rows four feet apart and 20 inches from hill to hill, with three or four kernels in each hill, covering them about two inches deep. The plan adopted by a successful Chinese grower is given as follows: "Plant to feet this way, two feet that way, you want 90 pound one acre; plant to feet this way, 20 inches that way, you want 140 pound one acre."

When the vines begin to blossom—which will be when they are about six or eight inches long, the plant should be covered with an inch of soil for four or five inches around the center, taking care, however, to leave the ends of the vines uncovered. All that is necessary after this is to keep the land free of weeds.

The plan adopted in the South is to mark off the land in furrows three feet apart, and in these two peas are dropped at intervals of 18 inches and covered in an inch and a half deep.

When the nuts are ripe, which will be in October, the California peanut farmer runs a furrow on each side of the row of the vines with a bull-tongue plow, close enough to loosen the soil and plants; then he takes a light, narrow grubbing hoe, digs up the vines and turns them over to dry, taking care never to gather in rainy weather nor when the ground is very wet. After allowing the vines to lie in the sun for a day, the best plan is to stack them, after the dew has dried, in the following fashion: Drive a stake of four or five feet long firmly into the ground, spreading dry grass or hay around it, so as to keep the vines from the damp ground. Then lay the vines around the post with the roots upward, taking care, to leave space around the stake for the purpose of ventilation, and when the stake is of a proper height thatch it with a straw cap tied to the stake. Let the vines remain in stack from three to five weeks, and then pick the nuts and send to market.

A clean, bright appearance of the pods is

largely to be desired, and to get this the nuts are sometimes put into a sort of winnowing cage, which is turned by either hand or power. There are two sorts of peanuts grown in California—the white and the red—and to make the white variety still whiter the nuts are sometimes treated to sulphur fumes. The red variety, by the by, is more easily cultivated and sells for about the same price. The white variety runs along the ground, while the red grows upright in a bunch. The picking is rather arduous, but the labor will in all probability be modified by the use of machinery.

In 1872, as for several years previous, there were imported into New York a half-million bushels of peanuts, the bulk of them coming from Africa and the rest from Spain. The Spanish peanut was of the variety known as the Amande de Terre (earth almond). It was brought in shelled, and sold from 7½ cents to 10 cents a pound. The flavor of the Spanish nut was mild and sweet, and its purchasers were the confectionery men who used, and still use, it instead of the true almond, especially in that confection known as nougat. The seed of this nut was sown in Virginia in 1878, the product was found fully equal to the foreign nut, and as it could be shipped 2 or 3 cents a pound cheaper, it was not long before the Spanish Amande de Terre was driven from the market. In 1882 Virginia raised 10,000 bushels of the Spanish peanut, the amount being a yearly increasing one.

The peanut industry in California is as yet almost entirely in the hands of the Chinese. Our own farmers, however, are gradually awakening to its importance, and already have marked success and encouragement. In 1884 we raised 34,000 bushels of the nut, some of which were sent to New York as an experiment. The sample was so well received that an additional lot was asked for. The nuts were declared equal to the best Virginia.

California abounds in localities admirably adapted both in soil and climate for successful peanut-raising. At Haywards there are places where seed has been planted in June and vines pulled in November with from 80 to 100 nuts thereon. At Vina there are many large peanut-fields cultivated by Chinese, the nuts being large, white and sound, and the yield being as high as 70 bushels to the acre. At San Jacinto there is some excellent peanut soil—alluvial mold, with just the right proportion of sand, with a hot summer and dry atmosphere the year round. One patch of 12 yards square has yielded three sacks of peanuts at this place. There are plenty of good peanut farms about Clear lake, while the bottom-lands in Sacramento county have been found admirably adapted by the shrewd Chinese for raising the useful nut.

The peanut is a much more useful product than most people imagine. We all know how extensively it is eaten roasted, but therein by no means lies the extent of its value. The nuts contain from 42 to 50 per cent of a nearly colorless, bland, fixed oil, resembling olive oil, and used for similar purposes. The best is obtained by cold expression, but a large quantity of inferior oil is procured by heating the seeds before pressing. It is a non drying oil, changing but slowly by exposure to the atmosphere, and remaining fluid in a cold several degrees below 32° F. The principal consumption of the oil is in soap-making. In 1883 Virginia began the manufacture of peanut flour, the result being a peculiarly palatable biscuit, while Georgia has long made pastry of pounded peanuts. The kernels roasted are largely used for coffee. "The poor man's fruit" is capable of sustaining life for a long time, owing to its peculiarly nutritive qualities; the vines afford an excellent fodder, and hogs will fatten on what they find in the fields after the crop has been gathered.

Drying and Packing Peaches, Etc.

EDITORS PRESS:—Can any of your readers enlighten me on the method of drying peaches? I am a "tenderfoot," and will have my first crop of peaches this season (20 acres). In sundrying, how long does it take? Should the fruit be turned over? Is it better to dry on boards or on stretched canvas or linen? How high should it be from the ground? Should the fruit be shaded in any manner during the process of drying? How is sulphuring managed, and what appliances are used in the operation? What quantity of sulphur is used? What is the best machine in use for peeling peaches, and about what quantity can one person peel during a day of ten hours? Is hand machinery or foot-power used, and where can the machines be purchased? When packed dry, what is the most marketable weight of dried fruit to put in a box? And what is the most marketable weight for green fruit in box? What are the dimensions of said boxes in inches? Should the fruit be picked when very ripe or tolerably green?

THE RURAL PRESS has given many very useful and scientific principles for pruning and cultivation of the peach, but I have seen nothing yet regarding the system of drying this fruit. Any information on this subject will be considered a great favor, as I have no close neighbors who are thoroughly conversant with this industry.

San Jacinto, Cal.

[All of these topics are worth writing on, and we hope our kind contributors will take them up.—Eds. PRESS.]

The New Horticultural Bill.

The following is the full text of the new bill relating to the State Board of Horticulture which has passed both Houses and is now in the hands of the Governor:

An Act

To amend Sections 3, 6 [7], 8 and 12 of an Act entitled "An Act to Create and Establish a State Board of Horticulture, and Appropriate Money for the Expenses Thereof," approved March 13, 1883, and an Act amendatory thereof, approved February 18, 1885, and to add five new sections to said Act, to be known as Sections 14, 15, 16, 17 and 18, and to repeal Section 9 of said Act, and to appropriate money for the uses of the State Board of Horticulture.

The people of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section three of said Act is hereby amended to read as follows:

Section 3. The board shall biennially elect a president, a vice-president, a chairman of the Finance Committee, and appoint from without their own number a secretary, who shall be ex-officio Horticultural Officer, and elect of their own number a treasurer, who shall give a bond to the State, with sureties approved by the board, in the sum of ten thousand dollars, for the faithful discharge of his duties.

SEC. 2. Section six of said Act is hereby amended to read as follows:

Section 6. Said board shall appoint from without their number a competent person, especially qualified for the duties of his office, who shall be known as [clerk] of the Publishing and Quarantine Bureau of the State Board of Horticulture (to hold office at the pleasure of the board), who shall be qualified, by experience and education as a compiler, to correct reports and essays; to present in a logical order all the information to be published, and shall give his whole time in such work, and such other duties as may be required of him by the board and by reason of his official position, and shall have power to enforce all rules and regulations regarding the spread of insect pests, quarantining districts or nurseries [found to be infected]. He shall be paid for his services as [clerk] of the Publishing and Quarantine Bureau of the State Board of Horticulture, one hundred and [seventy-five] dollars per month, to be paid as other State officers.

SEC. 3. Section nine of said Act [is] hereby repealed.

SEC. 4. [Section seven of said Act is hereby amended to read as follows:

Section 7. The said board, and in case of necessity during the recess of the board, the said clerk of the Publishing and Quarantine Bureau, may appoint such quarantine guardians as may be needed to carry out the provisions of this Act, whose duties it shall be to see that the regulations of the board and the instructions of the clerk of the Publishing and Quarantine Bureau are enforced and carried out; said clerk may appoint, in case of emergency, a deputy, who shall have the same power as his own, whose salary shall not exceed three dollars per day for each day's services performed, said services to be paid for by the State Board of Horticulture. The said Quarantine Guardians shall report to said clerk, or to the State Board, all infractions or violations of said directions, regulations, and of the law in regard to quarantine, disinfection and destruction of insect and other pests injurious to fruit, fruit trees or vines, and precautions against the spreading of all the aforesaid named pests and diseases. The salary of Quarantine Guardian shall not exceed \$3 per day, and shall be paid by the owners of orchards and other places and localities under quarantine regulations, and they may maintain an action therefor before any justice of the peace in any township in which any quarantined locality is wholly or in part situated, but in no case shall they have any claim upon the State for such services.]

SEC. [5] Section eight of said Act is hereby amended to read as follows:

Section 8. It shall be the duty of the secretary to attend all meetings of the board [and of the Executive Committee], and to preserve records of its proceedings and correspondence; to collect books, pamphlets and periodicals, and other documents containing information relating to horticulture, and to preserve the same; to collect statistics and other information showing the actual condition and progress of horticulture in this State and elsewhere; to correspond with agricultural and horticultural societies, colleges, and schools of agriculture and horticulture, and other persons and bodies, as he may be directed by the board; and prepare, as required by the board, reports for publication. He shall appoint, subject to the approval of the board, a competent person as clerk, and he shall be held responsible for the acts of said clerk. He shall be paid for his services as such secretary and ex-officio Horticultural Officer a salary of [one] hundred [and seventy-five] dollars per month. [His] clerk shall be paid a salary (as such clerk) of fifty dollars per month, each to be paid as other State officers.

SEC. [6] Section twelve of said Act is hereby amended to read as follows:

Section 12. There is hereby appropriated for the uses of the State Board of Horticulture, as set forth in this Act, out of any moneys in the State Treasury not otherwise appropriated, for the fiscal year ending June thirtieth, eighteen hundred and eighty-nine, the sum of [one] thousand dollars, and the State Controller shall

draw his warrants upon the State Treasurer in favor of the treasurer of said board for the same upon proper demand.

SEC. [7.] A new section is hereby added to said Act, to be known as section fourteen, to read as follows:

Section 14. The president (and in his absence the vice-president) and the two commissioners for the State at large shall constitute the Executive Committee; said committee shall have [charge of] the management of the affairs of the board while the board is not in session. The members of said committee shall receive their actual traveling expenses in attending quarterly meetings of the Executive Committee. The other members of the board shall receive their actual traveling expenses (only) in attending semi-annual meetings of the board.

SEC. [8.] A new section is hereby added to said Act, to be known as section fifteen, to read as follows:

Section 15. Vacancies occurring in any office shall be filled by appointment made by the president of the board [with the consent of the Executive Committee] until the next meeting of the board.

SEC. [9.] A new section is hereby added to said Act, to be known as section sixteen, to read as follows:

Section 16. Said board shall make and publish their reports annually.

SEC. [10.] A new section is hereby added to said Act, to be known as section seventeen, to read as follows:

Section 17. It shall be the duty of the county boards of horticulture to make quarterly reports in writing to the State Board of the condition of fruit interests in their several districts, what is being done to eradicate insect pests, also as to disinfecting, and as to quarantine against new insects, and as to carrying out of all laws relative to the greatest good of the fruit interest. Said board shall publish said reports in bulletin form, or may incorporate [as much of] the same in their annual reports [as may be of general interest.]

SEC. [11.] A new section is hereby added to said Act, to be known as section eighteen, to read as follows:

Section 18. The expenditures necessary to be made in experiments in the different districts shall be determined by the board. On application of one or more of the fruit-growers in such districts, the said board shall select such person or persons to make such experiments, and pay the expenses thereof. The sum of not exceeding one thousand dollars for traveling expenses shall be allowed when the board or the Executive Committee shall deem it necessary to send either the [clerk] of bureau or secretary to direct and supervise such experiments; [provided, that not more than one thousand dollars shall be expended in any one year for such traveling expenses.]

SEC. 12. This Act shall take effect immediately.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING JAN. 22, 1889.

- 396,547.—OIL-BURNING LIMEKILN—Clark & Mapel, S. F.
- 396,649.—CABLE RAILROAD TURNABLE—W. Davidson, Oakland, Cal.
- 396,651.—BALE TIE TWISTER—Chris. Franco, Livermore, Cal.
- 396,555.—CAN OPENER—T. H. Gilham, Cortez, Nev.
- 396,480.—SULKY PLOW—G. W. Haines, Stockton, Cal.
- 396,562.—DRIER—A. J. Hatch, S. F.
- 396,564.—EXTENSION LADDER—H. T. Hayes, Oakland, Cal.
- 396,565.—EXTENSION LADDER—H. T. Hayes, Oakland, Cal.
- 396,573.—CAMERA-CARRYING CASE, ETC.—Jas. H. Johnson, S. F.
- 396,440.—BEVERAGE—W. B. Starbird, Stockton, Cal.
- 396,447.—CULTIVATOR—H. H. Taylor, Santa Rosa, Cal.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

THE SOUTHERN NEGRO AND COTTON.—Cotton has long since ceased to be the product of the negro, as remarked by the New Orleans Times-Democrat. When the war ceased, nine-tenths of it was raised by the colored race; to-day, three-fifths come from white farms. The white States and white districts have become the cotton centers of the South. The negro parishes of Carroll, Tensas and Madison, the finest country in the world, where the yield is greatest and the staple the finest, produce far smaller crops than they bore 30 years ago, while the white counties of Texas have increased their production four and five fold. This fact attracted the particular attention of Prof. Hilgard, who prepared the census report on cotton, and he notes the singular coincidence that the bulk of the crop of Mississippi is raised in the hills, where the yield per acre is small, instead of in the bottoms, where every condition is favorable. The fact did not seem to strike him that the true reason lay in the fact that in the hills the cotton was raised by the whites; in the bottoms by the negroes.

FORESTRY.

The Nation's Forests.

The first step in the effort to provide for the conservation of the forests on the national domain should be the withdrawal from sale of all forest-lands belonging to the nation. It will not be necessary to preserve and maintain all these forests permanently, but the extent of forest-territory which will be required by a practical plan of forest-preservation and management for our Western mountain regions cannot be at once precisely determined. A thorough examination of these regions, and of the agricultural country depending upon them for its water supply, will be necessary, in order to show what forests must be retained, and what tracts of timber can be put upon the market without injury to the important interests involved. Until such an examination has been made, none of the forest-lands now belonging to the United States should be sold.

The second step should be to commit to the United States army the care and guardianship of the forests belonging to the nation. There is in time of peace no other work of national defense or protection so important as this which the army can perform, and it is plain that under existing conditions the forests on the national domain will not be—indeed cannot be—adequately guarded and protected by any other means. The measures which have been tried, including those now in operation, or nominally in operation, have proved almost ineffective. The forests on the public lands are pillaged by settlers, and by the employees of railroad and mining companies, without scruple or limit. Other instruments will have to be employed if the forests are to be preserved. Their complete and final destruction, with that of the soil which sustains them, is, under the present system, or want of system, only a question of time, and of a very short time.

The officers of the United States army are educated by the nation for its service, and they constitute a body of men not equaled by any other in our country in their equipment for guarding and protecting the great forest-regions belonging to the nation. They possess every kind of fitness for this work in greater degree than any other class of men, and if authorized by law to undertake this service they would have the power and the means necessary for its performance, while everybody else is at present inevitably powerless and incapable. As there is likely to be very little work for the army hereafter in the care of the Indians, it will be available for this service of guarding the national forests. The work can be done well by the army, and it would cost nothing, or very little, while any other plan would necessarily be both ineffective and costly. This guardianship and defense of the nation's forests by the army of the nation should be continued and maintained until a sufficient number of adequately trained and equipped foresters has been provided by the National Government for the administration of a complete and permanent system and policy for the management of the forests on the public domain.

This brings us to consider the third step. This should be the appointment, by the President, of a Commission to make a thorough examination of the condition of the forests belonging to the nation, and of their relation to the agricultural interests of the regions through which the streams flow which have their sources in these forests, and to report, with the facts observed, a comprehensive plan for the preservation and management of the public forests, including a system for the training, by the Government, of a sufficient number of foresters for the national forest service.

The Commission should determine what portions of the existing forests on the public domain should be permanently preserved, and in what manner the remainder should be disposed of. The national forests can be so managed that they will be perpetually reproduced, and will yield forever an abundant supply of timber for the inhabitants of the adjacent country, and a revenue which will more than sustain the cost of the forest service. A National School of Forestry should be established at a suitable place in one of the great mountain forests on the public lands, and its equipment should be as thorough and adequate for its purpose as is that of the National Military Academy at West Point.—*Garden and Forest*, Jan. 30th, 1889.

OUR WOOL IMPORTS.—For the ten months ending October 31, 1888, the value of the imports of manufactures of wool was 11 per cent more than for the same time last year. The increase was chiefly in women's and children's dress goods and miscellaneous merchandise. Though there was a slight falling off in the value of cloths, there was an increase in the quantity. There was an increase in the quantity of yarn of nearly 29 per cent. Clothing wools have been freely imported, and more of them have been retained for home consumption instead of being exported to Canada, etc. The export of wool is in some years a matter of considerable moment. In 1887 it amounted to 6,214,410 pounds clothing wool alone, over 3000 pounds of which were sent to Nova Scotia and neighboring provinces, 933,000 pounds to England, and 1,773,000 pounds to Belgium.

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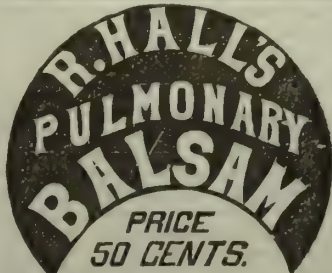
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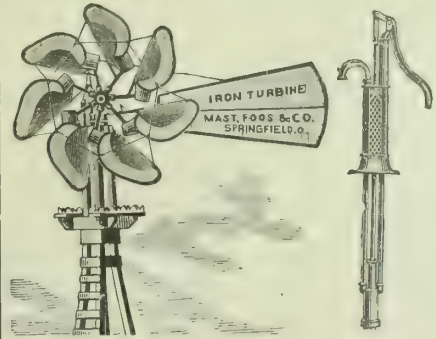
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AGRICULTURAL NOTES.

CALIFORNIA.

Butte.

A LEASE OF COUGARS.—Chico *Enterprise*, Jan. 30: D. A. Hannah was lucky enough to bag three California lions last Friday, and brought their pelts last to Chico this morning, where they were gazed upon by a large crowd. Mr. Hannah has a small mountain ranch on Mud creek, about ten miles from town, and has suffered considerable loss of stock from the depredating California lions, but was unsuccessful in capturing any of them until last week. He had corraled his hogs, for the lions preferred bacon to any other kind of meat, and were rapidly demolishing his herd. On the day above mentioned he heard a terrible squealing at the corral, and got there in time to see a full-grown lion leaping over the inclosure with a dead hog in his mouth, the body thrown across his back. Close beside him ran a lioness and a full-grown cub. Mr. Hannah ran to the house, got his rifle, and taking three or four dogs, started in pursuit. They soon came upon the animals feeding upon the carcass of the hog. One shot killed the lion, while the lioness and cub took to a tree. Mr. Hannah then fired at the female, but only wounded her. She sprang for him, but the dogs seized her, and another shot finished her. The cub was then dispatched. Mr. Hannah will receive \$10 each for the scalps, which is not a bad sum for one day's hunt.

Kern.

JAPANESE BUCKWHEAT.—San Diego *Sun*: A Kern county farmer, who has experimented successfully with Japan buckwheat, says that the berry is much larger than the American buckwheat, and that twice the number of pounds can be produced to the acre, while it makes cakes superior to any other. He finds that it can be sown at any time, and is satisfied that this Japan product will prove far more profitable than wheat, when the farmers of other counties can be induced to make the trial.

Lake.

TEA AND FLOWERS.—Lakeport *Avalanche*, Jan. 24: A. H. Poe brought us a bouquet of roses and choice cut-flowers, which indicate very warm weather in his neighborhood. He also brought some genuine Japan tea, which he has grown with considerable success. He informs us that our climate is well adapted to the growth of tea, and next season he will go into its culture more extensively.

Los Angeles.

WORKING UP THE OLIVES.—Pomona *Progress*, Jan. 24: G. C. Muir has been engaged for over ten days in picking the 3000 gallons of olives he has gathered from his seven acres of trees this season. He has given much study to the work, and visited the largest olive-packing houses in Southern California to learn the business. He has picked 1500 gallons of olives in kegs ready for shipment, and 1000 more gallons are now in lye vats. Mr. Muir has also been making olive oil and has had unusual success.

CUCUMBERS.—Cor. *Riverside Press*: Mrs. Rogers of Azusa has a trellis at the kitchen door on which morning-glories climb and bloom. About the first of July last a stray cucumber plant made its appearance through the ground at the foot of this trellis, and Mrs. R. would not allow the little volunteer destroyed, but gave it a place on the trellis along with the morning-glories, and soon the two became so intertwined that the morning-glories appeared to bear cucumbers and the cucumbers to bloom as the morning-glories. It was soon evident that the small family could not use the products of the vine without resorting to some system of storage; and Mrs. R. began gathering them for pickles. The first were picked September 1st and the last on December 12th. The total product of the vine was 502. Those for pickling were gathered at a size averaging 25 to the quart, and those for table use were allowed to grow larger. This volunteer vine furnished all that was wanted for table use and a surplus of 4½ gallons of pickles. The vine grew on one of the rocky lots for which Azusa is noted.

Nevada.

MAPLE SUGAR.—Grass Valley *Union*, Feb. 3: Mr. Moulton, proprietor of the Brier ranch, near the Upper Colfax road, has been making sugar of an excellent quality from the native California maple trees of his own planting of a few years' growth. Very few persons are aware that the native maple is rich enough in saccharine juice to make sugar, but Mr. Moulton has demonstrated the fact successfully.

Modoc.

CATTLE DROWNED.—New Era, Jan. 26: W. H. Bowman, foreman of the X. L. ranch, informs us that recently, while driving a band of cattle on the west side of Goose Lake, they stampeded and ran out on the ice and about 50 of them broke through. The cowboys had great difficulty in getting them out. As it was, eight head succumbed to the intense cold of the icy waters.

Placer.

FRUIT SHIPMENTS.—Auburn *Republican*: The fruit shipped from the single town of Newcastle in 1888 footed up to 9,922,633 pounds. A. Moger, manager of the Newcastle Shipping Co., tells the *Republican* reporter that this fruit, taking it all on an average, was sold for at least 2½ cents a pound by the producer. At that price the returns would be \$248,065.82; but it

is a low estimate and the actual receipts were undoubtedly much larger.

San Benito.

HORSE MARKET.—Free Lance: The next monthly Horse Market will be held at Hollister, Sat., March 2d. One person has already stated that he will enter 18 horses, another eight, another ten. The market will be extensively advertised among horsemen all over the State, and it is probable that a large number will attend.

San Bernardino.

FROM CLOVERDALE PRECINCT.—Editors *Press*:—There is a large amount of new land being broken up in this neighborhood in anticipation of the good season that everybody is expecting. One of the results of so much clearing is a noticeable diminution in the number of jackrabbits, as they seem to be shy of the clear land. There is no grubbing necessary here. If the brush is too large to plow down, an iron rail about 14 feet long is attached to the tail of a wagon and four horses drag it over the brush, breaking it down, after which it can easily be burned. Where the brush is small it is plowed under as much as possible, and, after harrowing, a horse-rake is run over the ground, piling the brush up ready to burn. Where else in the world can a man clear his land so easily and plant a crop at the same time? ... My peas, radishes and lettuce, planted about the middle of December, are up and doing well. Onions, carrots, turnips and beets, planted at the same time, did not do so well. I think the heavy rains packed the soil too hard on the seed. We need more rain to put new land in good condition for plowing. ... The *Rural* comes regularly like a ray of sunshine, and is met by the answering smiles of the whole family, each of whom takes a turn at it. Those too young to read admire the pictures. —L. S. LYMAN, Alessandro, Jan. 30th.

RIVERSIDE ORANGES.—Cor. *Bulletin*, Feb. 1: Our orange crop is good and prices are good. Owing to the total absence of scale pests in San Bernardino county, orange-growing is in great favor, and planting is again as active as usual, most of the purchases of land being for improvement. Riverside being the principal orange-growing center, our crop being expected to aggregate 800 to 1000 cars, naturally furnishes a great deal of labor, and at present the supply is greater than the demand. There will probably be enough employment for all when the orange-picking season opens, which will not be before the middle or end of February. Our oranges are hanging yellow on the trees and have been for two months, but are not by any means as ripe as they look, and are not, consequently, in as good demand as they will be further on. Shipments East have not commenced in earnest for various reasons, among which are the unripeness, the risk of shipping in freezing weather, and the presence of the Florida crop on the market. Packers, however, are getting ready and doing a little. Some of them are employing Chinese to the exclusion of white labor, which is causing dissatisfaction among unemployed white laborers, many of whom have bought homes and expected to pay for them by working in our orchards and vineyards. A large meeting was held here a few days ago to devise steps to furnish employment to deserving white people and discourage the employment of Chinese. At the meeting a committee of five was appointed to see the fruit-growers, packers, and employers of labor generally, urging them, as far as possible, to give their labor to white people.

Shasta.

FAIR ASSOCIATION.—Redding *Free Press*, Feb. 2: The Shasta County Agricultural and Mineral Association has been reconstructed; many of those who possessed shares have sold out, and the number of directors has been reduced to five, as follows: Pres., A. C. Brigham; Vice-Pres., F. M. Swasey; Sec'y, H. E. Hodson; Treas'r, Fred Grotschend, Dr. Miller and R. Bostrick. The association intends to give a fair in August or September.

Santa Barbara.

SUGAR BEETS.—The Santa Maria *Times* publishes a letter from W. Mays Newhall to W. C. Adam, respecting seven different samples of sugar beets grown in Santa Maria valley, in different localities, last summer. Mr. N. says: I have obtained from Mr. Spreckels the analysis of the sugar beets sent to that office by you, and herewith send you a copy of the results. As I understand the matter, the principal test of quality is in the degree of polarization. At Watsonville all beets are accepted at the factory which polarize 12 degrees and over, and the price paid for beets there is \$4 per ton for those showing a polarization of 12 degrees, and 50 cents per ton for each degree of polarization above that. It would seem, therefore, from the analysis that the samples sent are unusually good, as five of the seven showed a polarization of 12 degrees, and the highest, the sample of J. C. Martin, showed a polarization of 16.97 degrees. At the office of Mr. Spreckels the opinion was expressed that the results of the analysis showed a very flattering prospect for your valley in the raising of sugar beets.

Santa Cruz.

PAJARO VALLEY APPLES.—Watsonville *Pajaronian*, Jan. 31: Apple-orchards are being eagerly contracted for by packers. The Pajaro valley is now the leading apple district of the State, and its apples are unexcelled for shipping purposes—in that particular being vastly preferred to Oregon apples. (The latter will not

stand shipment to the South Pacific islands.) At the present time five firms are engaged in packing and shipping apples, exclusive of farmers who handle their own orchards. These packers maintain extensive establishments and keep a number of men constantly employed in sorting apples from the time the picking season closes until the supply is exhausted. At present they have a small portion of last year's crop on hand—mainly Newtown Pippins—but as prices are good they expect to have all sold during the coming month. The apple business of this valley is annually increasing in importance.

Stanislaus.

THE CHAMPION GUM-TREE.—Modesto *News*, Feb. 1: A. Shearer, who lives nine miles northwest of Modesto, has a gum tree on his property that measures eight feet in diameter! Mr. Shearer believes the tree is the largest one of its species in Stanislaus county.

A HORSE-FARM.—Last Saturday we paid a visit to the breeding-farm of L. A. Richards, 2½ miles south of Grayson. Our stay was limited, but Mr. Richards obligingly took us to view the fine stallion "Richards' Elector," by "Electioneer," and his numerous progeny (35 Elector's colts at the place). Elector is a dark bay, about 15 hands high, 9 years old, a finely-bred stallion. Of his progeny, "Electric," coming five, has a record as a three-year-old of 35. But the dandy is "J. R.," two years old, with a record of 33½. Out of five three-year-olds of Elector's first lot of colts, four of them will trot in 2:35 or better. It is worth going miles to see the fine intelligence of Elector's colts, and their extreme gentleness is remarkable. We were also shown the beautiful Percheron-Clyde stallion "Jim Blaine," 18 hands high, weighing 2100 pounds. For so large an animal he has a fine movement.

RESULTS OF IRRIGATION.—As a proof of the beneficial effects of irrigation, we were shown by J. H. Prouse, of Knight's Ferry, a tract of land which yielded him last year an immense amount of corn, planted after the harvesting of an equally heavy crop of hay on the same land. Mr. Prouse's advice to the farmers in the valley is to "go and do likewise."

Sutter.

WATERMELONS IN FEBRUARY.—Sutter *Farmer*: B. G. Stabler, near Yuba City, raised some fine watermelons last summer, and during the fall put several away in the cellar to keep them as long as possible. He has several now in good preservation. Cutting one for the seed a few days ago, he secured 735 seeds, the melon being 28 inches long, 10 inches wide and weighing 64 pounds.

Tulare.

GRAIN PROMISING.—Visalia *Times*, Jan. 31: J. J. Cairns of Woodville, who is farming 12,000 acres of land, says that the present outlook for an abundant harvest in Tulare county is better than he ever saw it before at this time of year. He sowed 8000 acres before the first of January, and the grain is up and growing as rapidly as one could wish. The frosty weather is proving a benefit to the growing crops, preventing their too rapid growth. In regard to rain, Mr. Cairns said that none would be needed for two weeks, as the ground is full of moisture.

SAINFOIN.—A sample of esparcet grass, having a tap root 28 inches in length, was brought to the *Times* office yesterday by J. A. Dahlem, who resides 4 miles southeast of Hanford. The seed was planted on the 17th of March last, and was irrigated but once. Mr. Dahlem sowed two pounds of the seed as an experiment, and is so well pleased with the result that he will sow ten acres this season, beginning about the middle of next month. He will raise it for the seed, and will sow 15 or 20 pounds to the acre, according to the productive quality of the land. For pasturage purposes he says that it should be sown thicker. This forage plant is attracting much attention all over the Pacific Coast at present, and Mr. Dahlem, who was familiar with its culture in Germany, is quite positive that it will be successfully grown in this valley. It has some advantages over alfalfa, among which may be mentioned its non-bloating qualities, and it will thrive with less irrigation than alfalfa does. In the "old country," fields of it have been kept productive for 20 years, without re-sowing.

Ventura.

EDITORS PRESS:—We have had no rain for 39 days, and the east wind, from the desert, has been blowing almost constantly for the past two weeks. Some patches of barley are yellow and almost dead; others will stand it a little longer. Grass is drying up on the foothill ranges. Alfalfa is making an attempt to bloom before dying, but the bloom has no honey. Bee-keepers say if the first flowers do not yield honey, the rest will not throughout the season. —J. F. MCINTYRE, Fillmore, Feb. 4, 1889.

Yolo.

AN OVAL ODDITY.—Winters *Express*: G. M. Gray brought to this office on Thursday what, at first glance, appeared to be a soft-shelled egg. Upon investigation, however, an egg with a hard shell was found to be encased within the outer shell or skin. The intervening space between the two shells was filled with a liquid substance which made the whole appear as large as a goose egg.

PLOWING BY STEAM.—Woodland *Democrat*, Jan. 31: The steam plows have been received by Webb Curtis, and yesterday were put to work in Reclamation District No. 108. A spectator says that the work was done in fine

style. The traction engine walked off with eight 12-inch plows at the rate of 2½ miles per hour through the virgin soil of the tules—wire grass and tule roots, and threw the sod splendidly. Mr. Curtis has about 15,000 acres of this land to seed this year and will have another and larger engine at work soon. Both engines will be run night and day.

Yuba.

MIDWINTER FLOWERS.—Marysville, Jan. 24: A novel exhibition of a floral character goes down by the Oregon express from this city tonight for display at the rooms of the State Board of Trade in San Francisco. It has been gathered by the *Appeal* from the gardens of Marysville and Yuba City to day, and all specimens sent are exclusively of open-air production. The object is to afford ocular demonstration to Eastern visitors now in San Francisco that this part of the State possesses a climate as mild as that of Southern California. Included in the flowers sent are camellias, chrysanthemums, Japanese loquat blossoms, heliotropes, carnations, violets, marigolds, marguerites, crocuses, fuchsias, magnolias, and eight different varieties of trees. Among the plants represented by fresh foliage are banana, hydrangea, Johnsonia lily, passion vine, castor bean, camphor, oleander, orange, lemon and olive. The display, while not large, is creditable and representative. [The exhibit reached this city duly and was set up at the Board of Trade rooms, where it proved an object of interest and admiration to beholders.—EDS. *Press*.]

ITEMS.—*Appeal*, Feb. 1: The work of preparing ground on the south bank of the Yuba river, west of D-street bridge, for planting Bartlett pear trees, has commenced. A few acres will be put in as an experiment, and if the trees thrive, P. George will plant the whole acreage in Bartlett pears. ... Can-making is in progress at both the Sutter and Marysville canneries. Each one is turning out about 3000 cans per day. ... Sheriff Inlow is planting a large orchard upon his ranch in this county. It consists of peach, apricot, plum, pear, etc., and will cover 85 acres. ... Most of the orchards in and around Yuba City are now being sprayed with a mixture that gives them a white-washed appearance. ... The entire area to be planted in Yuba and Sutter counties this year, in trees and vines, will not fall much short of 5000 acres.

NEVADA.

A SUBTERRANEAN SPUD-FIELD.—Virginia *Enterprise*, Feb. 2: A year or two ago some miners sunk a shaft at the mouth of Six-Mile canyon, in search of placer gold. After attaining a depth of about 90 feet, work was discontinued. Two or three days ago they concluded to sink the shaft to a greater depth. When one of the number descended to the bottom, the first discovery he made was that a little potato ranch was flourishing down there. The vines were of rather a sickly hue, but a little prospecting developed quite a nest of new potatoes about the size of hens' eggs. Samples of these potatoes, grown nearly 100 feet beneath the surface of the earth, are to be seen at Bierke's saloon. The seed potatoes were probably thrown into the shaft by children playing in the neighborhood.

WASHINGTON TERRITORY.

HOP SALES.—Orting *Oracle*, Jan. 25: E. A. Lorenz of Orting sold this week to J. Kincaid 231 bales or 21 tons of hops for 17½ cents a pound—a good sale at this season of the year. The entire quantity will be shipped immediately to Glasgow, Scotland. Mr. Kincaid averred that this lot of hops was as fine in quality and condition as he had ever seen in Payallop valley. Henry Beckett also sold 66 bales last week to Isaac Pincus of Tacoma for 12½ cents, but this lot was slightly damaged from having remained too long in the field on account of the scarcity of hop-pickers.

THE GRAIN-FIELDS.—Walla Walla *Cor. Oregonian*, Jan. 16: A fine snow has fallen, and provided an invigorating covering to the immense wheat-fields on every hand. This snow is taken by our farmers and those interested as a good token, a harbinger of a fruitful year, and, of course, proportionate prosperity and all that follows in its train. The grain acreage, by reason of an open fall, and the stimulation afforded by the handsome price of wheat for several months past, will be increased fully one-fourth, so that the coming harvest will cover not far from 100,000 acres immediately adjacent to this city. With the usual increase on Eureka Flat and other sections of our county, put down at about 25,000 acres more, and the crops averaging as usual, the output of Walla Walla county will assume enormous proportions.

BEEF PACKING.—Washington *Farmer*: There is now being organized at North Yakima a beef-packing association, with a capital of \$100,000. A tract of 250 acres of ground north of the city goes into the pool. Joseph Baxter, a large stock-grower at the mouth of the Yakima river, takes \$25,000 of the stock. Other parties put in \$25,000 worth of cattle, and the company will build and own its refrigerator cars. Puget Sound is now butchering over 100 head of beeves, besides mutton and pork, every day from the Yakima range. Alaska and British Columbia are also largely supplied with fresh meats from here, and the business is increasing steadily and rapidly.

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Books and Authors.

By C. L. B.

The greatest of American story papers, the *New York Ledger*, published by Robt. Bonner's Sons, is deserving of the reputation it has attained, the publishers looking well to the interests of both readers and contributors while furnishing a family weekly that is clean, bright, entertaining and instructive.

"THE IMMORTAL." By Alphonse Daudet. New York: John B. Alden, publisher.

This novel, which is a scathing satire on the famous company of the "Immortals," the French Academy, has, it is said, reached in France alone the enormous circulation of 350,000 copies. Be that as it may, the book is indisputably a masterpiece in its strong though merciless portrayal of the follies and vanities of mankind designated "L'Immortal;" and the author's satire will doubtless prove a most effective weapon in the battle waged against slavish Academic trammels.

A LITTLE book entitled "A Christian Science Exposition of the Lord's Prayer," by Joseph Adams of Chicago, has recently been laid upon our table. While some of the views will hardly harmonize with strict orthodoxy, still the reader will find it in the main a sweet benediction. We are charmed with its broad charity and devotional sentiments. Mr. Adams is well known and highly respected by the people of this coast, and we are glad to learn is quite popular in Chicago and is doing a noble work by his public ministrations at McVicker's theater.

From the *Youths' Companion* office, Boston, comes an unusually attractive prospectus for 1889, with promise of six serials, 150 short stories, poems, and illustrated sketches upon a variety of subjects by many noted contributors, among whom may be mentioned the Right Hon. W. E. Gladstone; Lord Wolseley; Profs. Tyndall and Huxley; Justin McCarthy, and Archdeacon Farrar; and among American authors, O. W. Holmes, Jr.; Lieutenant Schwatka; Admiral Luce; Col. Knox; Earl Marble; Andrew Carnegie; James Parton; and about one hundred others. The *Companion* enters more than 400,000 families weekly, and is undoubtedly read by two million readers, which fact speaks more for its high excellence than would any mere use of adjectives, although it might justly claim many of the most complimentary. The publishers announce that any one subscribing now can have the *Companion* free, to Jan. 1st, and for a full year from that date for the subscription price of \$1.75, which offer will doubtless be as eagerly accepted by the young people of the Pacific Coast as by those of the Atlantic.

Volumes 8, 9 and 10 of Alden's *Manifold Cyclopedia* are marked by the same excellence which has distinguished the preceding numbers of this marvelous work; marvelous in that it surpasses all other Cyclopedias in the amount and quality of matter offered for the price. Volume 10, for instance, containing 630 pages, about 100 illustrations, and treating over 1600 subjects, being neatly bound in cloth for 50 cents. A specimen volume may be ordered, and returned if not satisfactory. Address John B. Alden, publisher, New York City.

The Aspinwall Potato-Planter.

The excellent picture on this page represents quite a new claimant for public favor, and one which seems to win its way very thoroughly wherever it is tried. The machine will plant from five to eight acres per day, and all the work of marking, furrowing, dropping and covering is done in a single operation. The planting can be varied in depth from three to nine inches and the covering is uniform. Instead of dry earth on top, the coverers of the planter draw upon the seed the moist or under soil, and the value of this is well known to all potato-raisers, for few things are more fatal to the starting of seed than to cover it with dry earth. The work is claimed to be superior to hand planting. The furrows being V-shaped, the seed must necessarily be dropped in the bottom in perfect line and cultivation can be made early and close.

The planter is adjustable for planting either whole or cut seed, and will plant from 10 to 26 inches apart, and at all these variable distances it drops the potatoes with absolute regularity. The distance of planting is exactly the same in each row.

The mechanical construction of the planter is good. The materials are of the best and will last many years. There is no cog-gear and no fast motion. Excepting the pole and hopper, the whole machine is made of steel and iron.

A corn-planter attachment is now made which will be wanted by many who purchase the potato planter. Altogether in its present high perfection the Aspinwall Potato-Planter is held to be an implement few potato-growers will care to do without. For illustrated circular and full information, address Hawley Bros. Hardware Co., S. F., Cal.

Fashion Notes.

Ladies' Felt Hat and Empire Veil.

FIG. 1.—This hat suggests a Nanon bonnet in its picturesque outline. It is of gray felt and has ribbon bows placed on top and coming toward the front, the ribbon showing a stripe of deep-pink satin and gray

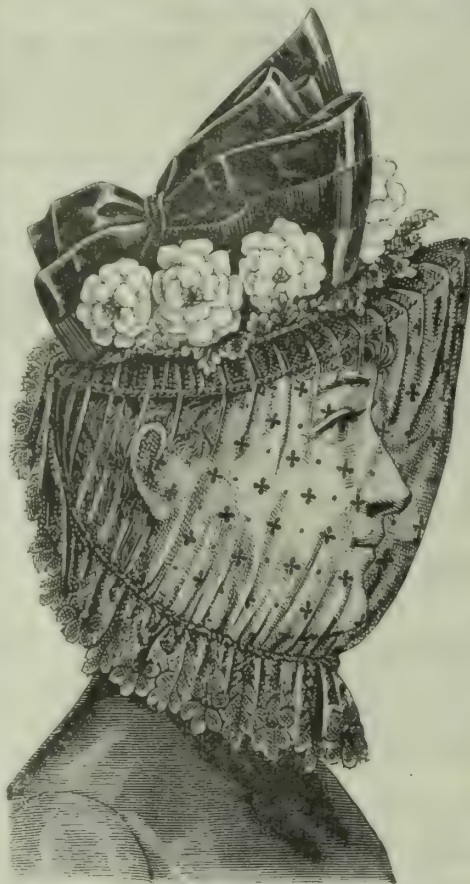


FIG. 1—LADIES' FELT HAT AND EMPIRE VEIL.

grograin. About the crown and reaching under the loops is a monture of pale-pink blossoms that almost wreathes the hat. The felt is sufficiently fine to do away with the necessity of a binding. The Empire veil is of dotted net, the upper frill being of two rows of French lace and the lower frill of one row. It is fastened in the back, and then the narrow ribbons are drawn to make it fit under the chin. The net hangs in bag-fashion and the lace frill frames the face very prettily. Large dotted net is liked for these veils, though a few are seen of plain Brussels net.

Little Girls' Costume.

FIG. 2.—The costume is in the Directoire style, and it is here pictured developed in vieux-rose watered silk and cashmere and green velvet. The fronts hang open in jacket-fashion, and are each folded back in a Directoire revers above a row of three large oxidized buttons, the revers being faced with watered silk. Between the fronts



FIG. 2—LITTLE GIRL'S COSTUME.

is seen a full vest that is shirred across several times at the neck and passed under a broad Directoire girde of folded watered silk. The back, which lies in two pretty tabs upon a full sash-bow of watered silk, is gracefully fitted to the form by side-back gores and a center seam. The skirt encircles the figure in natural folds, and except where it joins the edge of the vest, it is sewed to a belt that is tacked underneath to the body seams. The standing collar is covered above the vest with a puff of cashmere and is of velvet the rest of the way. The full sleeves, which add much to the

picturesque effect, are gathered across the top and bottom and shirred around several times above the elbow; they are arranged on coat-shaped foundations and are finished with cuff facings of velvet.

Very quaint effects may be realized in a costume of this kind, as it develops well in all seasonable dress goods, and may either be of one color or of several, as preferred. In its making, small pieces of dainty material that are left from the fancy gowns of older people may be utilized to advantage. Flowered and figured goods are particularly appropriate for these little gowns, with a plain combining material of the same or a different texture.

The large flare hat is trimmed with ostrich plumage.

California Sunshine.

This is the fitting title of a very delightful little book by Mrs. L. H. Shuey, so well known to readers of our journal as the *Maid-of-all-Work*, the pseudonym which she assumes in her contributions.

The collection includes "The Golden Spike," "Dare," a Napa college alumni poem, "In Memoriam" poems, a C. L. S. C. poem, and the "Home and Field Verses of California Farm Life on the Plains."

We can earnestly commend this work of one who writes so acceptably for our columns to all our readers who love pure sentiment, truth to life and loyalty to California in musical verse.

This book is for sale at book stores and by the author, Mrs. L. H. Shuey, 2509 P street, Sacramento, Cal.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, term of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

A. F. JEWETT—Tulare Co.
F. B. LOGAN—Southern California.
H. G. PARSONS—Southern California.
GEO. WILSON—Sacramento Co.
W. W. THORALDS—San Diego Co.
JOHN L. DOYLE—Napa Co.
J. C. HOAG—San Francisco.
J. G. H. LAMPADUS—San Francisco and Oakland.
CHAS. F. BLACKBURN—Idaho.

CONSUMPTION CURED.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYES, 149 Powers Block, Rochester, N. Y.

Injurious Insects of the Orchard, Vineyard, Field, Garden, Conservatory, etc.,

Remedies for their Extermination.

By MATTHEW COOKE.

Late Chief Executive Horticultural Officer of California. Illustrated with over 750 wood-cuts and 25 pages of classified illustrations. This book is designed for the use of orchardists, vineyardists, farmers and others interested in the subjects treated. It is designed to convey practical information concerning some of the species of insects injurious to the industries of cultivators of the soil, and those interested in earth produce generally. Price \$4, postpaid. For sale by DEWEY & CO., publishers, 220 Market St., San Francisco.

Don't Fail to Write.

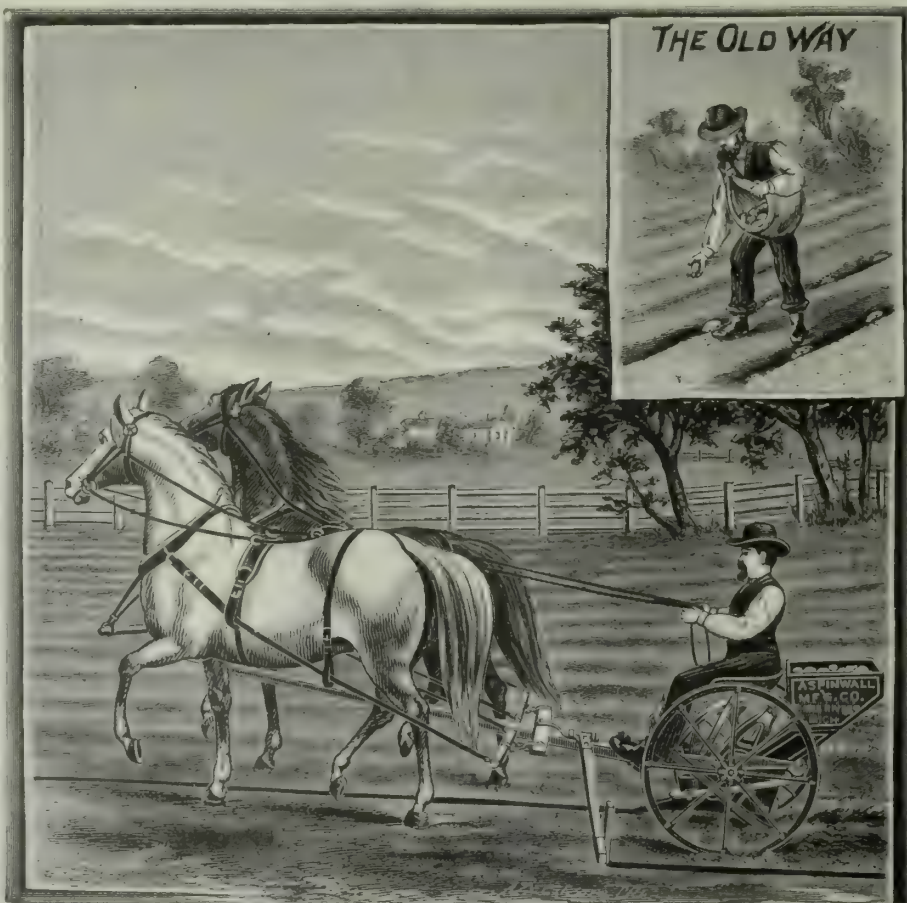
Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or of some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

FIGS AND RAISINS.—We are pleased to learn that Dr. Gustav Eisen of Delano, Kern county, intends to collect, revise and extend his published writings on the fig and the raisin and issue them in a special book on these two important topics. Such a work will be valuable.

FOR INFORMATION, our readers are referred to H. A. Deming, No. 124 Post street, S. F., a leading and well-established house, for paper patterns of plates illustrated in our present issue.

Cheap Money for Farmers!

\$550,000 TO LOAN ON RANCHES ON MORTGAGE; large sums below market rates. S. D. HOVEY, 318 Pine street, San Francisco.

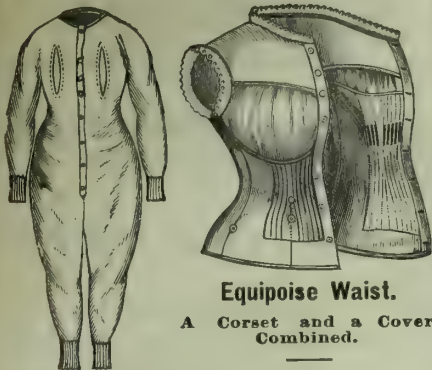


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A Corset and a Cover Combined.

Union Underflannel, Jersey Fitting, Ready Made and Made to Order.

The Perfect Corder Corset, all colors, for ladies and children; button or steel front. Skirt and hose supporters for ladies and misses. All styles of bustles. Gold Medal awarded these goods at State Fair, 1888. Corsets ready-made and made to order. Send for Illustrated Catalogue and price list.

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"It runs with a breath."

THE NEW SINGER VIBRATOR.

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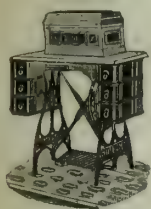
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Offices Everywhere.

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Simple in Construction, Light Running, Most Durable and Complete. Visitors always welcome.

WHITE SEWING MACHINE CO. 108 & 110 POST ST., S. F.

IT STANDS AT THE HEAD!

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Laundry Free for the use of Families HOT AND COLD BATHS FREE.

Terms, Board and Room, \$1.00 per Day And upward.

ROOMS WITH OR WITHOUT BOARD. FREE COACH TO THE HOUSE J. POOLEY.

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A first-rate Violin, good as new, can be bought at a bargain by applying to CHAS. HAMMOND, Music Store, 2513 1/2 Mission St., S. F., and referring to this advertisement.



Bringing Light and Comfort into Every Home. BEWARE OF IMITATIONS!

Manufactured ONLY by the CAPITAL SOAP COMPANY, Sacramento, Cal.

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DRY GOODS, BOOTS and SHOES, Clothing, Hats, Furnishing Goods and Notions.

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SEND IN YOUR NAME

For a copy of their Spring Catalogue, which will soon be issued.

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Apiarian Supplies Manufacturing Depot. MYERS' SLIP SHARES FOR SALE BY D. N. & C. A. HAWLEY, 221 & 223 Market Street, San Francisco

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Any book mailed for retail price.

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BEWARE OF IMITATIONS.

BUY NONE BUT THE GENUINE.

DR. RICORD'S RESTORATIVE PILLS, a specific for exhausted vitality, physical debility, wasted forces, nervous derangements, constitutional weakness, etc., approved by the Academy of Medicine, Paris, and the medical celebrities of the world. Agents, J. G. STEELE & CO., 635 Market Street, Palace Hotel, San Francisco, Cal.

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Orders for EVERYTHING in the Music Line promptly attended to.

GOOD-BYE, my Lover, Good-Bye, &c. 50 other songs, 100 words of heart-truth, 115 sentiments to marry, and sample cards. All only 10 cents. Capital Card Co., Columbus, Ohio.

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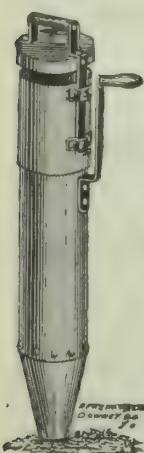
OF CALIFORNIA,
SAN FRANCISCO, CAL.
INCORPORATED APRIL, 1874.



Authorized Capital.....\$1,000,000
Capital paid up in gold coin..... 624,160
Reserved Fund..... 40,000
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General Banking. Deposits received, Gold and Silver.
Bills of Exchange bought and sold. Loans on Wheat
and country produce a specialty.
Jan. 1, 1888. A. MONTPELLIER, Manager.



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SQUIRREL AND GOPHER
EXTERMINATOR.**

Material used costs nothing
No Leather Valves or Bellows
To get out of order.

Every Machine guaranteed to
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Send direct to Patentee and
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MACHINERY**



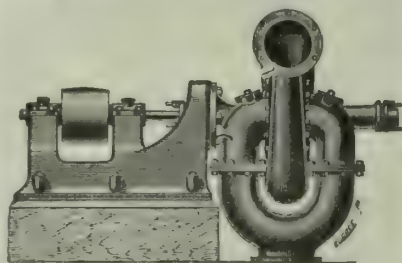
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Willoughby, Ohio.

H. P. GREGORY & CO.

SAN FRANCISCO, CAL.

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**IRRIGATING
PUMPS.**

WE ALSO CARRY IN STOCK THE LARGEST LINE OF

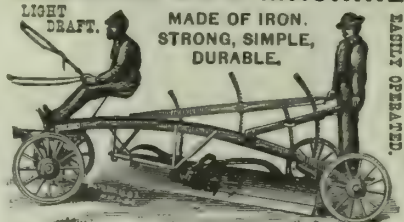
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In the UNITED STATES,

Consisting of Wood and Iron Working
Machinery. Pumps of every
description.

**ENGINES AND BOILERS
A SPECIALTY.**

LAMBORN ROAD MACHINE



TRUMAN, HOOKER & CO.,
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MISSION ROCK DOCK

GRAIN WAREHOUSE,
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75,000 TONS CAPACITY. 75,000
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PEACHES, NECTARINES, APRICOTS, FRENCH PRUNES, PEARS,
ALMONDS, FIGS, OLIVES, POMEGRANATES, JAPAN
PLUMS AND GRAPEVINES.

Headquarters for White Adriatic, White Genoa and San Pedro Figs.

A FINE COLLECTION OF

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A five-pound box of White Adriatic Figs sent by express, prepaid, to any address
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For 1889 is the handsomest and most com-
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inches, contains three colored plates, and
illustrations of all that is new, useful and
rare in Vegetables, Flowers,
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This manual we mail to any address on
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at the same time send free by mail, in addition,
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Splendid Novelties, most of which
are now offered for the first time, and the
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One packet of Autumn King Cabbage, or one
pkt. of Yosemite Mammoth Wax Bean, or one
pkt. Delmonico Musk Melon, or one pkt.
Giant Pansy, or one pkt. Scarlet Triumph Aster (see illustration), or one pkt. Sunflower
"Silver and Gold," or one plant of the climber Blue Dawn Flower, or one plant of the
White Moonflower, or one Bermuda Easter Lily, or one plant of either a Red, Yellow,
White or Pink Bee-blooming Rose—on the distinct understanding, however, that those
ordering will state in what paper they saw this advertisement.

PETER HENDERSON & CO., 35 Cortlandt St.,
NEW YORK.

**ROSES
Fresh SEEDS AND
PLANTS**

HEALTHY and VIGOROUS
Delivered FREE by Mail.

**MAKE A
FLOWER BED
and Plant some VINES**

SEE WHAT LOW PRICES
15 Everblooming ROSES,
fine standard varieties, \$1.
15 Fine CARNATIONS,
including 1 new variety \$1.
15 Large fancy Hybrid
CHRYSANTHEMUMS,
fine Exhibition sorts, \$1.
12 HARDY ROSES, H.P.
Finest sorts, \$1.
10 Extra fine flowering
BEGONIAS, finest standard
plants in cultivation, \$1.
We have the most varied
collection of BEGONIAS in
the country, among them the
curious Whorled Rex which will succeed with everybody.
Illustrated CATALOGUE FREE. It will please you.
No exaggerated descriptions. Exact facts about every
tested variety. Please mention this paper. Address
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A GREAT SACRIFICE!



On account of the death of F. A. BRIGGS, Manager of the Pacific Coast
Branch of the Amesbury (Mass.) Carriage Factory, the whole stock of fine
light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for
sale at less than cost, to settle the estate.
C. CREGO, Administrator.

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A POTATO
PLANTER.**

Absolute Guarantee given to do
PERFECT and RAPID WORK.
Write for illustrated circular. Mention this paper

**BETTER
THAN EVER.
PLANTS CORN
Distributes Fertilizers**
ASPINWALL MFG. CO.
THREE RIVERS, MICHIGAN.

Seeds, Plants, Etc.

TEXAS UMBRELLA TREES,
California Walnuts and Locust Trees,
FOR SALE BY
J. R. SPRINGER,
Woodland, Cal.
P O Box 429.

OLIVE TREES.

One-year-old Picholine, in boxes; very large and fine.
C. W. CRANE,
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PEAR TREES FOR SALE.

3000 Bartlett Pear Trees, two years old, for
sale. Address: H. B. MUSCOTT,
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Established 1853. **J. P. SWEENEY & CO.** (Established 1853.)
Wholesale Seed and General Commission Merchants,
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Wholesale Dealers in Timothy, Red Top, Red and White Clover, Texas and Kentucky Blue Grass, Common, German
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Dried Fruits, Poultry, Butter and Eggs a specialty. Consignments solicited.

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TRUMBULL, REYNOLDS & ALLEN.
GRASS, FIELD, GARDEN & TREE SEEDS,
FERTILIZERS, Etc.
Send for Catalogue. Mailed free.
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SEEDS



Come, Fellow Farmers!

It is the good things and the new things you want.
Here is a Catalogue full of them! Do you want tested
seed, raised from stock selected with extra care,
grown from the best strains, got from the originators?
I am to have mine just such. Do you
want new varieties that are really good, and not
merely novelties? I am to have mine such. Do
you want seed that the dealer himself has faith enough
in to warrant? I warrant mine, as see Catalogue. Do
you want an exceptionally large collection to select from?
Mine is such. Do you want them directly from the grower?
I grow a large portion of mine—few seedsmen grow any! My
Vegetable and Flower Seed Catalogue for 1889 FREE to every-
body. **JAMES J. H. GREGORY, Marblehead, Mass.**

**THE DINGEE & CONARD CO'S
ROSES AND SEEDS**

We offer postpaid at your
own door, the LARGEST
STOCK OF ROSES in
America, all varieties,
sizes and prices, to suit
all wants. **ALL THE FINEST NEW ROSES,** New Hardy FLOWERING PLANTS,
New CLIMBING VINES, New Summer FLOWERING BULBS, and JAPAN LILIES, New
CHRYSANTHEMUMS, GLADIOLUS and TUBEROSES, The Wonderful NEW MOON
FLOWERS, New GRAPES, New and Rare FLOWER and VEGETABLE SEEDS.
Goods sent everywhere by mail or express. Satisfaction Guaranteed. Our NEW GUIDE, 110 pages,
handsomely illustrated, FREE TO ALL who write for it. It will pay you to see it before buying.
THE DINGEE & CONARD CO., Rose Growers and Importers, West Grove, Pa.

SALZERS GIANT FLAT DUTCH



Over 100,000 customers
of 1888 praise my seeds, and say they increased all
yields, yes often doubled them by sowing my Northern
Grown Seeds, giving them on Wheat 60 bu.,
Oats 30, Barley 20, Corn 120, Potatoes 600 bu., etc.
We pay in Prizes \$1750 on Farm Seeds and
\$1,280 on Vegetables for largest yield in
1889. You can win one or more if you want to.
See Catalogue about it. Operate 5,000 acres in
growing seeds. Floor room of seed store over 2
acres, cellar capacity 60,000 bu. Our city has 4
mills, 70 freight trains and 34 express daily, so we
can fill all orders at once. Send for Grain sam-
ple or the for Giant Cabbage and get Fine Catalogue
free. **JOHN A. SALZER, La Crosse, Wis.**

**SEEDS 51st
YEAR**

FRESH AND RELIABLE. BUY NO OTHERS
Seed Store at your door. Send for our illustrated cat-
alogue of everything for the Farm and Garden.
J. M. McCULLOUGH'S SONS,
CINCINNATI, OHIO.

FRENCH PRUNES.

1 year old; fine trees; 500 for \$30 per 100
A. DRAHMS, Sonoma, Cal.

Seeds, Etc., Continued on Page 142.

Irrigation Districts.

Proposed Amendment to the Wright Law.

Two bills amendatory of and supplemental to the Act to provide for the organization and government of irrigation districts, and to provide for the acquisition of water and other property, and for the distribution of water thereby for irrigation purposes, commonly known as the Wright law, approved March 7, 1887, have been introduced in the Assembly by Hon. Vital E. Bangs of Modesto, passed by that house and reported to the Senate.

The first, introduced Jan. 24th, and designated as Assembly Bill No. 335, provides for changing the boundaries of any irrigation district, by excluding therefrom tracts of land which were included therein at or after its organization; "but neither such change of the boundaries of the district, nor such exclusion of land from the district, shall impair or affect its organization, or its rights in or to property, or any of its rights or privileges of whatsoever kind or nature; nor shall it affect, impair, or discharge any contract, obligation, lien, or charge for or upon which it was or might become liable or chargeable, had such change of its boundaries not been made, or had not any land been excluded from the district."

The owner or owners in fee of one or more tracts of land which constitute a portion of an irrigation district, may file with the board of directors of the district a petition praying that such tracts, and any other tracts contiguous thereto, may be excluded and taken from said district. The petition must describe the boundaries of the tracts to which it has reference, and it must be acknowledged in the same manner and form as is required in case of a conveyance of land.

The directors are required to publish notices of the filing of such petition for at least two weeks in the county where their office is situated and in every county within which lies any portion of the territory to be excluded, describing the lands, etc., mentioned in the petition and notifying all persons interested in or opposed to the change sought to present their objections in writing at the office of the board at a specified time—which shall be the regular meeting of the board next after the expiration of the time for the publication of the notice.

After hearing the petition and all objections thereto presented in writing by any person showing cause why the prayer should not be granted, the directors are to proceed in the manner provided for by the following sections:

SEC. 5. The board of directors, if they deem it not for the best interests of the district that the lands mentioned in the petition, or some portion thereof, should be excluded from said district, shall order that said petition be denied. But if they deem it for the best interests of the district that the lands mentioned in the petition, or some portion thereof, be excluded from the district, and if no person interested in the district shows cause in writing why the said lands, or some portion thereof, should not be excluded from the district, or if having shown cause, withdraws the same, and also if there be no outstanding bonds of the district, then the board may order that the lands mentioned in the petition, or some defined portion thereof, be excluded from the district.

SEC. 6. If there be outstanding bonds of the district, then the board may adopt a resolution to the effect that the board deems it to the best interests of the district that the lands mentioned in the petition, or some portion thereof, should be excluded from the district. The resolution shall describe such lands, so that the boundaries thereof can readily be traced. The holders of such outstanding bonds may give their assent in writing to the effect that they severally consent that the board may make an order by which the lands mentioned in the resolution may be excluded from the district. The assent must be acknowledged by the several holders of such bonds in the same manner and form as is required in case of a conveyance of land, and the acknowledgment shall have the same force and effect as evidence as the acknowledgment of such conveyance. The assent shall be filed with the board, and must be recorded in the minutes of the board; and said minutes, or a certified copy thereof, shall be admissible in evidence with the same effect as the said assent; but if such assent be not filed the board shall deny and dismiss said petition.

SEC. 7. If the assent aforesaid of the holders of said bonds be filed and entered of record as aforesaid, and if there be objections presented by any person showing cause as aforesaid, which have not been withdrawn, then the board may order an election to be held in said district to determine whether an order shall be made excluding said land from the district as mentioned in said resolution.

If at such election a majority of all the votes cast shall be against the exclusion from the district of the lands in question, the board shall deny and dismiss the petition, and proceed no further in the matter. But if a majority of such votes be in favor of the exclusion of said lands, the board shall thereupon order that the said lands be excluded from the district.

The remaining sections of the bill prescribe the manner in which details of business, consequent upon the order of exclusion, shall be carried out.

The second measure, introduced Jan. 25th and known as Assembly Bill No. 340, is the counterpart of the former, as it provides for enlarging the boundaries of an irrigation district, so as to include a tract adjacent. Its provisions as to petitions, publication of notices, hearings, denials, resolutions, elections, orders, etc., are similar to those of A. B. No. 335.

Under either of the above bills, an election is to be called only when objections are filed with the board, otherwise the board acts of itself. If it should agree with the objectors, then the petition for inclusion or exclusion of lands will be rejected without submitting the matter to a

vote of the electors of the district. The election is called only when the board of directors are in favor of the petition and objections thereto are filed.

After either of the orders above referred to has been entered in the minutes of the board, and a certified copy has been filed in the County Recorder's office, the district affected shall be and remain an irrigation district as fully to every intent and purpose as it would be had no change been made in its boundaries.

In case of the inclusion or exclusion of any lands within any district by proceedings under the above Acts, the board of directors, at least 30 days prior to the next succeeding general election, shall redivide such district into five divisions, and one director shall thereafter be elected by each division.

Both these bills having passed the Assembly on Monday last, were reported in the Senate Tuesday and substituted for identical measures on the Senate file.

State Horticultural Society.

The monthly meeting of the State Horticultural Society was held at 220 Sutter street Jan. 25th, President W. C. Blackwood of Haywards in the chair.

David Bush and F. J. Fletler of San Francisco, C. W. Reed, Jr., of Sacramento and J. R. McKee of Napa were elected members.

A communication was received from A. Crozier, secretary of the American Pomological Society, inviting the horticultural society to attend the annual meeting, which will be held at Ocala, Fla., Feb. 22 to 25th.

Dr. Gibbons of Alameda spoke about forage plants. He said that he had made several experiments with alfalfa, a Spanish forage plant which is found in all parts of the State. Judging from a crop which he had grown on a small plot, he believed that it would yield fully 25 tons of green weight to the acre.

E. J. Wickson, instructor in agriculture at the State University, read a paper on the "Wild Fruits of California." The paper is an advance copy of a chapter of a book which Mr. Wickson is writing on the fruits of California.

D. B. Wier read a paper, "Native Fruits Are the Best."

At the next meeting the subject for discussion will be "The Marketing of Green and Dried Fruits," and the secretary was instructed to issue an invitation to all interested in the subject, both as producers and dealers, to attend and take part in the discussion.

Distributing the Waters.

We trust that the farmers of this State are becoming more and more awake to the vast importance of settling the water problem on a firm legal basis.

A correspondent at Sacramento wrote last week that no hostility to irrigation measures had, so far, been developed; indeed it seems to be generally recognized by members of the Legislature that the question is of vital moment to the people, and the prevailing sentiment appears to favor any laws that will give the people that of which they are so urgently in need.

The prompt passage by the Assembly of the two bills introduced by Mr. Bangs, an abstract of which we give in this issue, is encouraging, but our Grangers and farmers generally should be calling meetings in all quarters, discussing the measures and stirring up our legislators to still further action.

Fair at San Jose.

We are pleasantly reminded, by the coming of a complimentary ticket, that the Citrus or Winter Fair, of which notice was given some weeks ago, is to open in Horticultural hall, San Jose, next Monday, Feb. 11th, and continue throughout the week. Members of the Committee on Fruits, who have canvassed the various districts of the county, feel assured of a magnificent display. Special exhibits are promised from Mountain View, Los Gatos, Saratoga, Gilroy and Alina; while the fruits from Berryessa, Evergreen, The Willows and other districts adjacent to San Jose will be of unusual merit.

THE AGRICULTURAL APPROPRIATION BILL, as completed Jan. 31st, would make an appropriation of \$1,636,010, as compared with the estimates of \$1,686,160, and the appropriation for the present year of \$1,715,826. The appropriation of \$100,000 made in last year's bill to enable the Commissioner of Agriculture to continue experiments in developing sorghum cane is omitted in the present bill. The regular appropriation of \$100,000 for the purchase and distribution of seeds is made. A provision is inserted requiring the Commissioner of Agriculture to supply these seeds directly to the several State agricultural experimental stations instead of distributing them through Senators and Representatives.

THE STATE BOARD OF SILK CULTURE held a meeting last Saturday, at which Pres. G. W. T. Carter, Mrs. L. Rienzi, R. H. McDonald, Jr., S. A. Sellers and J. J. Rivers were present. The secretary was instructed to give visitors samples of silk and cocoons. The project of issuing a quarterly publication to show the progress made in the silk industry in this State, was talked over. Scholars from the Clement grammar school visited the flature and witnessed the process of making silk, preparatory to writing essays on the subject.

California Products at Chicago.

CHICAGO, Feb. 5.—The first oranges of the season from California were on sale yesterday. Arrivals from Florida are very moderate, but some Messina oranges are coming in, and with those from California, the supply is fair. Floridians still lead and choice fruit rules steady, but common grades of fruit of all kinds rule easy, which is always the case. Quotations are: California, $\frac{1}{2}$ box, \$3@3.50; California Navels, $\frac{1}{2}$ box, \$5@6. Dried fruits—Up to within a few days there has been very fair trade in this line of goods, but buyers seem to have secured fair stocks, and at present quietness again reigns. Some quite large dealers report stocks considerably reduced, and there is no pressure to sell; but at low prices which now prevail the feeling is rather steady. Prices are quotable as follows:

Apricots—Evaporated, bleached, bxs, 13@14c; do, sun-dried, bleached, bxs, 9@12c. Apricots, sun-dried, unbleached, bxs, 7@9c. Peaches—Evaporated, bleached, unpeeled, bxs, 7@8 $\frac{1}{2}$ c; do, sun-dried, bleached, unpeeled, bxs, 6 $\frac{1}{2}$ @8c; do, unbleached, unpeeled, bxs, 4 $\frac{1}{2}$ @6c; do, sun-dried, peeled, bxs, 10@12 $\frac{1}{2}$ c; do, peeled, bxs, 10@10 $\frac{1}{2}$ c; do, evaporated, peeled, bxs, 12@13c. Nectarines—White, evaporated, bleached, bxs, 9@10c; do, sun-dried, bxs, 8@9c; do, red, evaporated, bleached, bxs, 7@8c; do, sun-dried, bleached, bxs, 6 $\frac{1}{2}$ @7 $\frac{1}{2}$ c. Plums—New, pitted, 7 $\frac{1}{2}$ @8c; new, unpitted, 4@7c. Prunes, according to size, in bxs, 5@9c; do, Silver, 10@12c; do, Hungarian, bxs, 3@3 $\frac{1}{2}$ c.

Raisins—Loose Muscatels, new, $\frac{1}{2}$ box, \$1.10@1.50; do, London layers, new, \$1.75@2.25.

Hops—Considerable strength exists in the market for hops. The demand is very fair, especially for choice grades, and the supply, generally speaking, is moderate to rather light. Washington Territory, good to choice, 18@22c; do, red tinted, 15@17c; do, common red, 12@14c; Pacific Coast, fair to prime, 18@20c; do, choice, 20@22c.

Beans—Met with fair sale. They rule steady and the supply on hand is fair. The demand, as a rule, is fair. Choice stock and common lots are slow. California pea beans, \$1.90; do, Lima, 4 $\frac{1}{2}$ c $\frac{1}{2}$ lb.

In advocating the passage of Assemblyman Hall's bill for the formation of a new agricultural district out of those portions of the counties of Santa Cruz and Monterey comprising the Pajaro valley, the *Pajaronian* declares: "Pajaro valley has a genuine fair association, one that gives an annual exhibit of our farm products. It has been run without State aid. It now proposes to fight for a portion of the appropriations given neighboring associations, and which are usually expended for the encouragement of horse-jockeying and the fostering of pool-selling and other forms of gambling."

A LEADING REAL-ESTATE FIRM.—During the last 90 days a lively interest has been taken in real estate in Monterey county. The firm of Lang, Merritt & Dexter at Salinas City occupy a leading position as real-estate brokers, and their list contains fruit, farming, and grazing land. Parties wishing information or an investment in Monterey county will be materially assisted by consulting this enterprising and well-reputed firm.

TO SUBSCRIBERS.—Members of the P. of H. now receiving the regular editions of the *RURAL PRESS* are advised to try our Grange editions instead for awhile. The cost is the same for each edition. We will transfer names from either to the other on receiving a written request therefor.

PARTIES desiring to obtain seed potatoes will do well to read the advertisement of D. B. & M. S. Harrington in another column.

DURING 1888 the steamers on Puget sound carried 355,000 passengers. In 1886 the number was only 73,000.

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To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, to those who pay fully one year in advance of date, if requested the following articles (while this notice continues), at the very greatly reduced figures named at the right:

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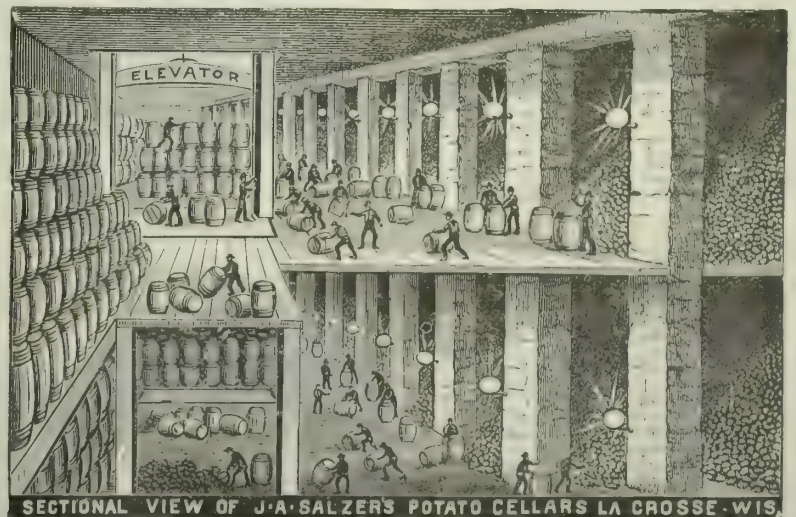
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Every package of butter in competition at the recent Dairymen's Association meeting which took a first prize or a sweepstakes prize was colored by Wells & Richardson Company's butter color. This would seem to be the nature of a very large compliment to a well-known article of local manufacture, which, by the way, has been very much improved lately. We congratulate the manufacturers upon this splendid tribute to the value of the improved butter color.—*Burlington, Vt., Free Press, Jan. 19, 1889.*

SEEDS AND PLANTS.—Frank Ford & Sons of Ravenna, Ohio, have embellished their catalogue of "sound seeds and live plants" for the spring of 1889 with a handsome colored plate of the Eaton grape, which has round black berries, full an inch in diameter, and is said to be very juicy and the Concord's peer in quality.



MAMMOTH SEED-POTATO CELLARS.

The accompanying illustration shows a sectional view of John A. Salzer's mammoth seed-potato cellars at La Crosse, Wis., by far the largest seed-potato cellars in America. They are built of massive rock, with a four-inch air space and veneered with brick. This insures warmth and proper dryness. When we remember that the mercury at times falls below 40° at La Crosse, this extra precaution is necessary. The cellar has a capacity of over 60,000 bushels in bins, and a storage-room of upward of 10,000 barrels. All orders from the South

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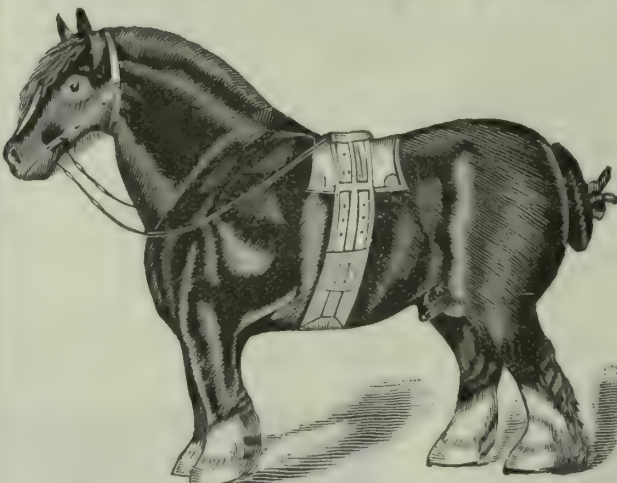
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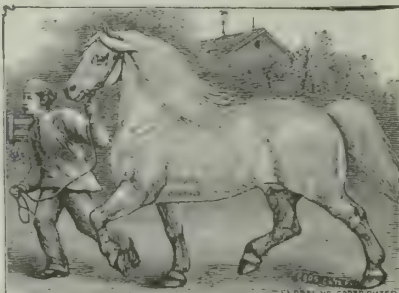
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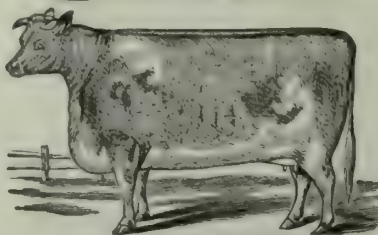
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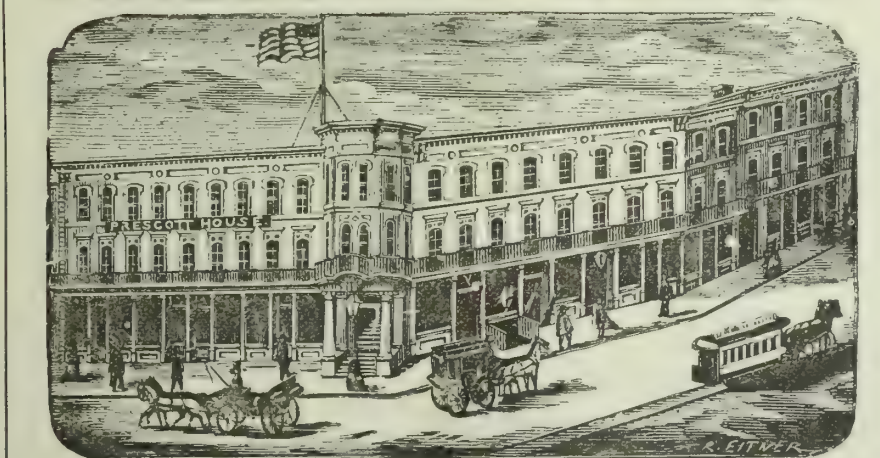
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S. F. MARKET REPORT

Weekly Market Review.

DOMESTIC PRODUCE, ETC..

SAN FRANCISCO, Feb. 6, 1889.

Outside of grain, farm products have ruled weaker the past week under free receipts. Barley has been fairly active at strong prices. Wheat fluctuated considerably, but at advancing prices under good business. The market was influenced by higher prices abroad. The following is to-day's cable-gram:

LIVERPOOL, Feb. 6.—Wheat—Dull. California spot lots, 75 to 75 1/2 off coast, 38s; just shipped, 38s 3d; nearly due, 38s; cargoes off coast and on passage, quiet but steady; Mark Lane wheat, steady; French country markets, dull; weather in England, unsettled.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt:

	Feb.	Mar.	Apr.	May	June	July
Thursday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2
Friday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2
Saturday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2
Monday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2
Tuesday	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2	75 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments:

	O. C.	P. S.	N. D.	Market.
Thursday	37-3d	37-9d	37-9d	Inactive.
Friday	37-3d	37-9d	37-9d	Slow.
Saturday	37-3d	37-9d	37-9d	Slow.
Monday	37-3d	37-9d	37-9d	Former.
Tuesday	37-3d	37-9d	37-9d	Quiet.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York:

Day	Feb.	Mar.	Apr.	May
Thursday	94 1/2	94 1/2	94 1/2	94 1/2
Friday	94 1/2	94 1/2	94 1/2	94 1/2
Saturday	94 1/2	94 1/2	94 1/2	94 1/2
Monday	94 1/2	94 1/2	94 1/2	94 1/2
Tuesday	94 1/2	94 1/2	94 1/2	94 1/2

The closing prices for wheat have been as follows, at Chicago:

Day	Feb.	Mar.	July
Thursday	94 1/2	94 1/2	94 1/2
Friday	94 1/2	94 1/2	94 1/2
Saturday	94 1/2	94 1/2	94 1/2
Monday	94 1/2	94 1/2	94 1/2
Tuesday	94 1/2	94 1/2	94 1/2

NEW YORK, Feb. 6.—Wheat—96 1/2¢ for cash, 96 1/2¢ for Feb., 98 1/2¢ for March, 97 1/2¢ for May and 89 1/2¢ for July. Oats—25¢ for Feb.

The Foreign Grain Review.

LONDON, February 4.—The *Mark Lane Express* in its weekly review of the British grain trade says: English wheat is depressed. Prices show an average decline of 1s. The sales of English wheat the past week were 52,790 quarters at 29s 9d, against 60,744 quarters at 30s 8d during the corresponding week last year. American flour made of 1888 wheat sells at a fair price. Foreign wheat decreased 1s, partly owing to weakness in English wheat and partly to the thaw that occurred at Odessa, enabling freight steamers to get away. Barley is 3d lower. Corn is firm. Linseed declined 6d. At to-day's market foreign wheat was steady; flour was weak; barley and oats firmer.

Cables of February 5 report as follows: French country markets, rather worse. English country markets, steady. Wheat in Paris, steady. Flour in Paris, steady. English and foreign wheat, steady. English and American flour, steady. Weather in England, frosty. One arrival of wheat cargoes off coast, two sales and nine awaiting orders. Wheat and flour on passage to United Kingdom, 2,328,000 qrs; wheat on passage to Continent, 373,000 qrs; corn on passage to United Kingdom, 328,000 qrs; corn on passage to Continent, 176,000 qrs. Weekly imports to United Kingdom—flour, 172,000 bbls; wheat, 330,000 qrs; corn, 150,000 qrs.

Eastern Wool Market.

NEW YORK, Feb. 1.—Wool is quiet but steady in most American markets. The London sales have opened in a way to encourage holders on this side of the water. Fair competition is reported, with a liberal attendance of domestic and foreign buyers, spirited bidding and prices on a level with those at the close of the last series. This state of things is believed to assure the continuance of comparatively firm prices in this country until the appearance of the new clip. There is really no change in the situation; holders are confident and are disinclined to grant concessions, while buyers are not investing beyond their near-by requirements. No great amount of really choice wool is offered.

At Philadelphia the wool trade is generally dull. The market for fleeces shows less firmness. Holders have modified their extreme views in most cases, and in exceptional cases have made slight concessions on fine wools, but there is a general unwillingness to shade prices to the extent that would be necessary to induce buyers to operate largely in advance of wants. Manufacturers would probably buy pretty freely at concessions of 1¢ to 2¢ from recent quotations, but dealers' stocks are not large, and there is no pressure to realize at this cost. Territory wools are steady and in fair demand.

BOSTON, Feb. 1.—There has been more active demand for wool this week, and transactions of all kinds amount to 3,651,300 lbs. A large part of these sales has been of foreign carpet wools, but the amount of domestic wool has also been comparatively large. There is no material change to notice in prices, which are held firm, and the confidence of dealers in the value of their wool is unimpaired.

Miscellaneous.

NEW YORK, Feb. 3.—Great Britain is still independent of our wheat so far as this market is concerned and the decline does not produce more than a light continental call.

Hops—Crisper prices prevail. State, 22c. There is good local demand. Exports for the week, 1093 bales.

Mustard seed is nominal at 3 1/2¢ to 3 3/4¢; yellow, 4 1/2¢.

California oranges here do not find a ready mar-

ket. With the cost of shipment, Pacifics can hardly compete with even an ordinarily abundant Florida crop.

Some lots of Easter Beurre pears have held up handsomely.

Limes are scarce and firm at \$2.90. Strained honey is in demand, at 7 1/2¢ to 8¢ wholesale. Comb is now held at 14¢. There is an irregular feeling in dried fruits.

Local Markets.

The following tables give the highest and lowest prices paid on Call during the past week:

	S. S.	B. S.	B. '89.	"S. '89.	"S. '89.
Thursday	142 1/2	142 1/2	140 1/2	138 1/2	135 1/2
Friday	141 1/2	141 1/2	140 1/2	138 1/2	135 1/2
Saturday	141 1/2	141 1/2	140 1/2	138 1/2	135 1/2
Monday	141 1/2	141 1/2	140 1/2	138 1/2	135 1/2
Tuesday	141 1/2	141 1/2	140 1/2	138 1/2	135 1/2

—New. 10d.

BARLEY.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday	84 1/2	86 1/2	95 1/2
Friday	84 1/2	86 1/2	95 1/2
Saturday	84 1/2	86 1/2	95 1/2
Monday	84 1/2	86 1/2	95 1/2
Tuesday	84 1/2	86 1/2	95 1/2

BAGS—The market is weak for spot, and even for future delivery concessions are said to be obtainable. Calcutta on spot is quoted at 7 1/2¢, for June-July delivery 7 1/2¢ to 7 3/4¢.

BARLEY—The market for sample parcels has been strengthening the past week. On Call, options have held strong with light trading reported. At the low prices ruling there does not appear to be much disposition to short. The reported sales made on to-day's Call are as follows:

Morning Session: Buyer season—100 tons, 86¢; 100, 85 1/2¢; 100, 85 1/2¢. Afternoon Session: Buyer season—100 tons, 86 1/2¢; 100, 86 1/2¢.

BUTTER—The market has been gradually settling throughout the week, with a weak tone at the close. Heavy receipts and a strong selling pressure are the main factors in promoting the low prices.

CHEESE—Prices have shaded off under free receipts and only a fair call. Buyers do not appear disposed to anticipate their wants.

EGGS—A more demoralized market has seldom occurred. Although the consumption is increased by low prices, yet the heavy receipts are against values recovering.

FLOUR—The market is quiet and weak.

WHEAT—The market the past week for sample parcels gradually strengthened under foreign advices. Trading at the advance was light, owing to holders advanced views. On Call, trading was very active with sharp and rapid fluctuations. The following are the reported sales made on to-day's Call:

Morning Session: Buyer 1889—500 tons, \$1.48; 700, \$1.47 1/2; 1000, \$1.47 1/2. Buyer season—500 tons, \$1.44 1/2; 1000, \$1.44 1/2; 200, \$1.44 1/2. Afternoon Session: Buyer 1889—1400 tons, \$1.47 1/2; 300, \$1.47 1/2. Buyer season—400 tons, \$1.44 1/2.

[COMMUNICATED.]

Market Information.

Cereals.

From the *Mark Lane Express* of Jan. 14th the following review of the English foreign wheat trade is taken: The yield of the British wheat crop of 1888 being on the most favorable estimate 28 bushels only, against 32 in 1887, it is somewhat surprising to find that purchases of foreign wheat in 1888 were only about three per cent increased in 1887. It has, however, to be remembered that up to June the good crop of 1887 was keeping the agricultural exchanges unusually well supplied with English corn. Another matter of surprise is the complete absorption of the big consignments of wheat from Russia. So far from overloading the British ports, they have been so fully called for that it is evident their timely arrival has alone stood between the United Kingdom and a period of scarcity. The Russian shipments have, indeed, been remarkable. In 1886 they were 3,710,000 cwt. In 1887 they rose to 5,522,773 cwt. The expectations of 1888 would normally have stood at about this figure, but 21,368,793 cwt were actually received. Nor was this the full extent of the Russian export trade, for the large exports of Polish wheat received through the Baltic ports of Germany must, politically and geographically, be credited to the Russian Empire, though it is through them that Germany appears in the Government tables as sending us 1,318,053 cwt of wheat in 1886, 1,551,738 cwt in 1887, and 3,264,815 cwt in 1888. A third country, which cannot be separated altogether from Russia, is Roumania, and here, again, we find a great increase in the wheat exports, which in 1886 were only 290,248 cwt, and in 1887, 585,353 cwt, but which in 1888 rose to 1,419,079. Putting these three regions together under the heading of Eastern Europe, we shall have for 1888 exports: Russia, 21,368,793 cwt; Poland, 3,264,815 cwt; Roumania, 1,419,079 cwt; total Eastern Europe, 26,052,687 cwt. This formidable quantity of 6,000,000 qrs has been launched upon British markets, wherein of late years a third of the quantity had alone been expected. That these large supplies did not cause a profound depression in wheat values is to be found in the strikingly diminished exports of the United States. In 1886 24,500,000 cwt were shipped, and in 1887 over 30,000,000 cwt. In 1888 only 14,647,195 cwt were shipped, a falling off of over 3,500,000 qrs. Canada at the same time decreased her shipments from 4,000,000 cwt to 1,000,000, while Indian trade, despite a good harvest in the spring of 1888, showed a curious want of vigor. 1886, 11,028,665 cwt shipped; 1887, 8,509,095 cwt; 1888, 8,188,608 cwt. The growth of trade on the eastern seaboard of South America is marked, but Chili ships within well-defined limits every year. Anything below 1,000,000 or above 2,000,000 cwt is quite exceptional. From Australia, the shipments of wheat in 1888 were larger than in 1886 and 1887 together, but in 1889 little or no Australian wheat is likely to be shipped. The total wheat imports of the past three years have been: 1886, 47,404,344 cwt; 1887, 55,784,685 cwt; 1888, 57,224,934 cwt. Of flour, our imports—to the great relief of

English millers—have ceased to grow. The figures of the past three years witness to this: 1886, 14,730,232 cwt; 1887, 18,056,545 cwt; 1888, 16,012,773 cwt.

The local wheat market has been quite strong throughout the past week, due chiefly to the dry weather, although the market is influenced to some extent by foreign advices. The demand from exporters, millers, and also from Call Board operators has been and continues quite active, causing the stronger tone to rule. Sales the past week are reported to aggregate more than in any one week since the new year set in. Holders are not disposed to let go even at the advanced quotations. Operators in this city think that with a good soaking rain soon, sellers will be in the market, and for that reason they are now only disposed to purchase for immediate requirements, preferring to chance the future rather than to anticipate their wants at the advance now current. There is no denying but the "bull" feeling is gaining in this city, for there is less disposition to short the market on Call for futures.

Advices from the interior are confirmatory of a growing uneasiness, owing to the absence of rains. If the winter of 1887-88 had been a wet winter, the light rainfall so far this season would not have had any effect, for the ground would have had sufficient moisture to withstand a light rainfall, but the winter of 1887-88, as was also the winter of 1886-87, being not quite an average, the ground this year is poorly prepared to withstand the bad effect of a light fall of rain. Several sections in this State already feel the absence of rain, and unless it visits these particular locations soon, there can be no doubt but many fields of grain, heretofore promising good crops, will be entirely ruined.

Barley, as indicated last week, has ruled strong, with a slightly higher range of quotations reported for all grades, with a strong tone at the close. The particular influence on the market is several weeks of no rainfall, when showers, if nothing more, would do incalculable good in sections where seeding has been done. Large operators and dealers do not anticipate their wants to any great extent. Although the feeling with them is more bullish, yet they are disposed to await the immediate future as regards the weather before buying largely. Holders have either withdrawn from the market or are asking an advance.

The large stock here and continued free receipts keep oats in buyers' favor, although the undertone appears to be gaining strength.

Corn is without essential change. Any improvement in prices is followed by freer receipts which let prices off again. This action of the market makes buyers offish.

In rye and buckwheat there is nothing new to report; the demand is slow.

Fruit.

Choice apples are getting scarce, causing a higher range of values to be paid. Off apples are still slow, but owing to the scarcity of choice they have stiffened slightly.

Dried fruits are still in the dumps, and very hard to move. There is considerable in stock, and, as buyers are not in the market, to sell, a lower range of values must be accepted than is quoted. This makes all quotations altogether nominal and entirely unreliable.

Choice London layers and loose Muscatel raisins are getting scarce, and in consequence command full prices; but the poorer grades are hard to place; even low prices do not tempt buyers. Loose raisins in bags have ready sale at from 4 to 4 1/2¢ a pound.

Oranges are moving more freely, with choice, good-conditioned given the preference. Oregon, Washington Territory and British Columbia are taking more, probably owing to the lessened supply of apples and also to milder weather. There are still large quantities of poor oranges on the market, for which, to place, almost nothing has to be accepted. The heavy supplies of Florida put on the Eastern markets are against our oranges being marketed there at good prices, although fair prices are reported to be obtainable.

California lemons and limes are without essential change. The demand appears to be improving. Mexican limes are still scarce.

Live-Stock.

The market for bullocks is still depressed—the supply being in excess of the demand. The quality averages better than at this time last year. The dry weather is against the market, owing to many cattle-men preferring to market now at low prices than to change feed. Mutton sheep are weaker—there is more disposition to let go. The price depends to some extent on the length of the wool; those just sheared or having short wool fetch less money, all else bring equal. Lambs and calves are still wanted. Hogs continue scarce. Those suitable for the block running from 150 to 225 lbs fetch the most money. Good dairy cows are still inquired for. In horses there is nothing new to report. Matched teams fetch from \$700 to \$1200 a span, the price being regulated by color, carriage, etc. Medium to large work horses find ready buyers, but small move slowly. General utility horses are inquired for, as are single-footers.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, grain fed, 6 1/2¢ to 6 3/4¢; dressed, 9¢ to 9 1/2¢; soft, 5 1/2¢ to 5 3/4¢; dressed, 8 1/2¢ to 8 3/4¢. Stock hogs, 4¢ to 5¢.

BEEF—Stall fed, 7¢ to 8¢; grass fed, extra 6 1/2¢ to 6 3/4¢; first quality, 6¢ to 6 1/2¢; second quality 4 1/2¢ to 5 1/2¢; third quality, 3 1/2¢ to 4 1/2¢.

VEAL—Small, 8¢ to 9¢; large, 7¢ to 8 1/2¢.

MUTTON—Wethers, 6 1/2¢ to 7 1/2¢; ewes, 5 1/2¢ to 6 1/2¢; lamb, spring, 10¢ to 15¢.

Vegetables.

There is a freer movement in cabbages, but owing to liberal supplies prices do not appreciate. Whitland & Frederickson received yesterday the first consignment of their this season's colossal asparagus from Boulden island. This asparagus fetches very high prices, owing to its superior qualities. It is grown in the same way it is grown in the "old country."

The southern part of the State is increasing its supply of fresh vegetables, causing some shading in prices. With the weather in the bay counties moderating, trucksters are encouraged in expecting to be

able to market garden truck at an earlier date than in 1888. As far as the writer is able to learn, there has been more attention given to gardening this season than ever before, and in consequence when receipts set in heavily low ranges of values are looked for in nearly all lines.

Heavy receipts of potatoes continue in order. They come chiefly from Oregon, causing buyers to hesitate except at low prices. Many consignees to save expenses cleaned up the wharf at a slight concession. The market for choice good keepers has a steady, firm tone at the close, but defective parcels are slow and hard to place. New potatoes are coming in more freely, but the quality is still irregular.

Onions under free supplies weakened some the past week. The demand is chiefly for well-selected and good keepers.

In root vegetables, trading is still only fair.

Feedstuff.

Choice grades of hay are in light supply, causing an advance to be bid. Even at the advance, holders are offish, owing to continued dry weather. Coarser and poorer hay are in fair supply, but buyers do not take kindly to these grades except at low prices. The consumption, it is reported, is increasing.

The market for ground feed is strengthening, under a slight improvement in the demand and better prices for grain.

Miscellaneous.

Wool continues dull, owing to limited stocks and sellers' views being above buyers. The market abroad is very strong, above the New York parity, which may keep ours up, although Eastern manufacturers are reported to be combined to fight against high range of values.

In hops the market continues lifeless. The supply on this coast is very light.

The only strength shown the past week in poultry was in fryers, broilers and young roasters. Receipts of both live and dressed overland continue in order. Turkeys are weak.

Extracted honey is in request for European account; but comb is still heavy. Beeswax is moving off more freely.

Several vessels were taken the past week for wheat loading. The rates paid were slightly lower than the last reported charter.

Eastern advices report a freer movement in beans, but as yet our market is reported to be heavy.

Nuts are slow, necessitating some concessions to place consignments.

From the *Commercial News* of Feb. 6th, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port	212,901	209,332
On the way to neighboring ports	38,736	77,063
In port, disengaged	34,711	76,819
In port, engaged for wheat	28,649	41,306
Totals	314,997	404,520

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to Feb. 6th, the following are the exports from this port:

	1889.	1888.
Wheat, cts.	9,133,684	5,655,301
Flour, bbls.	440,612	455,360
Barley, cts.	1,175,709	423,959

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

Apples, bx, com	75 @	1 00	do Rwtwater, ..	@	—
do "Choice, ..	1 25 @	2 00	do Rose Peru, ..	@	—
do E's'tn, bbl	4 00 @	4 50	do E. Hamb'g, ..	@	—
Apricots, bx, ..	@	—	do Muscats, ..	@	—
do Royals, lb, ..	@	—	do M. Java, ..	@	—
Bananas, bunch	1 50 @	2 75	do Tokaya, ..	@	—
Blackberries, ch	@	—	do Cornish, ..	@	—
Cherries, wh, bx	@	—	do Isabella, ..	@	—
do black, bx, ..	@	—	do Zinfandel, tou,	@	—
do Royal Ann	@	—	do Mission, ..	@	—
Craneberries, ..	7 50 @	10 00	Nectarines, bx, ..	@	—
Currants, ch, ..	@	—	do Walnuts, 100,	@	—
Gooseberries, ..	@	—	do Canteloupes, cr,	@	—
Limes, Mex, ..	14 00 @	15 00	VEGETABLES.		
do Cal, ..	75 @	1 00	Asparagus, ..	@	—
Lemons, Cal, bx	1 50 @	2 50	do ext a choice, ..	@	—
do Sicily, box, ..	4 50 @	5 50	Okra, dry, lb, ..	15 @	25
Oranges, Comb, ..	1 00 @	1 75	do Green, bx, ..	@	—
do Choice, ..	1 75 @	2 25	Parsnips, chl, ..	1 00 @	1 25
do Navela	choice, ..	4 00 @	Peppers, dry, lb,	8 @	10
choice, ..	4 00 @	5 00	do green, bx, ..	3 @	6
do good do, ..	3 00 @	3 75	Squash, Sum-	@	—
do Com, ..	2 00 @	2 50	mer, lb, ..	@	—
Persimmons, lb,	@	—	do M'w-fat in, ..	8 00 @	12 00
Quinces, lb, ..	@	—	do String beans, lb,	25 @	30
Peaches, bx com,	@	—	do Turnips, chl, ..	50 @	—
do Ex choice, bx	@	—	do Beets, sk, ..	50 @	—
Hale's Early, bx,	@	—	do Cabbage, 100 lbs	3 1/2 @	50
Pineapples, doz,	4 00 @	5 00	do Carrots, sk, ..	25 @	30
Raspberries, ch,	@	—	do Green Corn, cr,	@	—
Strawberries, ch,	@	—	do Green Peas, lb,	10 @	12 1/2
Pears, lb, ..	@	—	do Sweet Peas, lb,	@	—
do Choice, ..	@	—	do Mushrooms, D.,	@	—
Plums, lb, ..	@	—	do Rhubarb, lb, ..	@	—
Prunes, French,	@	—	do Cucumbers, doz	1 50 @	2 00
Pigs, black, bx,	@	—	do Garlic, sk, ..	5 @	7 50
do white, bx, ..	@	—	do Tomatoes, rt, bx	1 00 @	1 50
Grapes, per box,	@	—	do Egg Plant, lb, ..	20 @	25

Dried Fruits, Etc.

The quotations given below are for average prices paid. Choice to extra choice fetch an advance on the highest quotations, while poor sell slightly below the lowest quotations.

Prices named for sun-dried are for fruit in sacks. Add		1889.	1888.
for 50-lb. boxes 3¢ per lb., and for 25-lb boxes 3¢ to 1¢ per lb.			
Apples, sun-dried, quarters, common.....		33	34
"	" prime.....	33	42
"	" choice.....	41	42
"	" sliced, common.....	34	42
"	" prime.....	46	42
"	" choice.....	46	42
"	" Evap, bleached, ring 50-lb boxes.....	6	6
A	ricots, sun-dried, unbleached, common.....	51	6
"	" prime.....	6	6
"	" choice.....	7	8
"	" bleached, prime.....	11	14
"	" choice.....	12	13
"	" fancy.....	131	15
"	" Evap, choice, in boxes.....	16	17
"	" fancy.....	4	4
Figs, sun-dried, black.....		4	11
"	" white.....	-	-
"	" washed.....	-	-
"	" fancy.....	-	-
"	" pressed.....	4	5
"	" unpressed.....	2	4
Grapes, sun-dried, seedless.....		2	4
"	" stemmed.....	2	4
"	" unstemmed.....	5	7
Nectarines, sun-dried.....		5	7
"	" evaporated, in boxes.....	7	11
Peaches, sun-dried, unpeeled, common.....		4	4
"	" prime.....	5	6
"	" choice.....	6	6
"	" fancy.....	10	11
"	" choice.....	10	18
"	" evaporated.....	13	4
"	" fancy.....	8	8
"	" sun-dried, peeled, prime.....	9	-
"	" choice.....	9	-
"	" fancy.....	10	-

Seeds, Plants, Etc.

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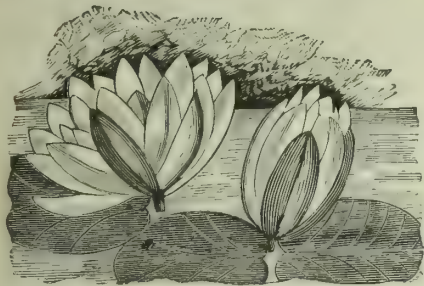
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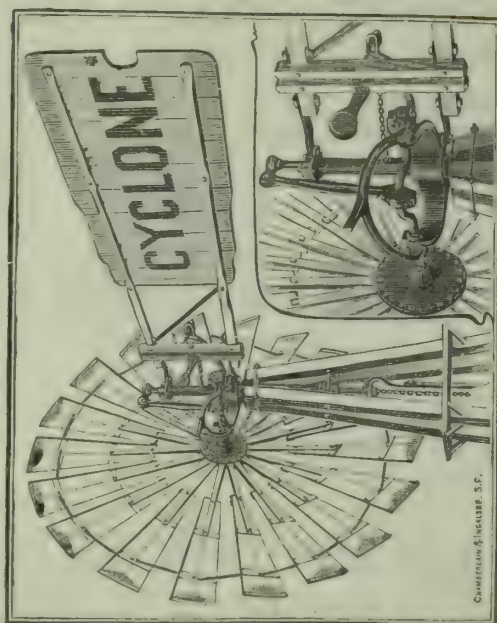
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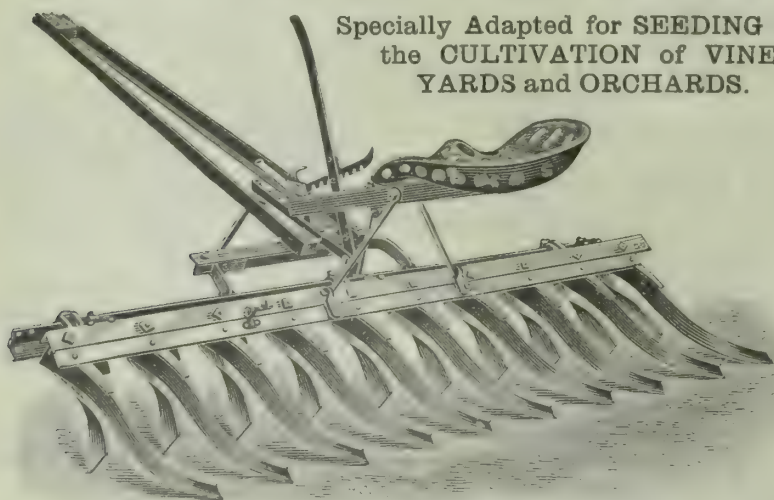
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All Genuine bear TRADE MARK,

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Which, when worn may be turned end for end, thus giving double the amount of wear.

WORKS THE ENTIRE SURFACE OF THE GROUND.

No Other Harrow Combines these Points.

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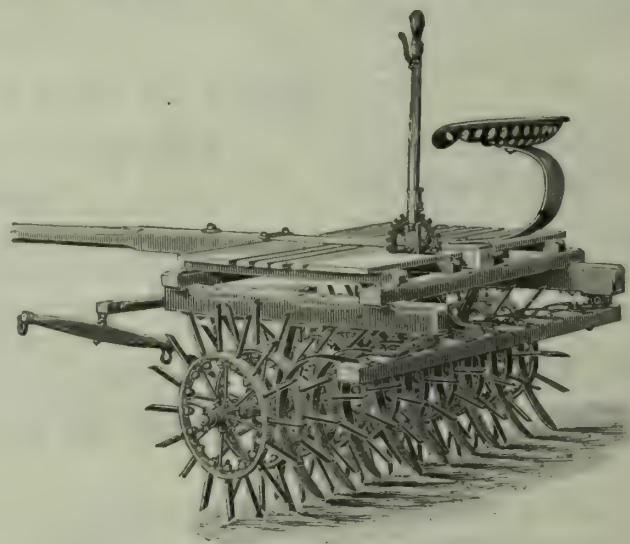
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THE LUBIN PULVERIZER saves much time in preparing the soil as well as the expense of teams. But the great consideration is, that it WILL DO THE WORK WHICH NO OTHER MACHINE ON THE MARKET WILL DO, and all must admit that with all crops very much depends upon the preparation of the soil to receive the seed, vines, trees, etc., as the case may be.

These machines are made in the three following sizes:

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8 feet machines for 4 to 6 horses	125 00

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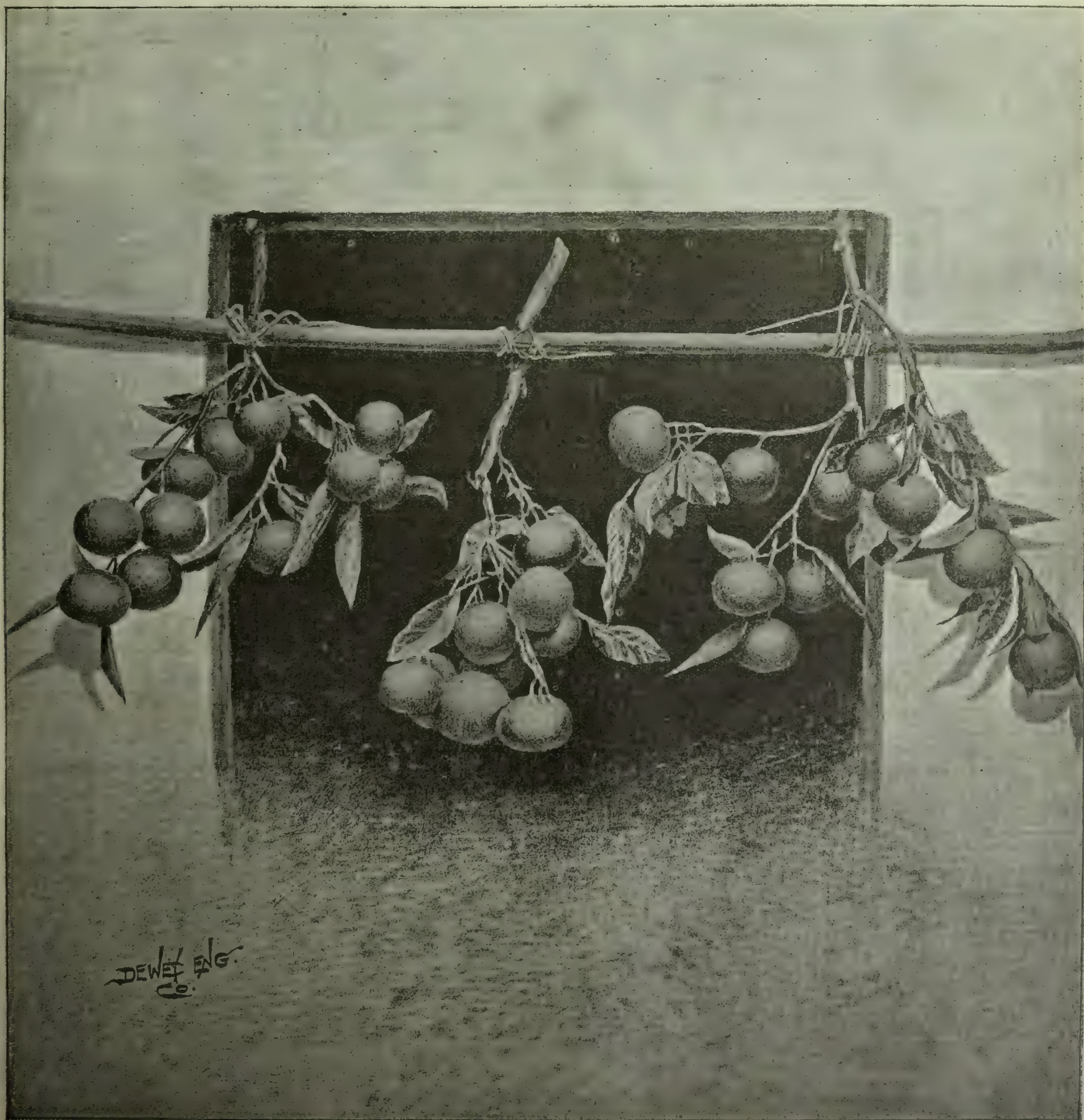


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Vol. XXXVII.—No. 7.

SAN FRANCISCO, SATURDAY, FEBRUARY 16, 1889.

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SINGLE COPIES, 10 CTS.



THE SATSUMA OR OONSHIU ORANGE—DRAWN FROM PHOTOGRAPHS TAKEN IN JAPAN.—See page 152.

FORESTRY.

The Acorn and the Oak.

[Read before the California Academy of Sciences, Feb. 4, 1889, by THEODORE H. HITTELL.]

I hold in my hand an acorn. It is the nut of that species of the oak which is familiar to everybody throughout California, and commonly called the Californian White Oak. To science it is known sometimes as *Quercus Hindsii*, sometimes as *Quercus Longiglana*, and sometimes, and most generally, as *Quercus Lobata*.

This acorn, as will be perceived, is elongated, conical and rather sharply pointed. It is about an inch and a half long and half an inch in its thickest transverse diameter. Such seems to be the usual size and shape of the nut; though in some cases, owing to peculiar conditions, it is found as much as two and a quarter inches in length, and a little thicker, or a little thinner, than half an inch crosswise, as it may happen.

In solid measurement, it may be estimated, with sufficient precision for present purposes, to be equal to two cubes of half an inch each—in other words, to one-quarter of a cubic square inch.

The oak which produces it is common throughout nearly the whole State of California, on the plains and in the foothills, and forms one of the most attractive features in the landscapes of our beautiful valleys. It is a majestic tree in appearance, sometimes with a trunk as much as twenty feet in circumference, a height for the topmost branches of a hundred feet, and a spread of limbs on each side of sixty feet.

In some cases under extremely favorable circumstances, the outer branches hang down with an almost uniform size of ten, twenty, thirty or more feet, the lower ones sometimes reaching the ground. Trees with such depending branches frequently receive in popular phrase the name of hanging or weeping oaks; but they do not essentially differ from the other white-oaks of the State.

In all, there appears to be a tendency in the ends of the long branches to depend; and in the cases referred to this tendency is so greatly developed that the small outer limbs seem to hang like leafy vines, and to sway backward and forward in graceful sweeps with every breath of the summer zephyrus.

Taking one of the best specimens of this magnificent tree, and calculating the solid contents of its wood and bark, and it will be found to contain about eighteen cords, or, in rough numbers, about four million (4,000,000) cubic inches. This makes a mass sixteen million (16,000,000) times larger than the acorn. There can be no doubt that every oak tree, or nearly every tree, that is found in the State grew from an acorn; but, on the supposition that some trees have grown up from the roots of other trees produced from acorns, then the above-mentioned comparatively immense mass of wood and bark, considered as getting its start from a single acorn, must be prodigiously increased.

If the acorn be opened by cutting through the hard outer shell and examined, it will be found to consist of two equal or nearly equal halves, between which at the pointed end is a body, looking something like a very small, smooth, whitish-colored worm, usually called the germ. It is this germ that grows when the acorn is placed under the proper conditions of heat and moisture. The other parts, the two halves before mentioned, are merely the food stored up for the support of the germ in its earliest stages of growth, and the hard outer shell is merely the armor, which protects the germ and its store of infant food until such time as it may find proper conditions of heat and moisture for its growth. Such being the case, it is evident that the size of the great tree, before spoken of as containing a mass sixteen million times larger than the acorn, must, if compared with the size of the little germ, be increased many thousands of times. And again, if the germ be microscopically examined it will be found that its life-bearing part, the part which grows or originates growth, is a mere cell, so small as to be invisible to the naked eye. If an attempt should be made to compare the size of the full-grown tree with the size of this cell, from which it starts when it commences its growth, the calculation would lead to almost endless files of figures like the black-board filling quantities that are used in astronomical determinations.

It was at one time a question whether the acorn originally came from the oak or the oak from the acorn; in other words, which was first created. According to the first chapter of Genesis, "the earth brought forth grass, and herb-yielding seed after his kind, and the tree yielding fruit, whose seed was in itself, after his kind." It is difficult to understand exactly what was meant by this account of creation. Until comparatively recent times, the general understanding seems to have been that the tree full grown, with its fruit and seed fully ripened, was at once produced by creative act. But the statement that the earth "brought forth" the grass and the herb and the tree yielding fruit, does not affirm that it brought them forth in the beginning in any different manner from that in which it brings them forth now.

How is the oak brought forth now? Unless the acorn is subjected to the proper conditions of heat and moisture, it remains an acorn.

It is difficult, perhaps impossible, to say how long it could be kept an acorn capable of germinating. Doubtless a very long time. It

is said that some of the wheat buried in the pyramids of Egypt three thousand years ago, will still germinate and grow. If this statement be correct, there is no good reason why an acorn, capable of germinating, might not be kept for nearly as lengthy a period. As long as it can be and is so kept, it is obvious that it contains within itself the principle of life. It is in all essential respects a living thing, though not in the sense in which the term "living" is ordinarily understood. It has no movement and no growth or change of substance, any more than so much other dead or inert matter. But for all this, it still lives, is still a living thing, or, if the expression be preferred, a living being. When such an acorn is subjected to the proper conditions of heat and moisture, the little germ begins to move and expand. The principle of life within it, which has hitherto remained dormant, becomes active. The process consists in the first place of an appropriation by the germ of the matter which is stored up in the acorn itself. Very soon the germ, as it moves and expands, bursts the shell of the acorn; and while one end springs upward toward the light and air, the other end sinks downward into the ground. In a comparatively short time all the food-matter, which is stored up in the acorn, is appropriated. By this time, however, the plant has begun to draw the food necessary to its growth from the air by means of its leaves and stems, and from the ground by means of its roots; and it goes on thus drawing and appropriating food from the air and the ground until in the course of time, by continued appropriations and accessions, it becomes the magnificent tree which so often excites the admiration of the traveler in our scenes of quiet sylvan beauty.

The fundamental principle in the growth of the plant, after it has taken its start, is the appropriation and incorporation into its own substance of various inorganic substances, which it finds distributed at large in the air and earth. The chief of these substances, or, in other words, the main food of the plant, is carbon. This carbon is eliminated through chemical processes from the carbonic acid contained in the atmosphere by means of the leaves and stems, all and every square inch of which is more or less exclusively devoted to this purpose. Such being the case, it is obvious that all the outside of a plant is, so to speak, its stomach, or, in other words, the organ or series of organs by which it assimilates its food. In this respect it, of course, differs from an animal, the fundamental idea of whose organization is an inside sack or stomach, comparatively small in size and being the only part of the animal body adapted to the reception and assimilation of food. Broadly stated, therefore, one of the great differences between the animal and the plant, in addition to those more obvious characteristics which distinguish the separate kingdoms of nature to which they respectively belong, is that while the animal has a stomach resembling a sack with the food on its inside, the plant has a stomach like a sack turned inside out with its food on the outside.

Another of the great differences of the same general character between the animal and the plant, and arising chiefly from the before-mentioned differences of their organs of nutrition, is that while the food of the animal is mostly either in a solid or fluid form and consists almost exclusively of organic matter, the food of the plant, with the exception of some comparatively small quantities of water and earthy matter taken up by the roots, is just as exclusively of inorganic matter and just as entirely of aeriform or gaseous nature. Whatever and however important a part the water and earthy matter extracted by the roots from the ground may play in the growth and development of the plant, there can be no question that the main, and, as before stated, almost exclusive, source of its food, is the carbonic acid gas of the atmosphere. This is produced and thrown out into the air by combustion of various kinds, and not least by the combustion upon which animal life depends, and is wafted and distributed over the earth by the winds. Thus the currents of the air are the food-carriers of the forests and fields as the currents of the sea are the food-carriers of the continent-forming shell banks and coral reefs.

In the days of Job—who, by the way, was one of the first and best of scientific observers—it was supposed that wind alone as a food-supplier could afford but a luteal entertainment.

It will be recollected that, as an illustration of the very some of vanity and emptiness, the patriarch was substantially asked whether he could fill his belly with the east wind. The answer, had there been a direct one, would probably have been, No. But on the other hand Job might just as well and just as truly have answered that the grasses and the herbs and the trees, that yielded him and his flocks food, filled their bellies with the east wind and found it very solid and substantial pabulum.

To consider for a moment how the southeast trades suck up the waters of the South Pacific; how they carry them over one-half the globe and pour them with open-handed liberality upon our Californian orchards and fields, opening their pores and enabling them to transform and assimilate the substances contained in the air into fruit and grain, and how they thus yearly crowd our markets and pack our warehouses and load our ships, we may well say: "Perhaps not directly, but indirectly, Yes; we are all filling our bellies with the east wind."

The facts that the atmosphere is the food-magazine and that the winds are the food-

carriers of the vegetable kingdom, and the fact that the food of plants is not only inorganic, but gaseous in its nature, lead naturally to the question, what change takes place when the food contained in the atmosphere is converted into the substance of the plant? or, to come back to our special subject of investigation, how is the great oak produced out of the little acorn? As the process of growth goes on from the first movement of the germ, there is plainly a continual accession of carbon absorbed by the leaves from the air and transformed from inorganic into organic matter, or, if the expression be preferred, from dead matter into live matter. What quality is communicated to the carbon, that is incorporated into the growing oak, which was not contained in the carbon that was circulating over land and sea on the wings of the wind?

If this quality be life, and if this life be something which was not inherent in the inorganic matter, then it follows that every particle of living matter contains something which did not exist in it before, and which could not exist unless it were newly created. If this thing called life is then a newly created thing, it must be created with every change of matter from the dead inorganic state to the living organic state. Such a supposition would of course necessitate the assumption not only of an infinite number of little creations going on at the same time, but also of an infinite series of such little creations succeeding one another as long as living beings should grow and should continue to grow. Every leaf and every infinitesimal cell of every leaf of the oak is a laboratory where this change is going on; and the whole oak, as a living integer, is but an aggregation of an infinity of these little changes, each one of which, separately, is so small as to be invisible.

In contemplating the growth of the oak from the acorn, therefore, and comparing the great mass of living matter contained in the eighteen cords of which the full-grown tree consists with the microscopic germ from which it originates, we are obliged—either to consider each increment of growth as a new creation caused by a separate act of creative power, or to attribute it merely to a new arrangement of matter arising necessarily from the inherent nature of the matter entering into the new growth as subjected to the influences surrounding it. When a loadstone is brought close to iron filings, the latter move and arrange themselves in definite lines. There are in this case movements, and movements in an invariable direction, in accordance with the position of the magnet and the inherent nature of the particles of iron. But the movements of these particles are not regarded as out of the natural order of things or involving the exercise of any extraordinary or unusual powers. Again, when a solution of salt reaches a certain density, a certain number of the salt molecules shoot out in invariably definite directions and form those magnificent aggregations called crystals. Here again there are movements and movements in an invariable direction inherent in the nature and constitution of the solution itself. The formation of the crystal seems in one sense to be the creation of a new thing; but chemistry teaches us that there is nothing in the crystal that was not in the solution, and that the only change which has taken place is merely a change in the position of the molecules of the salt, they being in the one case held suspended in the solution and in the other case aggregated according to definite laws of polarity in the solidified mass. Wonderful as the formation of the crystal is, the powers which produce it are inherent in the nature of the substance or substances which build it up. But no one regards these powers as extraordinary. On the contrary, they are supposed to be as natural as the law of gravitation or any other of the conditions under which all matter exists.

If, now, we contemplate a growing oak leaf, and carefully examine the composition of the new structure, we will find that it has merely added to its size by increments of new matter taken from the surrounding medium. It has managed like the loadstone to draw from the atmosphere the particles of matter suitable to its growth, and, like the crystal, it has arranged them in definite positions. The formation of the leaf is a more complicated process than the formation of the crystal, but there does not seem to be any good reason, merely on account of its greater complication, to suppose that the one is any less a natural process or any more requires the exercise of creative power than the other.

There is nothing in the completed leaf that was not in the material environment, any more than there is anything in the crystal that was not in the solution.

In each case, matter of certain kinds was aggregated under certain conditions; and, so aggregated, the live leaf was the natural result in the one case just as the definitely angled crystal was in the other.

Mention has already been made of the acorn as capable of existing for an indefinite period simply as an acorn, with the principle of life contained within it in a dormant state. If such an acorn were never to sprout, it could not in the ordinary sense be said ever to live as an independent being. But if at any time, be the period a year or a century or thirty centuries, it should be subjected to the proper natural conditions of heat and moisture, it would immediately assume the movements and qualities which are termed life.

If what is thus called life is the natural result, and nothing more than the natural result, of the influence of the heat and moisture upon

the dormant and otherwise dead matter of the acorn, why may not the combined heat and moisture be called the cause of the resulting life? If they do not create the life resulting from the subjection of such an acorn to their power, when can such life be said to be created?

Is it when the flower, from which the germ starts, is fructified, or when the acorn, fully developed and increased within its protective armor, drops from the parent tree? Or does creative power patiently wait until by chance the accidents of acorn, heat and moisture all combine together, and then interpose its creative fiat?

Without being able, perhaps, to answer a great many questions which may and doubtless will arise in attempting to pursue speculations or formulate even approximately clear ideas on these interesting and important subjects, it seems plain that the oak grows from the acorn by virtue of natural laws inherent in the substances of which the oak and the acorn are respectively composed; and that in the uncounted and uncountable successions of generations since the first acorn sprouted and the first oak reared its limbs toward the heavens, there has been no new creation or exercise of creative power of any kind.

It is not proposed at present to enter upon the question of what may be called the original creation of the primeval germs. But if the oak be produced by virtue of forces inherent in matter, it seems to follow that there must have been a primeval germ of some kind or other. If so, whether such germ were brought forth by a divine act of creation or were merely the natural and necessary result of a certain aggregation of matter, however brought about, it must have preceded both the acorn and the oak. If such were the case, the question before mentioned, as to whether the acorn originally came from the oak or the oak from the acorn, does not present any very great difficulty. The answer clearly is, that neither originally came from the other, but that both were evolved *pari passu*, side by side, by gradual development from earlier forms, commencing with the primeval germ.

When the oak dies, as in the space of a comparatively small period of time it does, it turns again to dust and eventually to inorganic dust, substantially similar to the inorganic matter of which, by virtue of its wonderful assimilative powers, it originally built itself up. The leaves which, from season to season, performed their functions and appropriated and assimilated their appointed portions of carbon, just as regularly after their work was over, first turned yellow and then brown, then fell off, rustled for awhile over the ground, drifted into hollows, and in time rotted into mold. The wood of the tree lasts longer; but it, too, eventually must succumb to the same fate. If it be cut into cords and thrown into the oven, the change is more rapid than if it be left to lie in the forest until it returns to its original elements; but in both cases the process is essentially the same. Under any and all circumstances, whether it be by the rapid consumption of fire, or the slower process of parasitical dry-rot, or the long and tiresome disintegration of gradual decay, there is, in the end there must be, in every case, a disruption and dissipation of the molecules as if they had never been united in a living body.

HORTICULTURE.

Damsons in Tulare.

The Tulare Register advises the orchardists of that county to pay more attention to the damson plum, the culture of which has given very satisfactory results. The Register says:

With perhaps the single exception of grapes, the common damson has proved to be the most prolific fruit raised, taking one year with another. It would not take any great amount of it in an undried state to supply the home demand, but, properly dried, it has the world for a market. A farmer near Tulare who has about 50 trees, informs us that they commenced bearing the second year from setting, and for five years have not failed to crop, though apricots, peaches, apples, etc., have each had their "off years." But for vigorous pruning the plums would, most seasons, bear their limbs to the ground, and the trees are one of the most attractive in the orchard for their beautiful and prolific fruitage.

No fruit tree stands this climate better than this plum. About twice as many trees can be set to the acre as of the larger kinds. If properly pruned, they bear their fruit low enough to be mostly picked by hand from the ground. Birds and tramps do not mutilate or destroy the fruit, nor insects assail the trees as yet, and if they should they would be much easier got rid of than from trees of a larger growth. The fruit is so late in ripening that most of the bird and insect pests are gone before the fruit is sweet enough for their taste. It dries nicely most seasons if left on the trees, but pitted and dried in the sun the fruit commands a better price and readier sale than sun-dried grapes, apples, peaches, figs, apricots or pears. As a shipper and keeper in a green state, it is not excelled by any fruit we know of raised in this State. E. M. Dewey, who has a few trees in bearing, confirms what we have said. He is putting out damsons in place of other sets this year, and next year he intends replacing his apple trees with plums, apples not being a suc-

lie III, 17 701.
Springfield, Ill.

PHIL THRIFTON.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

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In consideration of a certain contract entered into this day between Dewey & Company, publishers, and the California Patron Publishing Company of San Francisco for the publication of a weekly Grange edition of the PACIFIC RURAL PRESS, and the California Patron as a monthly,
Resolved, That the Executive Committee of the State Grange of California hereby designate and endorse the PACIFIC RURAL PRESS as the weekly organ and the California Patron as the monthly organ of the State Grange of California.

The Ballot Reform Needed.

Considerable discussion of the proposed election system has been taking place of late both in the press and in organized bodies throughout the State. We have before recommended that the different Granges take up this matter and discuss it, and we wish to emphasize the suggestion now. The following lucid explanation of the effects of the law on the voters of our State, from the pen of Judge Wm. C. Blackwood, Master of Eden Grange, Haywards, will probably assist Patrons in arriving at a thorough understanding of the proposed law. We recommend a careful perusal of the same, and that some action be taken to urge members of the Legislature to act in favor of the bill:

MESSRS. EDITORS:—That some system needs to be devised by which an honest expression of the will of the people by a free ballot can be obtained is no longer open to controversy. A system is needed which secures to the elector absolute secrecy as to the ticket he votes. A system is needed which offers the least possible security to the vote-buyer that he will get value received for his money when he would part with it for a ballot to be cast for his candidate. A system is needed that may enable men to become candidates for offices without sacrificing their manhood, and without subjecting to election expenses nearly equal to, and in some instances exceeding, the emoluments of the office to which the candidate aspires.

A system as indicated is demanded by every honest, intelligent elector. All the essential features of such a system seem to be embraced in the new Election bill, embracing the so-called Australian system of conducting an election now before the Legislature for consideration. The provisions of this bill would seem to provide for an absolutely secret ballot. The ballot being an absolutely secret one, the vote-buyer can have no security that the man whose vote he buys will deliver the vote as per contract. This buying and selling votes being a nefarious transaction, the dealer in ballots will naturally distrust the honesty and good faith of him who would sell his birthright for a mess of pottage, and that, too, when he held in his hand both money and the mess of pottage, with power to deliver the pottage, or not deliver, and the vote-buyer be none the wiser. It does seem to me that vote-buying under the provisions of the bill would be reduced to a minimum.

Again, under the provisions of the bill there is no excuse for assessing candidates for election expenses. These, as is well known, under the present election system, are so great as to deter many capable men from aspiring to public office. These heavy election expenses are made an excuse for the high salaries attached to county offices. Abolish these heavy election expenses, and then the people, with some show of realization, may demand a reduction of official salaries.

Again, the provision of the bill opens a way to independent nominations when the candidate is put forward by his fellow-citizens respectable in numbers. This provision of the bill I regard as among the best in it, as it would make nominating conventions more solicitous to bring forward for office the most suitable men in their respective political organizations.

If the people of the United States would preserve inviolate the elective franchise, they must adopt some plain law of election which, as far as possible, will secure to every elector the right without fear or intimidation and the power to cast his ballot for the man of his choice. Vote-buying and vote-selling must be made, as it once was, dishonorable and disreputable. Election expenses must be borne by the people, and not by the candidates, all of which the impending bill before the Legislature, if enacted into a law, will tend to accomplish.

BLESSINGS IN VARIETY.—An "exchange" remarks that a gun club, a Grange of the Patrons of Husbandry, a brickyard and fair crops are in prospect at San Miguel.

From the Master's Desk.

BROTHER EDITORS:—I am home again after a few days' absence on Grange work. I left home on the evening of the 4th for Merced, to meet the Worthy Master of Wisconsin State Grange, Bro. Carr, who was to speak at an open meeting on the 5th, to the Grangers and all others who would favor him with their presence. I was accompanied by Bro. McIntosh, Overseer of Stockton Grange. We left Stockton at 8:05 P. M., and arrived in Merced at 3:30 A. M., being compelled to lay over at Lathrop four hours. Met Bro. Carr and also Bro. and Sister Carr of Bennett Valley Grange. Listened to him in the afternoon. His address was very interesting and instructive, and, I think, appreciated by all. Held an informal meeting with closed doors in the evening, and rendered the secret work. Left at 5 A. M. for Stockton, and arrived at 8 A. M. Attended Stockton Grange, which opened about 11 A. M. with a good attendance. At 12 M. closed the Grange and repaired to a bounteous luncheon. At 2 P. M. returned to the main hall and commenced an open meeting. Worthy Past Master Wm. Johnston and daughter arrived just before lunch. At 2 P. M. the meeting was called to order and opened by singing, then Bro. Johnston was introduced and welcomed Bro. Carr in the name of the State Grange to our State and Grange circle. In response Bro. Carr gave us a treat in a very able and instructive talk, a synopsis of which I will inclose from the Stockton Mail. On Thursday morning, my wife and I, accompanied by our guests, took the 8 A. M. train for Sacramento, and before reaching our destination, our little band of good and true Patrons had increased to 16. Arriving, we found that stalwart Granger, Bro. Flint, awaiting us at the depot, and as arrangements had been made for our meeting at 1 P. M., we had some time on our hands, which we put in very pleasantly, and I think profitably, by visiting the Capitol. Found the Legislature in session, visited both the Senate and Assembly; also the Governor. Found him alive to our interests, and willing to co-operate in all good measures to forward the interests of our State and agriculture. He informed me that an invitation had been sent to the Secretary of the National Grange by the unanimous vote of the Legislature, through him, for that honorable body to hold their next annual meeting in California. We also met that stalwart Granger, B. F. Langford, who has gained the title of "the Father of the Senate." To him we are indebted for the bill which has been introduced in the Senate to appropriate \$10,000 to help defray the expenses of the N. G. on this coast. And I would recommend that all Patrons who are anxious to have the N. G. come to this coast write at once to their representative and explain why we ask for the appropriation. A committee of seven was appointed by Sacramento Grange to look after the bill—three brothers and four sisters. We had a good meeting, and Bro. Carr is more interesting every time you listen to him. We left on the 6 P. M. train for home, feeling a regret we could not continue our trip and visit to San Jose on Saturday, but business at home prevented.

While at Merced I was told by two young sisters that Merced Grange was going to try to get the premium which is offered in the last RURAL PRESS for the first class of ten—men and women. But I will say they will have to look well to their laurels, as Stockton Grange is waking up, and received two applications at the last meeting. Stockton Grange had a good meeting on the 9th and I think Bro. Carr had done a great good to all the Granges where he has been.

Yours fraternally,
W. L. OVERHISER.
W. M. S. G. of Cal.

Reception at San Jose.

MESSRS. EDITORS:—Saturday, February 9th, was an enjoyable day to all who had the good fortune to be present at the generous reception tendered by the San Jose Grange to Worthy Master S. C. Carr of the Wisconsin State Grange and Brother and Sister Nelson Carr of Bennett Valley Grange. The visitors were met at the incoming train and taken to the hall. After introductions and friendly greetings, all who wished were driven about the city. Returning, we were favored by a song from the talented, well-known poet, author and songster, James G. Clark, which was highly appreciated. As an encore, he kindly favored the audience with an original unpublished gem, entitled "Star of my Soul." Then all were seated to partake of the Harvest Feast, which reflected great credit on the superior taste and abilities of our San Jose sisters as practical cooks. Their generosity was fully evinced by the tempting viands which filled to overflowing four long tables. Conversation and good cheer abounded. A witty toast offered by Brother Cressey brought forth sharp crisp responses from Worthy Master Alley, Brothers Wilcox, Nelson Carr, Sanders, Dewey, Sister Carr and others. Sister S. A. Bicknell offered a toast. By invitation of Bro. Dewey, Professor Clark kindly gave a whistling song, imitating most perfectly the varied liquid notes of the western meadow larks, ending with a most amusing description of a rival scene between two of these songsters of which he was an eye-witness. Adjourning from the tables, we were called to order and Sister Roxie Dennis of Eden Grange sang "Sunshine After Rain," followed by a recitation

from Sister Jessie Calhoun, Lecturer of San Jose Grange, entitled "The Jealous Wife." This very pleasing program closed with a song from Mrs. W. D. Ritell entitled "Marguerite." At its close Worthy Master Alley arose and introduced the distinguished guest and orator of the day, Worthy Master S. C. Carr of the State Grange of Wisconsin, who held the audience interested and spellbound for nearly two hours with his earnest, glowing words. He concluded his address by most eloquently exhorting the members of the Grange to live in the sunshine and not in the gloom. At its close, on motion of Captain Dunn, a vote of thanks was given to the speaker. Worthy Master Alley then read a telegram from W. L. Overhiser, Worthy Master of the California State Grange, congratulating San Jose Grange on having Bro. Carr with them and expressing regret at his inability to be present. Among those present was Bro. T. T. Hooper of Montezuma Grange and Bro. and Sister E. Howe of Wisconsin.

S. H. D.

Temescal Reception.

MESSRS. EDITORS:—Through the kind invitation of Sister M. S. Smith of Yuba City, the members of Temescal Grange assembled on Saturday evening last at her beautiful, newly-built Oakland home to do honor to our distinguished guest, S. C. Carr, Worthy Master of the State Grange of Wisconsin. Bro. and Sister Nelson Carr of Bennett Valley and Bro. T. T. Hooper of Montezuma Grange were also present, and other invited guests. Bro. Carr being introduced by Bro. Dewey, responded with earnest, well-chosen words. Having to leave on the 9 o'clock train for Pasadena, his remarks were necessarily brief but full of meaning, and will long be remembered, together with his genial, social manner and hearty handshake. We hope to meet him again in November next at the National Grange held in California. Worthy Master Goodenough responded in behalf of Temescal Grange in his usual timely and happy manner. A resolution, published elsewhere, thanking Bro. Carr for his visit, was adopted.

Our good brother then departed for the train. Nearly all of the others lingered, and Sister Smith's daughter favored us with a piano solo, and later on with a fine recitation. Dora McGrew also kindly gave a piano solo, all of which was thoroughly enjoyed by all. Refreshments followed, and at a late hour for Grangers, we took leave of our genial hostess well pleased with our informal social meeting. S. H. D.

Laws Regarding Homicide.

EDITORS PRESS:—Is it not about time to make some change in the attitude of the State toward those citizens who put others to death by bludgeon, pistol, dirk or poison? We have now had laws on our statute-books against murder for a great many years, but people keep on murdering. The papers are full of accounts of such illegal doings, and the survivors of these killing affairs are often arrested and put to a great deal of trouble and (if they or their friends command money) to great expense in the way of hiring "legal talent," while it costs the State, also, thousands upon thousands of dollars to try and ultimately acquit them. It is true that now and then a poor Chinaman, and at still rarer intervals one of the Caucasian race, is sent to prison for life or dramatically executed for unjustifiable homicide, but these sporadic cases are exceptional, and the antiquated prejudices that still prevail in some quarters against murderers as a class ought not to be allowed such weight when practically they occasion so large and useless an outlay of the people's money.

We don't believe in keeping dead-letter laws in the code; if they are not backed by a public opinion sufficient to insure their enforcement, better have them repealed. The fact is, men always have murdered, more or less, since the earliest days of which we have any record; they still do it, and the probability is they will keep on doing it in some measure, and you can't prevent it.

Then why not try to devise a way by which the State can derive some income from a practice that it seems powerless to put a stop to?

Why not pass a law forbidding assassination without a license, and placing the license so high that only respectable and influential persons could indulge in it? If inconvenient for the applicant to pay cash in advance, he might be required to give bonds in such amounts and with such securities as certain officials (to be specified in the statute) might deem sufficient to protect the financial interests of the community.

If we can't suppress by law even such "crimes" (the word may seem harsh to some) as running the gambling business on State and district fair-grounds, selling liquor to minors and habitual drunkards, or drumming for lottery swindles (unless it be those conducted by Mongol aliens), why hope to effect any considerable good by these terribly expensive and tedious murder trials? Why not use some common sense in the matter, make the best of the actual conditions, and get some revenue out of what we can't abolish?

S. Y. D.
Sacramento, Feb. 12, 1889.

The P. of H. Driving Along.

There seems a "Forward March" movement in the Grange on this coast. The visit of Worthy Master Carr of Wisconsin has had an enlivening-up influence in various quarters. Worthy Master Carr was highly pleased with his reception everywhere by our Patrons. He will take a good word from California to Wisconsin and wherever he goes.

Brother Roache, who recently organized San Lucas Grange, writes that the new members are very enthusiastic, and with a little help and encouragement in becoming well posted in their duties, will no doubt settle down into a splendid working Grange. The recently reorganized Grange at Salinas seems determined to be well heard from in the near future. We have no doubt but that the old and new members who propose to join the reorganized Gilroy and Hollister Granges will succeed well. Each of these Granges mentioned will be a help to one another, and make a good showing for that section of the State.

The Grange is a progressive Order. The changes which have been made in the constitution of the National and State Granges, increasing materially the rights and privileges of subordinate Grange members, cannot otherwise than prove of great benefit to the Order as a whole. The adoption of the combined ritual, condensing and improving the initiatory services, and affording more time for agricultural discussion and social privileges, will help start the Grange along.

Let every farmer who believes in combination and co-operation for the benefit of all agricultural interests now step forward and put his shoulder to the wheel "in the nick of time."

Work for an Improved Election Law.

Let every Patron read in our columns to-day Judge Blackwood's candid and well-considered words in regard to the proposed new election law. If such a law can be secured for California, we believe it will do more than all other laws possible to be passed at this session of the Legislature in the welfare of the people. We think his statements in favor of the law are sound and incontrovertible. We would name another good feature of such a law, regarding the manner of nomination. It often occurs that Democrats for non-political offices would prefer for a non-political nomination to vote for some Republican whom he considered pre-eminently fitted for a certain position. On the other hand, some Republican might prefer a Democrat under similar circumstances. Under the proposed new law, they could unite in nominating, under such circumstances, the best man of all others.

We hope every friend of reform will look into this matter, and become sufficiently earnest to write in season to their own members in the Legislature, and back them up in voting for the proposed new law. We would urge this question as one of the utmost importance to be discussed in our Granges at this time.

Hollister Grange.

We have a good deal of faith that one of the best Granges in the State will be reorganized at Hollister, as we know some of the men who are leading spirits in it. Bro. Nason, who lives in that jurisdiction, is one of the most earnest Patrons who has visited the State Grange. Mr. S. T. Elliott, who is down for a new member, is another sterling man and able speaker who has the courage of his convictions wherever he goes or talks. Hollister Grange, when reorganized, will be in good hands. We urge all good men and women who may see this notice and are eligible to become members, to present themselves at the meeting on Friday afternoon without fail.

AN HONORABLE INSTANCE.—The Bulletin correspondent writes from Sacramento, under date of Feb. 8th, as follows: The members and attaches of the Assembly who attended the session yesterday came near suffering a general stroke of paralysis. One of the attaches, by name George E. Waddell, appointed File Clerk about three weeks ago, resigned because he could find nothing to do. His conscience was not equal to the strain of drawing \$4 per day from the Treasury without rendering any service therefor. Mr. Mullaney attempted to take advantage of the situation by introducing a resolution to appoint M. A. Devine to the vacancy, whose conscience is, presumably, equal to the occasion, but when Speaker Howe announced that Waddell had come to him and resigned because he could find nothing to do, the Assembly, in its blind amazement, referred the resolution to a committee. Some of the members, and all of the attaches, are still suffering from the shock. Waddell is looked upon as a curiosity wherever he goes. His case will go down in legislative history as the most remarkable ever known. The position of File Clerk never had any existence, for the file is made up by the clerks at the desk. Nobody ever suggested anything for that clerk to do, except to go to San Francisco and stay there until sufficient salary accumulates to pay him for returning to Sacramento. The Assembly will probably not appoint Waddell's successor.

About Grange Reorganization.

Gilroy Grange.

February 7th we were fortunate in meeting a number of the old members of this Grange in Gilroy, who were not included in those pledged for reorganization by Mr. F. B. Logan, agent for this paper.

There is no doubt in our mind that a good strong Grange can and ought to be built up soon in this improving town and its farming neighborhood. The good effects of the final settlement of land titles adjacent to Gilroy are already being felt in town improvements. The successful cultivation of a large variety of fruits in this part of the Santa Clara valley has already increased its thrifty horticultural and farming population.

Many of the difficulties and discouragements which have beset Granges generally throughout the State, as well as local drawbacks during years past, have been so far removed as to give new and decided encouragement for the future growth and welfare of such as are reorganized by willing and determined hearts and hands.

Half of the ritualistic work has been dispensed with and the rest improved. The annual State Grange meetings have constantly increased in attendance and interest even while the number of subordinate Granges was declining.

The educational and social features of the local meetings have also been advanced, and from what we have seen and learned in Gilroy, we feel more than hopeful that a permanently useful and enjoyable association will now be formed.

Old members will be reinstated on the payment of \$1.20 each; and without formal initiation new members will be received at the organization at the rate of \$3 for men and \$1 for women. Boys can now join at 16 and girls at 14 years of age.

Hall rents are cheaper now in most towns in this coast than they were a few years ago. The emblematic badges of the Order are better and handsomer at about one-fourth the cost of the old style of regalia.

Exchange visits between neighboring Granges are more common, and have a gratifying and sustaining influence on the membership in various counties.

Watsonville Grange is becoming enlivened, and will doubtless hold more than ordinarily interesting meetings during the year. Sister Roache, its talented Master, is one of the highest and well deserving past officers of the State Grange. When called upon to speak or recite, she has never failed both to please and to enlighten the patriotism of her listeners.

The achievement of Watsonville Grange in making agricultural fairs successful without gambling, pool and dram selling can be equaled by Grange co-operation in Gilroy, as well as other places, in other good work.

Try it, farmers, young and old. It will do you all good. It will pay as you go. That must be a poor soul that has frequently met in fellowship before the altar of the Grange and not a better man or woman for it.

Farmers, don't let the failures of long ago deter you from combining and securing an even leverage with other organized industries and less worthy combinations.

The financial and other important conditions of the Grange in our State and nation, by reason of the education and experience of the past, are better than ever before for the encouragement of subordinate Granges.

More time is to be devoted to agricultural, domestic and financial improvement and government reforms.

The meeting at Gilroy will be held in Wright's hall at 2 P. M., Thursday, Feb. 14th, with Bro. A. P. Roache, steward of the State Grange, as organizing deputy. We hope a visiting delegation of Patrons from San Jose and other Granges will be present. Members of Gilroy Grange and other eligible farmers, their wives and daughters, should attend generally and embrace the opportunity now offered.

We regret that the meeting is set at so late an hour as 2 P. M. The attendance should be prompt. The hall will be open at an earlier hour, and we would suggest that those who can, meet earlier for conference and exchange of views and social greetings.—*California Patron for February.*

A LIVE ASSEMBLYMAN.—We print in another column the essential portions of the bill relative to an increased plant of jute machinery at the State Prison, and limiting the price of jute goods, introduced into the Assembly by Bro. D. A. Ostrom of Yuba county, who writes us that the farmers seem to be more interested in this bill than almost any other. He has also introduced a bill, similar to Langford's Senate bill, appropriating \$10,000 toward the entertainment of the National Grange in case it holds its next session in California. We are also indebted to our wide-awake Wheatland brother for copies of numerous bills before the Legislature this winter.

TRAMPS AT SANTA CRUZ.—The *Surf* claims that its persistence in showing up the cost to the county of feeding tramps and getting nothing in return, when the law compelled petty criminals to be worked on the streets, etc., has at last effected the fulfillment of the law, which allows the sheriff to turn prisoners over to the city authorities to be put at work for municipal benefit.

Therefore Chief of Police Lunt will have the man of many names, with shackles on his legs, busily engaged this morning in performing the much-needed act of sweeping Pacific avenue. Chief Lunt is having half a dozen pairs of shackles prepared for tramps and other petty criminals, and all will be put to work at long sentences. This is believed to be the best way to rid this county of tramps and of small fry malefactors.

Merced Grange.

MESSRS. EDITORS:—Merced Grange, No. 7, P. of H., met in Pythian Castle, Feb. 2, 1889, Worthy Master Elliott in the chair. After the Grange was called to order the Worthy Master handed the gavel to Bro. Frisbie, Deputy at Large, to instruct two sisters in the Third and Fourth Degrees, which was done in a very able manner, as the brother has memorized the secret work. Then our Organist played a march and all went out to the well-laden tables and did full justice to the viands, especially the Secretary, who ate a great deal and a long time.

Then all repaired to the hall and the officers were installed, except the Lecturer, Chaplain and Steward. Bro. Frisbie was assisted by Bro. Brouse of Ceres Grange. The worthy brothers were given a vote of thanks for the able manner in which they did their work. The Grange was appointed a Committee of the Whole to meet the Worthy Master of Wisconsin State Grange and W. M. of California State Grange, to make their short stay pleasant while among us.

MRS. E. S. ELLIOTT.

Decline of the Debris Evil.

Ten years ago no fair-minded and candid citizen had any doubt as to the equity of the then arising conflict between the people of the Sacramento valley and the hydraulic miners. The valley being the "under dog in the fight," it was held by many well-meaning men to be a hopeless and unequal contest. However, the original "cabbage-patch" that was being injured grew to be a good-sized farm, then several farms, then townships, then navigable rivers and bays. All these interests became a unit on the side of equity, demanding protection and preservation. Whatever the opinion then, we can now see the inevitable which, though delayed by a wily foe, was nevertheless inevitable.

During these years of agitation the State and the General Government have ranged themselves on the side of the injured farmers and rivers, and although their mills have ground slowly, the gri t is about completed.

It is now well understood and relied upon by capitalists that the rivers shall not again be used as sluice-ways to transport the mountains to the valleys and the sea, and we find them investing millions in river-lands either in purchases or loans for their improvement. Thus we have the new and very extensive enterprise of A. T. Hatch on the Hamilton bottoms on Feather river, eight or ten miles below Oroville, where 800 acres are being planted to orchard. Here an interest of millions in horticulture is growing up, right in the track of the avalanche that was to have come from the Miocene and other hydraulic mines, except for the interference of the courts. Can any one suppose that that adjustment will be reversed? Will any one believe that Mr. Hatch did not realize what he was doing? Again, we are cognizant of a loan of \$30,000 to \$40,000 having been made by a San Francisco loan office on a large tract of land lying in the "very jaws" of the fell destroyer, with a full knowledge of the situation both as to the lay of the land and the hydraulic situation, who stated to the writer most emphatically that except for the present prospects not a dollar would have been invested in that direction. We may also rightfully claim that the present faith in our river lands and demand for river improvement is based entirely on the improved condition of the mining question. We might add other known evidence of the stability of the winning cause were it necessary, but the truth of it will hardly be controverted.

Now a word to our antagonists and we are done. It was of course expected that complete submission would follow upon the heels of the declaration of the law; that it was not so is certainly no fault of the valley, and reflects very unfavorably on the defendants. That the stubbornness is gradually giving way to better counsels is apparent in our rivers and all along the hydraulic districts; that greater values reside in the ex-mining ditches for irrigating purposes on the western slopes of the Sierras than for mining purposes is becoming a daily fact; hence the anti-hydraulic, anti-mud, anti-slickens, sentiment is gradually becoming universal. The forbidden industry can never be revived, and with its disappearance will come the old feeling of mutual regard and a community interest. The valley could not have been less determined, and it will forgive and forget, and hope for a better era for all concerned.—*Sutter Farmer.*

BRO. D. WOODMAN has written Worthy Master Overhiser that he will be in Stockton the last of this month in time to attend the Pomona Grange meeting. A visit from our sojourning Bro. will be appreciated by the San Joaquin Patrons. There is a long latch string out for him at Temescal's gate, also.

Worthy Master Carr's Reception.

[From the *California Patron* for February.]

It is gratifying to all Patrons that so hearty a reception has been given to the Worthy Master of the Wisconsin State Grange at the points visited—Tulare, Merced, Stockton, Sacramento, etc. The Patrons of each place have done credit to themselves and their fellow-Patrons of the State. They have made grateful the heart of the noble representative of Wisconsin, who has been so magnanimous as to sacrifice a goodly portion of the limited time he could command from his official duties at home for visiting his noble kindred on this coast, own brothers and their wives, whom he had not met for a period of over 35 years.

His deep regrets were sincerely expressed at not being able to visit Yuba City Grange on account of physical inability resulting from a cold unfortunately contracted. No one regrets this unavoidable event more than ourselves. We have not heard from Yuba City, but have no doubt that a host of loyal Patrons would have received him with honor, and been more than pleased with Bro. Carr's plain but earnest eloquence.

A very pleasant party of Temescal and other Patrons gathered at the residence of a member of Yuba City Grange, Mrs. Mary S. Smith, residing at Oakland, where, with Bro. Nelson Carr and wife, all bade him good-bye and God-speed. A very enjoyable evening was spent by all present, and the following resolution adopted:

Resolved, That we heartily extend Worthy Master S. C. Carr of Wisconsin State Grange many thanks for his able and generous services in visiting and speaking before this and other Granges and eloquently advocating our cause, for the benefit of Patrons and farmers throughout our coast, and that we hope to welcome him again to our State, together with all other members of the National Grange; also that sincere thanks are due Bro. Nelson Carr and wife of Bennett Valley Grange for accompanying and assisting Worthy Master Carr in his travels.

Bro. Carr's visit will be long remembered among the bright hours spent in educational and social Grange work in the lives of our Patrons. We trust that his visitation is but the forerunner of other good things to come, in the way of more fraternal exchanges to be enjoyed hereafter, and which, with enlarged experience, we shall be able to make more widely effective in usefulness and enjoyment.

Jute at San Quentin.

Assembly Bill No. 14, introduced by Mr. Ostrom Jan. 14th and referred to the Committee on State Prisons, appropriates \$160,000 for the immediate purchase of additional jute machinery, the erection of buildings for the manufacture of jute goods, etc., and is mandatory as regards the Board of State Prison Directors, the State Controller and the State Treasurer.

The third and fourth sections are as follows: **SEC. 3.** It shall be the duty of the Board of State Prison Directors from time to time to fix the price at which jute grain-bags and other jute products shall be sold by the State, but at no time shall the price so fixed be more than one cent for each grain-bag in excess of the net cost of producing the same, exclusive of prison labor; and it is made the duty of the State Prison authorities to confine the sale of jute grain-bags and other jute products to farmers and other consumers, and to retail dealers direct; but no order shall be filled for any one individual or firm during any one year for more than fifty thousand bags or their equivalent in other jute goods, except on request of the Warden and the unanimous approval of the State Board of Prison Directors.

SEC. 4. Demands for grain-bags and other jute goods by farmers and other consumers, and retail dealers, shall be promptly filled in the order in which they are made, but when the supply shall be short, demands shall be registered at the prison as they come in, and filled from the output of the jute-mill in the order of registration.

A previous legislation which would conflict with the Act is repealed, and the Act is to take effect from its passage.

Florin Grange.

MESSRS. EDITORS:—The installation of our officers for the ensuing year did not take place on the 9th on account of the death of Sister E. Reese. Her funeral took place on Friday, the 8th. She was one of our oldest members, being 71 years of age, and was also a charter member of Florin Grange.

We have at present a class of three on their way to the Harvest Feast, a notice of which will be given to all members in due time.

Florin, Feb. 10th. S. H. FASSETT, Sec.

AN ABSURD SWINDLE.—The *Vallejo Chronicle* of Feb. 8th says that a middle-aged man, well dressed, was around that town Wednesday, visiting private residences and working one of the most bare-faced swindles of the age. He had in his overcoat pocket a few bunches of small-sized lamp-wicks, colored a light bluish tint, which he claimed possessed a chemical property that, when placed in a coal-oil lamp, would cause a brilliant light and keep the oil from consuming; that with one of the wicks placed in the lamp the oil would not burn out

for six months. He was a smooth, oily-tongued talker, and succeeded in disposing of a large number of the wicks at 25 cents apiece. He could sell no more than six in one house, according to instructions from the company manufacturing the wick-ed swindle. In several instances he succeeded in selling that many at one time. At night, after the lamps had been lighted, the anxious housewife watched in vain for the oil not to disappear as of yore; but it was of no use, it burnt out just as fast as ever, and no better light was given. And now there are in town a hundred females irate over the swindle they had perpetrated upon them.

From Worthy Pomona.

MESSRS. EDITORS:—Yesterday morning, in company with my father, I took the train for Stockton. We arrived there on time and went directly to the hall, where we found many happy brothers and sisters assembled to greet our distinguished guest, Bro. Carr, Worthy Master of Wisconsin State Grange.

After a few remarks from members of Stockton Grange we were invited to march to the banquet-hall, where a genuine Grange dinner was spread, which all seemed to enjoy, if one could judge by the way the chicken salad and roast turkey disappeared. After our return to the hall Bro. Overhiser introduced Past Master Wm. Johnston, who welcomed Bro. Carr to our midst. Bro. Carr then entertained us for an hour, an hour that seemed but half the time, a fact made evident by the profound attention given him while he gave one of the finest Grange lectures ever delivered on this coast. Many others were called upon, who responded cheerfully, giving wings to the afternoon, and we left Stockton well pleased and with a resolve to accept all invitations we may be fortunate enough to receive from that Grange.

Yours fraternally, MATIE U. JOHNSTON.
Sacramento, Feb. 7th.

Grange at Hollister.

EDITORS PRESS:—I read in the *PRESS* lately that Gilroy is to have a Grange organized there. I have heard old farmers who used to belong to the Grange in Hollister express an opinion that if it were started here again it would prosper and be of profit to the farmers.

Years ago, when the Grange was so popular in Hollister, many joined it who were heedless, and did not fully realize the purpose it was intended for. Consequently, when the first wave of trouble came many were ready to drop it instead of trying to uphold and carry it through.

I think were it reorganized, few but substantial, sober farmers would join; so it would be on a firmer basis and more likely to be permanent.
Hollister, Feb. 10, 1889. SUBSCRIBER.

Roseville Grange.

Bro. Secretary: Inclosed you will find list of installed officers. I sent you a complete list immediately after installation. Our new officers seem to be awake and have resolved to make Roseville Grange a live Grange. Last meeting our hall was filled with smiling faces, noticeable quite a number of young members. It was decided for the best interest of our Grange and the advancement of our Order and intelligence of our members that our Grange institute a free circulating library for members of the Grange.

Also, quite a lengthy program was prepared by the Committee on Good of the Order for next meeting, third Saturday in February.

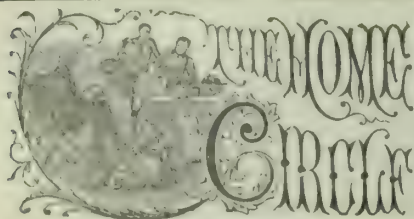
Roseville, Feb. 9th. M. T. L., Sec.

The Grangers' Bank.

A very significant indication of the confidence which the stockholders of the Grangers' bank have in that institution is found in the promptness with which the seventh annual installment of 10 per cent of the par value of the shares has been paid. The notice of delinquent stock which is published this week contains only the shares which belong to an estate and in which a doubt arises between the trustee and the legatee as to where the duty of paying the assessment rests. Had it not been for this complication, there would have been no stock delinquent.

The payment of the seventh installment, with others which have preceded, gives the bank \$700,000; add to this the amount of stock fully paid up and the reserve fund, which is about \$110,000, and the bank is seen to have a capital now of \$810,000, fully paid in, a near approach to \$1,000,000, which is the par value of its capital stock. It will soon reach its solid million dollars. What a contrast to the condition at the opening in April, 1874, when Manager Montpelier, then teller, received \$24,000 as the full cash assets of the institution. During its life, up to January 1, 1889, the bank has paid cash dividends to stockholders of \$575,000. This is a good and promising record.

BAGS AT SAN QUENTIN.—The Assembly Prison Committee finds that the night shift at the jute-mill at San Quentin is not a success. It costs 5½ cents to make a bag in the daytime, and 9 cents at night—more than the price received.



The First Cigar.

'Twas back in papa's old woodshed,
One beasty, sultry day,
I sat upon a cracker box
And whiffed and puffed away;
And as the heavy smoke arose
Like fumes from burning tar,
I heaved a sigh, a deep "Oh, my!"
It was my first cigar.

I leaned upon a cordwood pile,
As sick as sick could be,
The curling, writhing, snake-like smoke
Seemed bent on taunting me.
I fancied me as borne away
On swiftly moving car;
I cursed the day I first indulged
And smoked my first cigar.

I saw a promised bright career
Fast drawing to an end;
I felt broke up and much the same
As one who'd lost a friend.
Within my boyish vitals
Was raging a fierce war.
"O Lord!" I cried, in accents wild,
"Forgive my first cigar."

I've seen the girl, the one I love,
Shake me for Jack or Jim;
I've stood behind a busted flush
With features dark and grim,
But I never had a feeling
That could with that compare
When, silly boy, I sought the shed
And smoked my first cigar.

—M. J. Donnelly in Pioneer Press.

The Bachelor's Mail on Valentine's Day.

I am a bachelor, the lawful butt
Of maiden shyness and of boyish wit.
That villain postman—now my door is shut
I fear the burly rascal not a bit—
Has piled my table full of notes and cards,
All sorry trash, I'll wager. Let me see;
My washerwoman sends me her regards;
Ads; tradesmen's bills; appointments two or three.
H'm, now the valentines; each year they come,
By saucy nephews sent, and nieces bold.
Imprimis, here's Jack Horner, with his thumb
Immersed in pie; the legend—"You are old;
Explore the matrimonial pie before
The plums are all picked out." Well, well! and
there,
A bald head and a bottle—"Twill restore
Those locks ambrosial; try it!" I declare
I've read enough. When children, ten years old,
Preach matrimony, I'll resist no more,
But fling my heart and hand, my name and gold
At the first head that peeps inside my door.
(A knock; the laundress enters.) Fate forlorn!
Here, woman, take thrice what your work is
worth—
(She leaves, amazed.) St. Valentine, befriend
The bachelor—he has no friends on earth.

—Walter Clarke, in Table Talk.

The Reedstown Postmistress.

[Written for the RURAL PRESS by I. H.]

(Concluded from last issue)

Tea was just over, when Mr. Archer appeared. Mrs. Anderson gave him a cordial welcome.

"These are my children," she said, turning to introduce them. "Margaret you already know, and this is Kitty."

"Kitty—" There was an indescribable tenderness in his tones as he looked at the girl who held out her hand with a blush and a smile.

"We gave her the name of the sweet young friend we remembered so lovingly," said Mrs. Anderson.

"God bless you, dear child," said Mr. Archer in low, fervent tones as he bent his head and touched with his lips the hand he held in his.

The bright color deepened on Kitty's cheeks and her eyes were full of tears. There was silence for a moment; then Mrs. Anderson recovered herself.

"Have you been back to the old home?" she asked.

"Yes, at last. Charlotte's daughter was married in December, and being in Boston on business, I must go to the wedding. Once there, I revisited all the old familiar spots, but I seemed to myself a veritable Rip Van Winkle."

"Is the place itself much changed?"

"You would not know it. Great noisy factories in the quiet, grass-grown streets, all the old houses pulled down, the picturesque little mill replaced by a huge pile of unsightly buildings. I seemed at home nowhere but in the cemetery among the dead."

"All, all were gone—
The old familiar faces."

"I could not stand it. I went back to Boston and took the first steamer for Liverpool to escape the ghosts of a dead past. But this is dreary talk for these young people to hear," he said, suddenly starting up. "Charlotte—you

remember my sister?—Charlotte was quite vexed with me, and said I ought to rejoice in the prosperity which has come to my native town. Perhaps I ought."

"I am sorry the old mill is gone," said Kitty. "I always hoped to see it some day. Mother has told us of the good times you used to have there. I suppose you remember the fishing party, when the girls were riding home in what we call a dump-cart, and in some mysterious manner the fastenings gave way and girls and fish rolled out on the ground together."

Mr. Archer joined in the general laugh. "Yes, I remember," he said.

"I have always had a strong suspicion that it was not altogether an accident," said Margaret.

"Come, come, this is retribution indeed—after thirty years to be reminded of one's youthful follies."

But all the same he seemed to enjoy the revival of old stories which Mrs. Anderson had made household words to the two girls. One followed another till the evening wore away and he left, promising to call again if he remained another day in town.

"Oh dear!" exclaimed Kitty, as soon as he was gone. "To think of any one being able to take the next steamer for Europe just for a whim! Doesn't it make you hear the rattle of your chains?"

"Thou shalt not covet," said Margaret, quietly.

"I am not coveting. I wouldn't take away his riches and reduce him to poverty, not even to go to Europe myself. It wouldn't become him at all with that air he has about him of a grand engineer. I declare, when he kissed my hand—"

"Kitty! Kitty!" interrupted Margaret, indignantly, "how can you be so shallow? That was something not to be spoken of lightly."

"Dear me, Margaret, I'm sure you must have seen that I had hard work to keep from crying; but one can't keep up that kind of thing forever. I was only going to say I don't covet his wealth, but I would like to share it if he would endow me with a generous slice on account of my name. That would be a tribute to his wife's memory."

"I'm afraid you are incorrigible," was her sister's answer.

Mrs. Anderson had not heard any of this idle talk. The awakening of old memories had been too much for her, and as soon as her guest was gone she had said good-night and sought the privacy of her own room.

Mr. Archer did not leave Reedstown the next day, nor the next, nor for many days after. The little community began to be greatly exercised on account of him. What was his business? Why did he stay so long? Was there any special attraction in Mrs. Anderson's house? It was difficult to find an answer to these questions, as no one dared to put them to Mr. Archer himself.

Kitty openly announced that he was an old friend of her father and mother. "I am his wife's namesake," she added.

"Oh, then he has a wife," was the response, and Kitty, for reasons of her own, added no more.

Evening after evening Mr. Archer spent in the cozy little parlor, where there was talk with the mother of by-gone days, reminiscences of travel, or chat about men and books. Gradually he fell into the habit of bringing a paper or a magazine to lend them; sometimes he would send for a book to be read together. Then, in the long summer evenings he would come with a double-seated buggy and take the three for a moonlight drive. It was all very pleasant, but they would have been strangely wanting in natural curiosity if no question of his motive had occurred to them.

Kitty was the first to take alarm. Was he falling in love with Margaret? That would be a calamity indeed. In her usual impulsive style she appealed to her mother.

"O mamma! don't you think Mr. Archer ought to know about Henry?"

"Why?" asked her mother.

"Oh, because it would be such a misfortune if there were any misunderstanding."

"My dear, I think you had better not recall to our memory the days when you were sometimes called meddlesome Kitty—"

"Mamma! how can you?" said Kitty, indignantly. "I don't mean to be meddlesome, but anybody might fall in love with our Margaret."

Mrs. Anderson made no reply, and Kitty chose to feel that the responsibility rested upon her.

A few days after, she took the matter in her own hands. Mr. Archer was in the parlor with her in the afternoon, while her mother was giving directions to a boy who was mending the garden gate. It was her opportunity. She took the photograph album from the table and began turning over the leaves, enlightening Mr. Archer as to the names of the different individuals.

Inconsistent Kitty! Often had she declared that this was the most idiotic thing any one could do by way of entertaining a guest. But it was not for the pleasure of saying "This is Cousin Sarah; that is Uncle John," that she had undertaken her task; she had a deeper design.

"What a fine face!" said Mr. Archer, as she turned a page and showed a cabinet picture of a young man, seemingly about twenty-five years old.

"Isn't it?" exclaimed Kitty, enthusiastically. "And he is just as good as he looks."

"Is he a particular friend of yours?" Mr. Archer asked, with a smile.

"Oh, no, not of mine; he is Margaret's special property."

"Indeed!" said Mr. Archer, and there was no semblance of agitation in his manner such as Kitty had half expected, wholly dreaded. "Where does he live?"

"He is up in Washington Territory, where he has taken up land and is working desperately to make a home for somebody."

"It is no secret, I suppose?"

"Oh, indeed it is, then; and for goodness sake don't say I told you," said Kitty, springing up and shutting the album.

Mr. Archer laughed, but Kitty thought it was from amusement at her quotation. She did not guess how easily he had seen through her little transparent trick and divined its motive.

Everything must have an end, and at last Mr. Archer broke in upon this pleasant state of affairs by declaring his intention of taking a trip to Alaska. The steamer was to sail in three days, and his passage had been secured.

"You will come back again before you go East?" asked Kitty anxiously.

"Oh, yes, unless something unforeseen occurs. I shall not say good-by yet."

"We will want to hear all about your trip. I am sure it will be delightful. I wish I were going, myself."

"I wish you were," said Mr. Archer.

Somehow it was Kitty who did most of the talking.

Mr. Archer went, and then the three women found what a change he had made in their quiet and monotonous existence. Now that he was gone, they missed him greatly. Kitty openly bewailed his absence, declared that everything was flat, stale and unprofitable without him; wished he had never come at all, because it would be still worse when he was gone forever; and much more in the same style.

Mrs. Anderson said little, assented to much that Kitty said when called on for an opinion, and was quieter and graver than usual, as she well might be when the association with an early friend had recalled all the losses and sorrows of the intervening years.

Margaret alone was unruffled. Her life's inner current had not been disturbed by Mr. Archer's coming or his going, and she went about her daily tasks as serenely as ever.

The weeks rolled by, bringing back their friend at last from his northern trip. He could not have asked for a warmer welcome, and his pleasure in returning was equally obvious. He came in and spent the evening as usual, giving a most interesting account of the land of wonders he had visited.

But Kitty was in despair; she had promised to be bridesmaid for a friend in San Francisco and was to leave the next morning.

"I thought I would be back before your return," she said, "or I would not have agreed to go."

Mr. Archer smiled a little sadly.

"When you are as old as I am, Kitty, you will know how true it is that 'happy days of the same kind never return.'"

"Oh, please don't say that," said the girl, her eyes filling with tears. "Why should change come over everything that is pleasant? You will not go away till I come back?"

"Not if I can help it."

And Kitty, confident in his ability to bend circumstances to his will, was content.

The next evening, as Margaret was locking the door of the postoffice, she saw Mr. Archer come out of her mother's house. He waited for her till she crossed the street.

"Will you walk with me down by the creek for a few minutes, Margaret?" he said. "I want to have a little talk with you all to myself."

There was something undefined, a sort of subdued excitement in his manner, that the girl felt in spite of his half-playful words. What was coming? Was it anything about Kitty? She could not guess.

They walked along the path that led past the gardens of the village houses to the banks of the little stream. It was quiet and pleasant there under the branches of the overhanging trees, a kind of "lovers' walk" where it might well be that more than once the old sweet story had been told to willing ears. Had not Margaret herself certain memories connected with the spot? She could find nothing to say, but waited for her companion to speak.

He found her a seat on the trunk of a fallen tree and sat down beside her.

"I will not keep you in suspense," he said gently. "My story is not long to tell. I hope it will not surprise you greatly. I have been with your mother this afternoon and have told it to her first. I have asked her to be my wife."

"Mamma—" Margaret's intense astonishment could find no other utterance. The hot blood rushed to her cheeks, the world seemed turning upside down. But Mr. Archer remained quiet and self-possessed.

"Yes," he said, "and it is her wish that I should tell you. We have both had our youthful dream, the romance that does not return to any of us. We do not expect to recall it. But I think we can be happy together. Margaret, it is much to two old people that they share the same memories and associations."

The wistfulness in his tone went to her heart, and she tried to recover herself, but only succeeded in saying, "I did not think—"

and then she began to cry.

"Shall I tell you what she said? That she

could take no step which could possibly make any alteration in the love and confidence which have always existed between her and her children. It is my own feeling. Not to break up the happy home life I have found so pleasant, but to share it, perhaps to lighten some of its cares, has been my wish. I found it so sweet that it was hard to tear myself away. I went to test my own heart. I have come back knowing that there is the possibility of a happiness for me such as I have never known."

Margaret raised her head; she looked into the kind, honest eyes that were fixed on hers, and held out both her hands in full recognition of his worth.

"Dear friend," she said, "you will never come between my mother and her children. Her happiness and yours shall be ours."

He walked back with her to the gate, but left her there; and when he came in, later in the evening, it was wonderful how easily the new relation was accepted and plans for the future began to develop themselves.

It was soon settled that there was to be no long delay. Mrs. Anderson would go to San Francisco to make some necessary preparations, keep Kitty there with her, and be joined by Margaret in time for the marriage, which would take place at the house of a friend.

Mr. Archer left two days after without any suspicion of the true state of affairs getting abroad; nor was Mrs. Anderson's visit to the city supposed to have any connection with his movements.

But Kitty was not to bid adieu to Reedstown without one more mischievous prank. The time soon slipped by, and Margaret, appointing a deputy to fill her place for a few days, went away also.

To this deputy there came soon after the following note:

Dear Mr. Clark: My sister desires me to inform you that she will resume her duties on Friday.

Very truly yours,

KITTY ARCHER, nee Anderson.

What conclusion was possible except the obvious one that Kitty had married the stranger who had been staying in Reedstown? The news spread quickly through the little village and caused great scandal as a matter of course. "A man old enough to be her father!" "How could her mother allow it?" "Money must be at the bottom of it," and so forth, and so forth.

But on Thursday the stage drove up to the cottage opposite the postoffice, and out of it got Margaret and Kitty, and no one else; and the city papers arriving by the mail contained the announcement of the marriage of Thomas Archer and Mrs. Margaret Anderson.

"Dear me!" said Kitty, innocently, when questioned, "what could make any one run away with such an idea? Mr. Archer has legally adopted me so that we can all have the same name; that is the whole explanation of the mystery."

Margaret returned to her duties as postmistress. In all the discussion of plans for a trip to the East, for a winter in Honolulu or a summer in Europe, she had taken little share. There was some one else to be consulted; she knew intuitively what would be said to her in the next letter from the north:

Surely you will not ask me to wait longer, my Margaret. The log cabin is wide enough for you and me, and I am not afraid to have you share all the work and all the joy there will be for us in building our home together.

So it was that when Mr. Archer and his wife returned they found Margaret's plans somewhat at variance with theirs. But they could not object. They waited a little longer in Reedstown, and there was a wedding in the cottage before they took Kitty (wild with delight) to visit the old home in Vermont on their way to England.

"Did I not tell you," exclaimed that young lady on the last evening they all spent together—"did I not tell you, Margaret, that I would find some romance in the dull routine of the postoffice? But who could have guessed what it was to be? I think you all owe me a vote of thanks for interfering on a certain occasion with the correspondence of the postmistress at Reedstown."

No! Thank You.

Mr. Perry was an old Southern gentleman, exceedingly polite. He would go out of his way at any time to avoid offending a neighbor or a friend. One day a neighbor met him on the street with "Hello, Mr. Perry, I was just going in to take a drink. Come in and have something."

"Thank you, Mr. —, I don't care for anything," was the answer.

"But come in and take something, just for sociability's sake."

"Now, I want to be sociable, but I can't drink with you."

"All right, if you don't want to be sociable, I'll go without drinking," growled the friend, and he silently walked along in the direction in which Mr. Perry was traveling.

Presently the pair drew near a drug store, when Mr. Perry broke out with: "Mr. —, I'm not feeling at all well to-day, and I think I'll go in this drug store and get some castor oil. Won't you join me?"

"What, in a dose of castor oil?"

"Yes."

"Now, I hate the stuff," and a shiver went over the man as visible in its effects to Mr.

Perry as if the ague had seized him on the street.

"But I want you to take a glass of oil with me, just to be sociable, you know."

The friend still refused, when Mr. Perry said: "Your sociable whisky is just as distasteful to me as my sociable oil is to you. Don't you think I've as much reason to be offended as you have?" They heartily shook hands. The dialogue was circulated in Covington, and Mr. Perry was never invited to drink again.—*Cincinnati Times-Star*.

The Teacher Taught.

[Written for the RURAL PRESS by CARL.]

Do we but bend an ear to list God speak;
Each day He sends will blaze an aye-truth grand.
This, mine to-day, forced home with God's firm hand!

As you may tell some dear aged one, weak
Through many cares, whose troubled brain sees bleak
Dark shades bend down, that while to understand
Some deeds of yours she cannot now command
Clear sight, all yet is well and faith must seek
To trust the sounder mind, nor fear the end.
So whisper, God, to each blind, weary child.
Light may not sound His aim, nor judgment blend
With His, and fears may almost force us wild.
Yet He is just, and faith must apprehend
His love as vast is now as when He smiled.

The Passion of Fear.

The following excellent and practical essay by W. M. Smith appears in the *Woodland Democrat*:

Fear, or dread of evil or danger, is a passion all mankind are more or less subject to; with some, however, it exists habitually in a great degree, giving rise to disease and various unpleasant symptoms. With many persons, a sudden attack of fear causes fever, fainting, diarrhea, convulsions, mania, and even sudden death. The influence of fear varies with different persons; many become quite talkative, some very silent, and others, again, become restless, moving about from place to place constantly. Instances are recorded where violent fight has produced immediate idiocy, where the hair has been suddenly changed to a white color and even where its vitality has been destroyed so that it fell from its roots, leaving the head bald. Paleness of the countenance, a suspension of all the vital functions, tremor, a momentary paralysis of the nerves of sense, etc., are usually present among those who become suddenly affected with fear. All these effects are caused by the greater or less degrees of depression of the vital powers which invariably accompanies this passion.

During fatal epidemics, there is no doubt that more persons suffer and die from the effects of fear than would were the passion unknown. In the season of Asiatic cholera, I met many persons in whom all the symptoms of that epidemic were produced solely by the debilitating influence of fear, and have no doubt that many practitioners have met with similar instances. Persons who are undaunted in some situations may be extremely fearful in others; thus, many have a fear of remaining in the dark; some experience fear only in a thunder-storm; others have a fear of ghosts, or sailing on the water, or riding in the cars, or on horseback, etc. But these are apt to be owing to an improper education during early life, or to unpleasant mental associations.

The subjection of this passion is a very difficult task. Persons who are subject to it may, however, overcome it to a great extent by keeping a careful and constant watch upon themselves, endeavoring to cultivate a disposition to retain presence of mind under all circumstances, and to check the first manifestations of fear, and also by the exercise as much as possible of mental fortitude. These measures, aided by a correct training of the reasoning powers, will frequently subdue the passion completely even when it exists in excess.

In the education of children, parents, guardians and teachers should be extremely careful never to adopt means of punishment which will call this passion into existence; cowards are made by the tyranny of teachers and parents over the young. The truly brave seldom commit crimes, but he who calls the passion of fear into action among children is manufacturing for the country both cowards and criminals.

"CHIC" AND SLANG.—To be "chio" in conversation is an attribute much admired in either the man or woman of society. A generous sprinkling of slang is permitted to enliven the small talk of the hour, and a new phrase that is suggestive is welcomed with positive delight. The latest that falls on the ear with somewhat odd effect is "All in the soup." The expression is an elongated form of the hitherto popular "left." The unsuccessful suitor, the defeated political candidate, the "exploded" financial venture, the overturned market-basket; in short, mishaps and disappointments of all kinds are described as "All in the soup." The phrase, which is claimed to be novel, savors strongly of the old-fashioned "pickle" into which the good dames and sires of long ago used to be thrown, descriptively, in cases of discomfiture, or the "stews" by which they expressed their hot moments of anxiety.—*Table Talk*.

THE EYE.—It is said that a fatigued eye recovers last the perception of the color by which the fatigue has been induced, and first recovers the sensitiveness of the complementary color.

YOUNG HOLKS' COLUMN.

Queen Mabel.

[Written for the RURAL PRESS by MAUDE S. PRASLER.]

"Green, green are the meadows,
And blue is the sky,
And glad is the morning,
And happy am I."

Out in the fresh morning air among the sweet green grass thickly dotted with white daisies, a little girl sang this gay song.

The cottage where she lived, with her father and old grandmother, stood near by, and the dew was still on the red roses climbing over the door.

The air was sweet and the sunshine made Mabel's hair glisten like gold. Her blue eyes were full of happiness, and she envied no one.

Just then she heard a carriage rolling along the highway, and presently the Queen passed by. She had heard Mabel's song, and she sighed, saying:

"Ah! how happy and light-hearted she is—with the birds and the bees and the blossoms about her! Would that I were as free from care and pain."

But Mabel saw only the glitter and the royal splendor. All the sweet light faded out of her eyes, and she felt only envy for the grand but lonely Queen.

The day that had begun so happily held no more pleasure for her, and she went in the house away from the sweet song of the birds, and the smell of fragrant flowers.

"What a wretched place this is to live in!" she murmured. "I never noticed how plain it was before."

And as she went about her simple daily duties, she grumbled:

"Little work of this sort the Queen ever needs to do. She would never deign to ruin her soft white hands with the dirt of the kitchen."

In the afternoon she fretted over her sewing, and thought of the life of ease the Queen led.

That night she tossed on her little bed, and thought what a hard lot hers was. She could never be a queen, and she was very unhappy.

She finally fell asleep, and was sure it had been but a few minutes, when she heard the sound of wheels, and running to her window, saw the Queen's own carriage standing before the door. A footman had brought a message to her and from the Queen.

Without a word to her father, she entered the carriage and was driven away. She leaned back on the cushions with never a thought for the birds or the sunshine; she was trying to imagine she was the Queen herself.

When they reached the palace, they led her through a splendid hall, to where the Queen awaited her. The people about her looked curiously at Mabel, and she was rather frightened, at what she did not know.

The Queen stepped down from her throne, and taking Mabel by the hand, said: "Would you like to become Queen in my place, my child? I am very weary of the splendor, and would like to go and play among the birds and flowers as you were doing yesterday."

Mabel's eyes sparkled and she clasped her hands in joy.

"Remember," said the Queen, as she put off her golden crown and laid it at Mabel's feet, "remember, you can never go back."

But Mabel only smiled at the idea of ever wanting to go back to the soot and grime of their little kitchen.

The Queen said "Farewell" to her people, and though all looked regretfully after her, none followed, but all turned eagerly to Mabel, and leading her to the golden throne, put the crown on her head. It was so heavy she thought she could never wear it, but when they brought her the robes of purple and ermine she forgot the weight.

Then the people all shouted:

"Hail to thee, fair Queen Mabel!" and the cry rang in her ears whenever she went outside.

One day, when she was weary of it all, she thought of her father, and wondered if he missed his little Mabel.

"There will be no one to bring home the cows," she said, "and no one to make father's toast and cup of tea." But some new pleasure took her attention, and she only said:

Why should I worry about the cows or a bit of toast? Am I not the Queen?"

Time passed on, and each day brought new joys. All she had to do was to command and she was obeyed. She never tired of roaming through the rooms of the beautiful old palace. Whenever she went to ride, the people cheered for her, and the little children threw blossoms under her horses' feet.

One evening, however, when the palace was ablaze with light and the sound of music and dancing floated out on the air, a beggar stood looking in at the window. He clenched his hand and shook it at the merry crowd.

"See," he cried, "how they rejoice while my little ones at home are starving for bread. What right have they to be gay?"

And the people all about him took up the cry, "What right, what right have they to be gay?"

Then, seizing clubs and stones, they rushed headlong into the palace.

The courtiers, mad with terror, fled, leaving Queen Mabel all alone.

She cried in vain for help, and as the furious mob crowded nearer the throne, she threw

away her golden crown, and the heavy purple robe, and ran out of doors.

Away, away she ran, out of the city and into the green woods. Soon she saw that she was coming near her old home. How fresh and sweet the roses looked; but as she touched them, their petals drooped. She called to the little birds which used to eat out of her hand, but they would not come.

She came to the little cottage by the roadside. How cosy and home-like it looked. The old grandmother sat by the door knitting. Queen Mabel could see she dropped her stitches, and holding out her hand, she said:

"Grandmother, let me take them up for you."

"No, no, gracious lady," the old woman replied, getting up to drop a courtesy.

Just then a man in working clothes entered the door, and poor Queen Mabel cried:

"Father, don't you know me?"

But the poor man only looked puzzled and said:

"O gracious Queen! have you seen anything of our little Mabel? She strayed away from us one summer morning long years ago, and has never been heard of since."

Poor Queen Mabel burst into tears, and—awoke to find herself in her own little low-ceiled room. She sprang from her bed with a cry of joy, and as she dressed she sang her simple song:

"Green, green are the meadows,
And blue is the sky,
Glad, glad is the morning,
And happy am I."

Grass Valley, Cal.

"How It Happened."

[Written for the RURAL PRESS by E. C. L.]

The day was cold and windy; great dark clouds hung over the meadows like an immense curtain. Mother had warned me of the impending storm, and asked me, as a favor, to remain at home; but I was restless and wild to have a run down to the creek and watch the swift, rushing stream of water that came from the mountains above.

In the springtime it was there that I watched the flowers bloom and watched the birds build their nests. I had my little bough overhanging the edge of the waters, where I would swing for hours at a time reading, sketching or sewing.

When the autumn came on it was as dear to me as ever, for I knew it would not be long before the pretty red, yellow and brown leaves would drop from the branches and slowly decay on the ground. Everything would be black and deadlike in appearance—everything but the mad stream that flowed beneath, that I never tired of watching from my bough.

Was it any wonder that I longed once again to swing there and meditate?

As I rushed from the house I threw my shawl around my head and swiftly vanished from sight. Over the brow of the hill I went, scattering the dead leaves with my feet and not stopping until I swung myself, with a bound, on to the seat of the limb.

The wind moaned and whistled as it struck the branches of the trees and seemed to harmonize with the rushing sound of the stream. I did not shiver or draw my shawl around me, but heated and excited by my run from the house, I pushed and swayed the limb with all my strength, when—snap, and down—down into the stream I went. I struggled and fought with the water that was slowly but surely carrying me with it. It wasn't deep, but the swiftness of the current, and being half stunned by my fall, prevented me from gaining a footing, and I went rolling over and over in the water. I caught a glimpse of my favorite tree as I was carried around the bend of the creek, and giving one plunge, managed to get nearer to the bank, when I grabbed an overhanging limb. Every minute I expected it to give way under my weight, but it proved to be strong enough to stand it.

I climbed the bank, and wrung my skirts out, and set on the bank until I could catch my breath. I had bruised my hands, but being half frozen, I paid no attention to them.

What would mother think? My garments were wet and muddy; my hair in a mat around my face.

What would she say?

I determined to creep into my room and not be detected by any one. I managed to take a roundabout path to the house, and once there, I reached my room by a side door.

The rain was falling in great torrents now, and I gave a shudder as I pictured myself in the stream.

I looked as usual when I followed the rest to supper, but father said: "Madge, I am very sorry, but I think your favorite bough has been broken by the wind. I had occasion to pass there before dark and I noticed it. I found your shawl on the bank, so suppose you have been down there and have seen it for yourself."

I blushed crimson and only answered: "Yes, I saw it." Not saying that "I felt it."

San Francisco.

KNEW HIM TOO WELL.—At one of the cross-roads in Brazil, an idol carved from the wood of an orange tree was placed for the Indians to worship. On one occasion it was noticed that an old redman omitted to perform his act of obeisance. On being commanded to kneel he stubbornly replied: "No; I knew him when he was an orange tree."

GOOD HEALTH.

THE SCIENCE OF DIGESTION is just now being discussed in the English papers in a light quite different from the generally accepted theories in this country, as may be seen from the following which we clip from London *Iron*: The fallacy of "plain living" has long been exploded, and it has been proven that the stomach never performs its duty so effectually as when called upon to act upon a variety of food, provided, of course, that the food is well cooked. The popular opinion now is that a dinner consisting of three or four varieties of solid food is more easily digested than the meal which is confined to one sort only. The old-fashioned notion of a single joint and a simply-made pudding is pronounced to be a fruitful source of indigestion. On this subject Dr. Geo. H. Taylor says in the *Sanitary News*: "Ready digested and easily digested foods are the abomination of dietetics; they prevent normal incitation of the digestive organs, necessary for normal secretions; they encourage a false notion that nutrition can be assured without reference to expenditure or to providing any use for nutritive material, and thus are liable to cause unnatural, irregular, unmanageable increase of the unstable ingredients of the organism, which react injuriously upon the digestive secretions, especially those of the liver. The prevalent recourse to these presumably enforced methods of nutrition are, in short, a violent and abnormal reaction against the former prevalent reign of physis, depletants and so-called alteratives. These old methods actually provide modes of disposing of unused nutritive supplies, although they be morbid modes."

THE CURE FOR HEART NEURALGIA.—Angina pectoris (agony of the chest) carries off many people, one of whom, according to the newspapers, was the novelist, the Rev. E. P. Roe, who expired in one day because of its crushing anguish. Major-General George B. McClellan, according to the published reports of that time, likewise succumbed after 24 hours of uncontrollable pain. Just how these patients were treated I am unable to say, but Dr. Richardson of London, long before General McClellan's death, had received a prize of 25,000 francs from the Academy of Medicine in Paris for having discovered an almost infallible remedy for angina pectoris by the administration, in small doses of 1/100 to 1/25 of a grain, of nitro-glycerine! This discovery entitles Dr. Richardson to the never-ending gratitude of every suffering man, woman or child afflicted with angina pectoris. I know a number of persons who always carry tablets of nitro-glycerine with them, and I am equally certain that all these people, by the use of nitro-glycerine, are living in comparative comfort, who would otherwise have fallen under the insupportable torture of that form of heart neuralgia, the most dreadful of all pains.—*N. Y. Graphic*.

YELLOW-FEVER GERMS.—In our last issue mention was made of the character and appearance of the yellow-fever germs. Since then we have learned that Prof. H. J. Ditmer of the Ohio State University has succeeded in photographing the germs as found in the human tissue. His description of them is much the same as given in our last issue. We quote from the *N. Y. Sun* as follows: The bacilli present themselves in four forms: The first is a plain, dark, round mass; the second, an oval, with a dark point at each extremity; the third an oblong disk, with dark points, as in the second; and the fourth, two dark points united by a film and strikingly resembling a dumb-bell. The professor says: "Dr. Sternberg of Johns Hopkins University for a number of years has made exhaustive search for yellow-fever germs, but without success, in the tissues. During the last epidemic he made several post-mortem examinations at Decatur, Ala. Liver and kidney tissue of two persons, at least, were sent by him to Dr. Reeves for the purpose of mounting for microscopic purposes. I have several negatives, each of which is good. Some show the bacteria singly, others in masses, with the capillaries distended with them."

DANGER TO LIFE.—If there be any possible danger to life and property that cannot be overcome by man's ingenuity, it has yet to show itself. The deadly elevator has at last been rendered innocuous by means of an air cushion. If it breaks loose at the tenth story, or the fifth, it is received on this cushion so safely that no harm can be done. The *Scientific American* tells of an experiment where an elevator, weighing 2300 pounds, equipped with plate-glass mirrors and loaded with baskets of eggs and goblets, was cut loose and allowed to shoot down 80 feet. The air-cushion received the elevator with so much ease that not a drop of water was spilled or an egg broken. The pressure at the point of concussion was 60,000 pounds.

THE DIPHTHERIA MICROBE.—The *Figaro* says the professors connected with the Pasteur institute have succeeded in identifying the generative microbe in diphtheria. The discovery in a preventive form of a vaccine virus is expected.

CITY AND COUNTY BRED FOR ENDURANCE.—It is stated that during our civil war city-bred men stood long marches better, were subject to less disorders, and recovered from gun-shot wounds more readily than country-bred men.



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Pear Trees—James Waters, Watsonville, Cal.
Tree Stem Envelopes—Pacific Paper Co.
Scales—Osgood & Thompson, Birmingham, N. Y.
Dutton Grinder—Hugginmug Mfg Co., N. Y.
Windmills—Pacific Mfg. Co.
Plows—Syracuse Plow Co., Syracuse, N. Y.
Dairy Machinery, etc.—G. G. Wickson & Co.

The Week.

The all too beautiful weather continues and the weather bureau on Wednesday afternoon promises nothing but fair skies for California. As we go to press, however, the wind is blowing 60 miles an hour outside the harbor, and it is possible that some sort of a disturbance of the elements is foreboded. A good thorough soaking is eminently desirable, for the markets, which are always sensitive, are beginning to assume dry-weather values. There has been a grand area sown, and there is still time to insure a grand harvest, but such weather as we have been having, delightful as it is, does not guarantee great produce.

Delightful winter fairs, denominated citrus because of their chief feature, are in progress as we write in San Jose and San Bernardino, thriving towns in thriving neighborhoods, one in Central and the other in Southern California.

At both fairs there is a profusion of produce embowered in flowers and foliage—characteristics of the California winter. There should be more of these winter fairs. They are more delightful to read of than ice palaces.

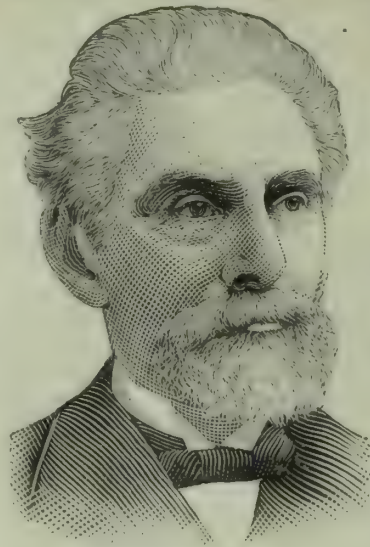
The last act in the national election was consummated on Wednesday. As we go to press the telegraph announces that in joint session of the House of Representatives and Senate the electoral votes of the different States of the Union were formally counted, and Harrison and Morton were declared elected President and Vice-President of the United States for the period of four years from March 4th next.

The Secretary of Agriculture.

One object for which the Order of Patrons of Husbandry has contended for years is accomplished, and as we write a special representative of the great agricultural interests of the country sits among the constituted advisers of the President. It is a happy consummation of an exceedingly proper movement—a movement which commended itself to intelligent, candid minds, but which of course required years of patient and persistent pushing to accomplish. Such is the history of all reforms, and those who labored so long and zealously to win for agriculture its true place in the popular mind can take new assurance in the justness of their cause and new confidence that they labored in the public interest and not in the interest of any single class. For there are industrial interests so far-reaching in their influences and so beneficial in their results that those who labor in them labor not alone for themselves, but for all mankind. Such is the agricultural interest, and the people of the United States have honored themselves as a whole as well as the farming element, by the recognition implied by calling of a Secretary of Agriculture to the President's Cabinet.

There is another consideration which pleases us, and that is that the name which will go into history as that of the first Secretary of Agriculture of the United States will be Norman J. Colman. Col. Colman, as we have frequently remarked, has distinguished himself as the most energetic and efficient Commissioner of Agriculture we have had since the Department of Agriculture was created. Never has the Department shown such a grasp of the situation and intimate acquaintance with the needs of practical agriculture as during Mr. Colman's administration. It has commanded respect from the people and support from advanced thinkers and investigators. Instead of the butt of ridicule and target of obloquy which was the position of the Department a decade ago, it has, during the last few years, commanded honor and esteem. This has, of course, been in part due to the force shown by the Grange and other agricultural bodies in demanding the elevation of the Department, for the work of their representatives in Washington has shown deep and wide power from the very beginning. But it is also a fact that the reform just accomplished would have been more difficult and have required longer time, had a weaker and less wise man than Mr. Colman held the Commissionership while the movement was in progress. Being thoroughly allied with the Grange, and at the same time showing forth by his daily work the importance of the interest which called for recognition, Mr. Colman's incumbency of the Commissionership was of much aid toward the desired end. These facts give us satisfaction with the choice of President Cleveland in inviting Mr. Colman to a place in his Cabinet.

Although we paid our respects to the new Agricultural Commissioner in 1885 and spoke of the chief facts of his history, the place he now occupies before the country warrants a brief reference to them and the reproduction of his portrait, which was the best we could secure at the time. Norman J. Colman was born at Richfield Springs, N. Y., in 1827. He was a teacher in early life, studied law, and at last settled at New Albany, Ind. While there he was the business partner of Hon. M. C. Kerr, who afterward became Speaker of the United States House of Representatives. About six years before the war broke out, Mr. Colman removed to Missouri, where he bought the *Valley Farmer* in St. Louis and changed its name to *Colman's Rural World*. It is still published, and is authority on farm and gar-



Hon. Norman J. Colman.

den matters throughout the Southwest. Mr. Colman is a man of mark in Missouri. He has been for several years president of the State Press Association. During the war he was a Union man and Lieutenant-Colonel of a militia regiment. He has been a member of the Legislature and Lieutenant-Governor of Missouri. He was the originator of the State Board of Agriculture and the founder of the Missouri Horticulture Society. He was appointed Commissioner of Agriculture in March, 1885.

We are sorry Mr. Colman's tenure of a Cabinet position will be short, for the political earthquake of March 4th will throw him from his seat along with the others of the Cleveland administration. But the fact is accomplished; the new chair in the President's Cabinet has come to stay. It will be perfectly easy for President Harrison to fill it acceptably to himself and to the country. The country is full of wise, honest and broad-minded farmers, and one of them should hold the place. Already three distinguished Grangers have been prominently mentioned for the place and endorsed by the State Granges of their respective States, viz.: Ex-Gov. Robie of Maine, J. H. Brigham of Ohio, now Master of the National Grange, and J. J. Woodman of Michigan, who was for six years at the head of the National Grange. With such fit material available, and others of like ability and loyalty to the agricultural interest to choose from, President Harrison need not err in his selection.

Bovine Tuberculosis.

The prevalence of this disease, and the imminent danger of its communication from bovine to human species, were forcibly commented upon in the *RURAL* some time ago. It seems that the city veterinary inspector, Dr. Egan, is destroying many consumptive cows. He recently condemned 11 cattle out of a band of 17 which came from San Mateo county. This makes upward of 40 which have been seized since the beginning of the year. They were all suffering from tuberculosis, and the doctor is of the opinion that the dairies are making a wholesale endeavor to run the chances of avoiding the vigilance of himself and his assistants.

It seems that a question has arisen as to the ownership of the carcasses of the condemned cattle. Charles Alpers, the contractor for the removal of dead animals, claims the carcasses of all cattle which may be condemned and killed. Their owner, however, disputes the demand. City and County Attorney Flournoy will decide the question. We should think the official collector of dead dogs, etc., could as well claim the flesh of animals slaughtered in Butchertown. Of course, if the owner should try to sell the flesh as food he should be arrested, but that is the work of the meat inspector, not of the dead-dog man.

A HIGH-JOINT COMMISSION.—The telegraph announces that Governor Humphry of Kansas has selected St. Louis as the place and March 12th as the time for holding the Interstate Convention to investigate the alleged beef and pork trust. The convention will be composed of joint committees from the Legislatures of Kansas, Nebraska, Missouri, Ohio, Indiana, Illinois, Wisconsin, Michigan, Minnesota, Arkansas, Texas, Colorado, New Mexico, Arizona and

Wyoming. The Governor of Pennsylvania has expressed a desire to have that State represented, although Pennsylvania was not invited to join the movement.

A Fine Japanese Orange.

We give our first page this week to an attractive engraving of a variety of orange which is now being largely planted in this State, and so far as can be now foreseen promises to be a well-adapted and profitable fruit. It is the Onshiu or (as Prof. Van Deman, the Government Pomologist, decides it should be called) the Satsuma orange. Our engraving is drawn from photographs taken of the actual fruit-bearing branches for Mr. H. E. Amore, of the Japanese Tree-Importing Company, during his last summer in Japan. Mr. Amore has done much to distribute this fruit in California, and has made considerable plantations of it in joint interest with land-owners, thus showing his belief in the fruit as a thing to plant as well as a thing to sell.

To show that this variety is worthy the attention of orange-planters, we quote below the results of investigation made by Prof. Van Deman, as printed in the Report of the Department of Agriculture for 1887:

Satsuma.

From the best authority I have at command, this variety came from Japan to the United States about 1876. It has been grown in Florida since that time and is there known as the hardest of all oranges. It is named after the province of Satsuma, in Japan, where it is largely grown.

At a later date it was brought to California. Recently thousands of trees of this variety have been imported from Japan by several firms in California under the name Unshiu (or as some have it, Onshiu, to better indicate the pronunciation), which may be a common name for it in Japan. But as Satsuma has been applied to it in the United States for many years previous to these later importations, it seems best to give the last name the preference. Having examined and eaten the fruit sent directly to this office from Japan, that imported and sold in California, and having also gathered specimens with my own hands from the trees in that State under the name Unshiu, and also having received it from many places in Florida under the name Satsuma, I am fully convinced that all these samples were of the same variety.

The tree is described by my Japanese correspondents as spreading and dwarfish or even bushy in habit, very productive, and with broad leaves like ordinary oranges. This accords with what I have seen in California and what is reported to me from Florida. It is of the class to which the title "mandarin" is applied, because of its small size, flat shape, and very loose skin, which are characteristics of that class.

Size, small to medium, two to three inches; shape, flat, a little pointed next the stem; color, bright orange; skin, rough, wrinkled next the stem, very loose and easily separated from the flesh; core, almost none, but instead a cavity often three-eighths inch in diameter in center; seeds, almost wanting; flesh, orange color, darker than the skin, not so juicy as some; flavor, very sweet, rich, very aromatic, peculiar; quality, very good; season, early.

Recognized Value of the Variety in Japan.

Well-informed Americans who have resided in Japan speak very forcibly of the value of the Onshiu orange. Prof. C. C. Georgeson of the Imperial College of Agriculture at Tokio, wrote to the *Orchard and Garden*, July, 1888, as follows:

"The Unshiu is perhaps the finest variety of the orange in existence. It is *par excellence* the queen of oranges in Japan, and it needs only to be known to be appreciated in America." Prof. Georgeson's description of the fruit agrees closely with that by Prof. Van Deman given above. He adds: "All other varieties meet with slow sale when they come in competition with fine Unshiu oranges."

In January, 1889, M. T. Georgeson wrote from Tokio to the same journal as follows: "The Japanese oranges are as different from our idea of an orange as they can well be, separating from the peel almost as easily as a grape, dividing into sections at the slightest pull, each section like a separate fruit, dissolving its pieces into your mouth with a flavor of cherries, leaving no pulp behind, very good, excellently good they are. They, the latest of her fruits, add the crown of excellency to the already overflowing cornucopia of this 'Beautiful Land of the Sunrise.'"

These few facts will add increased interest to the engraving, of which the most striking feature is of course the great prolificness of the tree, the splendid fruit hanging nearly as closely as it can stick upon the branches.

Artesian Wells.

In the PRESS of Feb. 2d was published an article on "The Requisite and Qualifying Conditions of Artesian Wells." There are other features connected with this interesting subject, not then mentioned, and which we shall now endeavor to place before our readers in a brief form.

Distribution of Wells.

In the employment of several wells their distribution is a matter of some consequence. The normal direction of flow, when it is once set up, by virtue of the opening of an avenue of discharge, is along a line drawn from the outcropping edge of the bed down its slope to the wells. Now, it is clear that if several wells are arranged along this line, the first one will be better placed than those which stand in its lee. These will be, indeed, measurably supplied by lateral flowage under the law of equal pressures, but less direct and freely. If the wells are disposed in a cluster, those on the exterior will partially cut off the supply of the interior wells. A more fortunate disposition than either of these would be an arrangement in a line at right angles to the direction of flow.

A still more advantageous arrangement, subject to local modification, would be to dispose the wells in a curved line, convex toward the collecting tract, for when the draft of the wells has made itself felt upon the sheet of water flowing most directly from the collecting belt to them, the higher pressure which the flanking portions still suffer will cause a lateral inflow, and the curved disposal of the wells will be more favorable for receiving the ingathering currents than a rectilinear arrangement, being more nearly normal to the resultant pressure and flowage.

In respect to the degree of separation of the wells, it is obvious that so far as the mere question of the greatest reception is concerned, the farther they are apart the better, for they will affect each other less; but, of course, practical considerations put a limit to their dispersion.

Figs. 1 and 2 exhibit tabular sections of strata, showing disadvantageous arrangement of wells. Figs. 3 and 4 are tabular sections, showing proper and advantageous arrangement of wells.

Control of Flow.

It is clear, upon consideration, that perfect control may be obtained by putting down a tube to the densest portion of the upper confining bed, if, by some device, the space surrounding it may be closed up so that no water can rise outside of the tube. Formerly this was done by a very simple and ingenious device known as the seed-bag, shown in Fig. 5. A long, stout leather bag is made in the form of a cylinder, open at both ends, and just the size of the well-bore. This is slipped on the lower end of the pipe, and the bottom of the bag securely fastened about the tube by wrapping it with marline. A thimble just above the tie will aid in preventing slipping. It is then filled with dried flaxseed and the upper end likewise closed around the tube. When thus adjusted it is lowered into the well to the point determined upon, and supported there until the seeds swell by absorbing water. This enlarges the bag so as to fit the bore tightly and shut off all water from rising outside the pipe, and so all is compelled to ascend through the tube to the surface, or at least as high as the pressure is competent to force it.

Fig. 5 shows the seed-bag; *a* is the delivery tube leading to the surface of the well and terminating below the seed-bag; *c* is a leather bag filled with dry flaxseed; *b*, marline wrappings to secure the end of the seed bag.

A better and more convenient, but more expensive, packing takes advantage of the expansion of the rubber disks when pressed together, instead of the swelling of flaxseed. A series of thick, washer-like rings of rubber are fitted about a section of pipe, so adjusted between iron disks that, after being put down, they can be screwed together, and so caused to expand laterally and completely fill the bore.

The construction of the parts and their adjustment are indicated in the accompanying figures (6 and 7), which illustrate one of the forms in use.

In Fig. 6 the rubber packing is shown apart: *a*, section of delivery tube extending to the surface; *b*, a large thimble into which *k* screws; *c*, an iron washer; *d*, a set of rubber disks fitting on *k* between *b* and *d*; *k*, a section of pipe on which is turned a long screw, fitting in the thimble *b*; *d*, a disk forming the head of the screw *k*; *h*, a section of pipe extending about two feet below the packing; *i*, a spring to press against the walls and hold the pipe *h*, while the section *a* and thimble *b* are screwed upon *k*.

Fig. 7 is the rubber packing shown screwed together as it is in the well.

In a form employed in the oil regions the expansion of the rubber disks, or single cylindrical one, is accomplished by pressing a conical hollow wedge between the pipe and the rings, thus forcing them out against the walls of the well.

In this case the packing is supported by a perforated tube, an "anchor," reaching the bottom

of the well. As the packing in an artesian well is often located near the top, the necessity for support from below excludes this form in most cases.

Detection of Flow.

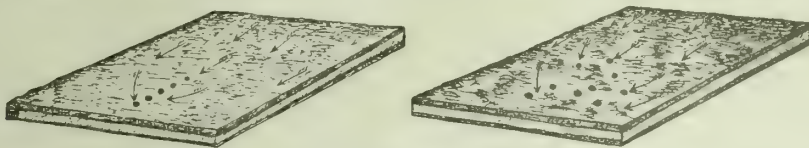
It has been remarked that the water may rise from the bottom to some higher portion of the well, and there find escape by passing off laterally through the upper strata. In absence of control the water does not always rise and overflow. It is a matter of some practical moment, therefore, to know when a stream is struck which may yield a flow at the surface when put under proper control. Such a stream usually discovers itself by a rise of water in the well, but this is not always the case. It is ordinarily desirable to test the capacity of any stratum which gives any suitable indication before sinking to a lower one.

Negative and False Tests.

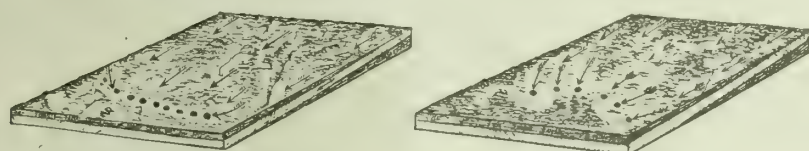
1. It is possible, in perfect honesty, to make both a negative and false test. Suppose that two porous beds *A* and *B* (Fig. 8 showing a

ing the bed *A* unable to dispose of the entire flow. In this case there would be a rise of water in the tube, and, possibly, a flow. The mischievousness of a test of this sort lies in the fact that it appears to be a true test, because it shows some result, while in reality it is false and misleading. The true test in this case can only be made by placing the packing between the porous beds *A* and *B*.

2. Take another instance where two porous beds, as *A* and *B* (Fig. 9—a partial and misleading test), have been traversed. Let the packing be placed between these. Then (1), if *A* equals *B* in productive capacity, water will stand at the same height within and without the test-pipe if there is no leakage in the upper beds. (2) If the failure to flow was due to such leakage, then a flow will result from *B*, but the additional flow which might be secured from *A* is lost (see figure). (3) If *A* has a greater head than *B*, and if there is no loss above, the water in the test-pipe will actually be lower than that outside, as illustrated in Fig. 10. This may be said to be an inverted



Figs. 1 and 2.—Tabular Sections of Strata, Showing Disadvantageous Arrangements of Wells.



Figs. 3 and 4.—Tabular Sections of Strata, Showing Advantageous Arrangements of Wells.

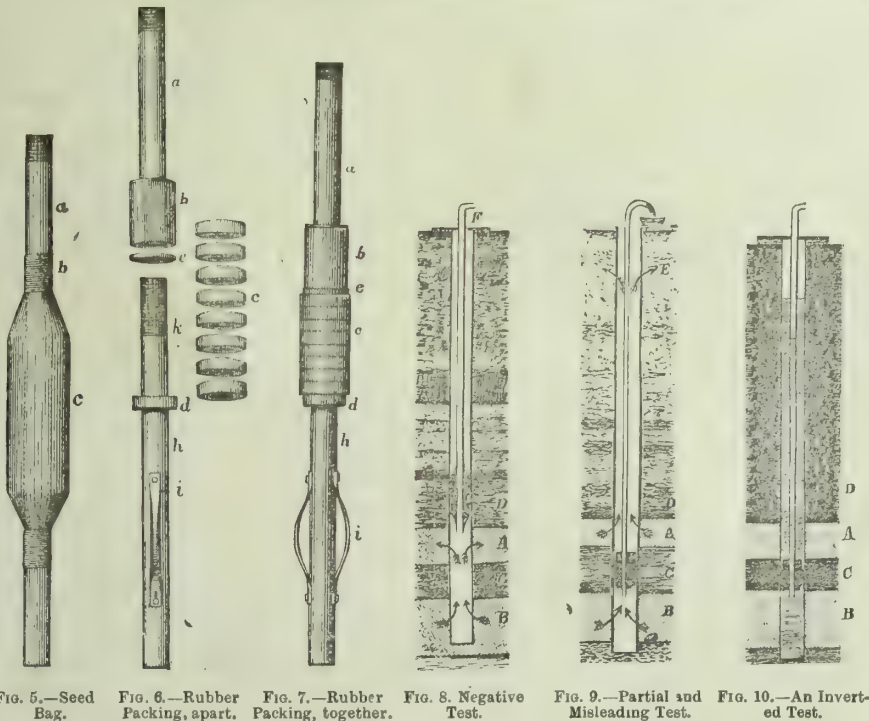


Fig. 5.—Seed Bag. Fig. 6.—Rubber Packing, apart. Fig. 7.—Rubber Packing, together. Fig. 8.—Negative Test. Fig. 9.—Partial and Misleading Test. Fig. 10.—An Inverted Test.

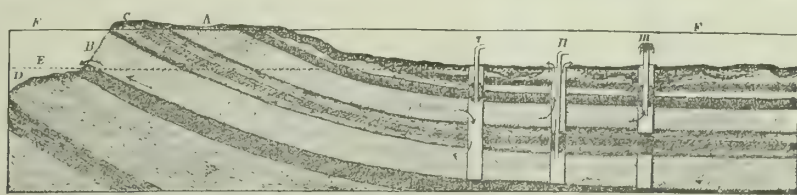


Fig. 11.—Section of Strata and Three Wells, Showing One Correct and Two Erroneous Tests.

negative test), separated by an impervious layer, are traversed, and the testing of the first has been neglected, either because it failed to give encouraging indications or for other reasons. It is now desired to test these. Suppose the seed-bag or rubber packing be placed above the upper one. Now, if both bear a water level equally high, the test will be made, and the result will indicate their combined capacity; or if both heads are at least as high as the surface at the well, the test may be accepted. But suppose that the bed *A* has been cut into by erosion, or been reached by crevices, or is otherwise defective, while the other, *B*, remains intact and bears an elevated fountain-head. Under these conditions the water may flow from *B* through the bore into *A*, and escape laterally through it, as illustrated in the figure. Now, in this case the result may be simply negative or positively false and misleading. If the lateral leakage through the stratum *A* effectually disposed of the flow from *B*, and there was no leakage in the upper portion of the well, the water in the test tube would stand during the test at essentially the same height as before, and the result would be negative, failing to indicate a possibility that really existed. If, on the other hand, there was lateral leakage through the upper strata as well as through *A*, neither alone being quite competent to dispose of the flow from *B*, then the introduction of the test pipe would cut off the upper leakage, leav-

ing the bed *A* unable to dispose of the entire flow. In this case there would be a rise of water in the tube, and, possibly, a flow. The mischievousness of a test of this sort lies in the fact that it appears to be a true test, because it shows some result, while in reality it is false and misleading. The true test in this case can only be made by placing the packing between the porous beds *A* and *B*.

Take another instance, as in Fig. 11. This is a section of strata and three wells, showing one correct and two erroneous tests. These wells are assumed to be independent of each other, and are placed together on the diagram merely for convenience. In this out let *A* and *B* represent porous beds (Fig. 11), the lower of which is so conditioned as to drain the upper one by virtue of a lower outcrop. (1) First, if the drainage loss below is not complete, and if the packing is placed above *A*, as shown in Fig. 11, the result will be negative, if there is no leakage in the upper strata. (2) Should there be considerable loss there, it will be cut off by the tube and packing, and some rise in the tube will be the result in most cases. In either instance the result is misleading, particularly in the last, because the small rise of the water is

apt to allay any suspicion as to the effectiveness of the test. The real fact, however, remains that the flow from the productive strata is mainly lost below. (3) Suppose that the packing is located between *A* and *B*, as in Fig. 11, it will then shut off the flow from *A*, while that in *B*, because of a larger outlet, will fail to flow. Now, if there is opportunity for lateral leakage in the upper strata, the water from *A* will rise in the well outside of the test-pipe and pass off into these open upper beds. (4) But if no such opportunity is afforded, it may rise to the surface and overflow outside of the test-pipe, while the water within the test-pipe will probably be found to be lower than before the test was made.

The proper method of testing wells known or suspected to present these conditions is to sink a simple bag of seed or other obstruction to a point in the impervious stratum between *A* and *B*, which, when it tightens in its place, will shut off all leakage in the upper strata, and the full capacity of the water-bed *A* will be tested.

QUERIES AND REPLIES.

Rabbit-Proof Fences.

EDITORS PRESS:—We are quite interested in the valuable article on wire fencing against rabbits in your last issue. We are about building a rabbit-proof fence around a good deal of land, and are glad to avail ourselves of "Miramonte's" experience; but he does not give the width of the wire netting used. We had calculated on 2½ feet width, but from his remarks think, perhaps, two feet is all that is necessary, with the barbed wire at the top and bottom. We think that a valuable addition, and looping the netting occasionally to the barbed wire would add much to the strength of the fence. Will your correspondent kindly give the benefit of his experience about the proper width of the netting to use, and oblige us and many others.—I. H. FOUNTAIN, Riverside, Feb. 9, 1889.

EDITORS PRESS:—Replying to Mr. Fountain's favor of Feb. 9th, would say that the netting we use is two feet wide, and we consider it wide enough.

The suggestion with reference to looping the netting to the wire, I do not consider a good one, for the reason that it is liable to bring the wire and netting too close together.

One of the main points of excellence in the fence, as described by me, was that the netting and the wire should be kept apart. If they wish to additionally strengthen the netting at the top, let them stretch a wire at the top of the netting for the especial purpose of fastening the netting to it, but by no means interfere with the outside wire. The stretch between these posts is only 12 feet, and the netting will very easily carry itself that distance if properly put up. Anyhow, if they strengthen it with another wire, let that wire, whether plain or barbed, be placed on the same side of the posts as the netting for that purpose exclusively.—MIRAMONTE.

Bean-Growing.

EDITORS PRESS:—I would like to get some information on raising beans. Which is the best way to plant the Lima bean, in hills, drills, or broadcast; also the Navy and Mexican bean? Are poles used for the Lima bean? If so, how long ought the poles to be? What would be the best season to plant? I am located about 25 miles inland from the coast—elevation, about 2200 feet—average rainfall, 25 to 30 inches. We have considerable frost up to the last of March or first of April, after that, no frost till November or December. Will that kind of climate be favorable to bean-raising? and what kind of soil is suitable for them? Mine is a rich, sandy loam with a great deal of vegetable matter in it. I shall feel grateful to any one who will give me the desired information. Do beans need irrigating if planted on bottom land? Our last rain is usually in April, and no more till October or November.—J. PATINSON, Lamson Valley, Jamul, San Diego Co.

[We shall be very glad to hear from any reader who grows beans on the questions asked by our correspondent. Beans, considering their importance as a California crop, should be more frequently heard from.—EDS. PRESS.]

Experience With Rattleweed.

EDITORS PRESS:—In your valuable paper of Feb. 9th appears an article under the heading, "Is Rattleweed Poisonous?" In this article the readers of the RURAL are invited to give their experience with rattleweed.

I have a stock range of 1500 acres. Rattleweed was growing in places all over the range when I first came here in 1850, and has grown on it each succeeding season from that time to the present.

I have had horses on this pasture from 1850 up to the present time. For the first ten years I never saw or heard tell of a rattleweed horse—I call it crazy; I don't call it rattleweed.

My horses began going crazy. Some of my very gentlest, old, well-broken horses got so crazy they could not be led from the corral to the barn. At one time I had about 30 horses and mules too crazy for any use, except for grizzly feed.

For a period of 10 or 12 years I lost from one to a half dozen horses each year by becoming crazy. For the last eight years I have not had a single horse to go crazy, notwithstanding the same identical range with its rattleweed has been used every year; the same creek has furnished water for the range all the time since 1850.

Now, if it was rattleweed that caused my

horses to go crazy from 1860 to 1870, why is it my horses did not go crazy the first 10 years, or from 1850 to 1860? And why is it my horses have not gone crazy for the last 10 years? Plenty of rattlesnake all the time; horses ranging over it every day. I feel quite sure, and always have, that rattlesnake has nothing to do with the disease, for I believe my horses eat of it more or less every year.

The disease has always made its appearance here in the latter part of the summer and fall, when all vegetation on the stock ranges is dry.

I have never known an animal to become crazy while running on green feed, nor while being kept up and fed on hay or grain.

My opinion is that it is a disease of the brain and is incurable. I would rather find a horse of mine dead than find him crazy—for once crazy, always crazy, and at any time liable to kill or cripple whoever may be unfortunate enough to have to handle or work such a horse.

Winters. Yolo Co.

W. J. PLEASANTS.

ENTOMOLOGICAL.

Moths, Gnats and Skeeters.

With Other Important Information.

EDITORS PRESS:—I do not reside among the oak trees, but as I sometimes travel "up country" from the Pajaro river toward San Jose, San Francisco, Sacramento, and other places, I see the oak trees standing about like an irregularly planted old apple orchard; and they seem to be all old trees. In fact they are old; most of them very old. Why is this true? Do not these trees bear acorns, and is not the acorn the home of the seed of the oak tree? Do not these acorns fall to the ground, and is not this ground good for growing oaks on? If so, where are the young oak trees? Why do not the young oaks come up around the old oaks? These are several questions and it is proverbial that "one fool can ask more questions than ten wise men can answer," and yet there must be a convenient answer somewhere for all these questions.

One observer says: It is "bugs" in the acorns. She says it is two insects—a weevil and a moth. That the weevil first attacks the acorn and is followed by the moth; and I now remember to have seen in summer season about a million of yellowish-ashen colored moths flying around one medium-sized oak tree. Another citizen (which is a he) tells me he thinks it is the moth, because an oak tree, under whose branches his kitchen chimney sends up its nearly constant smoke, has young oak trees sprouting up around it every year, and he thinks that we are to argue from that—that the smoke keeps the moth out of the acorns of the tree.

What do you think about "dat ar"? One man don't take to the moth notion, and says it was the firing of the grass in autumn that isolated the old trees; but then there are many oak groves where no fire has run for the last 30 years and yet there are no young oaks in those groves; therefore, I can hardly accept the fire theory. And suppose there should be an occasional young oak, that does not account for what "went with" the other millions of oak-tree seeds in the acorns. I rather incline to think it must be the insects. And if so, is it not wonderful that so small and weak a thing as a moth should set metes and bounds to the growing of the giant oak? Verily, verily, I say unto you, "bugs" is wonderful. If I were inclined to be scriptural I should quote: "How shall the weak things of this world confound the great?" And this is not a question by the scriptural author, but an exclamation of wonder at the fact that such is the power of weak things.

From the earliest that we read of the Rocky mountains—called by Captains Lewis and Clarke, in 1804-5, the Rock mountains—the buffalo or bison seldom, if ever, crossed to the west of those mountains, albeit there is abundance of good buffalo feed between the Rockies and the Sierras. Lewis and Clarke tell us that the Shoshone Indians of what is now Eastern Idaho and West Montana were compelled, at the risk of being scalped, to cross the mountains for buffalo meat or starve to death; that was in A. D. 1805. The buffalo did not then cross the Rockies nor ever since. Is that beast afraid of a mountain? No. I have walked in his ancient trails where he used to cross the mountains in Virginia. In fact, the National road from the Atlantic seaboard to the Ohio river, practically followed the old buffalo trails across the mountains. What then was it that kept the buffalo to eastward of the Rocky mountains? I answer: "Gnats and skeeters." The nearer you approach westward toward those mountains the more numerous become the alkali flats with their accompanying little sandhills. In these sandhills breed myriads of almost microscopically small black gnats with silky white wings. These gnats, though small, are powerful—very powerful—and they are "pizen" to a buffalo. They get in among his long hair and set him "plumb crazy." And I assume, from some actual observation, the depressed places on the "plains across," commonly known as "buffalo wallows," will be found most numerous near the alkali country, or also near streams where mosquitoes abound.

Now, when one reflects on the vast herds of innumerable buffalo seen by Lewis and Clarke, and so recorded, 84 years ago, is it not wonderful that the route of the yearly journeyings to and fro, north and south, of these vast herds, should be directed by a miserable little gnat? There is a gnat called the "buffalo gnat," but I

do not think it is the same as the "alkali gnat" nor quite so venomous.

Let us take note of what a large contract the gnats once had in the buffalo business. The History of the Expedition of Capts. Lewis and Clarke says, under date of July 11, 1806: "They" (the buffalo) "at this season, are belching in every direction, so as to form an almost continual roar, which at first alarmed our horses, who, being from the west of the mountains, are unused to the noise and appearance of these animals." The expedition was then on its way home to St. Louis from the Pacific Coast, and these buffalo were seen on the headwaters of the Missouri river.

Again, "Saturday, July 31, 1806, during the whole night the buffalo were prowling about the camp and excited much alarm lest in crossing the river (Upper Missouri) they tread on the boats and split them to pieces."

"Sunday, August 1st." * * * The buffalo now appear in vast numbers. Such was the multitude of these animals, that although the river, including an island over which they passed, was a mile in length, they stretched, as thick as they could swim, completely from one side to the other, and the party (of the expedition) was obliged to stop for an hour." The river at that point, before it is split by the island, is one mile wide, so that there was a column of solid buffalo beef more than a mile square succeeding itself every minute for an hour. That scene must have meant meat.

Again, says this history, "August 29, 1806 (near the mouth of White river, now Lyman county, Dakota.) * * * These last animals are so numerous that from an eminence we discovered more than we had seen at one time; and if it be not impossible to calculate the moving multitude which darkens the whole plain, we are convinced that 20,000 would be no exaggerated number."

[NOTE.—These are but a few of the herds mentioned by Lewis and Clarke in the years A. D. 1805-6, the history of the expedition of many herds numbering from hundreds to thousands in each, and to-day, January 29, A. D. 1889, the American bison is extinct. Gone, gone, gone!]

Now about the gnats and skeeters. A mosquito is bad enough, but not so bad as the gnats of the alkali plains. You can scarcely see those gnats and you cannot feel the biting in their first work on you, when they are biting, but in a few hours afterward the external skin about your head, ears, eyebrows and whiskers becomes sore and irritable—you are tempted to rub or scratch, and the external layers of the skin peel off, to the red, in a thin, angry blister. Into this blister the gnat works daily, aided and abetted by his cousin, the mosquito, unless you tie up your head in a veil of very fine meshes or dope it with rank bacon grease; goose grease tinged with kerosene is good enough.

Lewis and Clarke call these gnats by different names, frequently denominating them "eye-gnats," and I assume that this name is given because the earlier noticeable work of the gnat to a "tenderfoot" is seen just in and below the eyebrows. But the "Expedition" does not speak—that is, not seriously—about gnats until it gets into the alkaline country along the upper portions of the Missouri river. Of course all along this river and its tributaries, when the wind and weather will permit, countless millions of mosquitoes are not exactly like angels on the wing. The mosquito, however, does not go very far out upon the treeless, naked, breezy plain, away from shade and water; but the gnat is found wherever alkali abounds, and that is nearly all along the more immediate eastern slope of the Rocky mountains. From the Pacific surf to the summit of the Rockies—some 600 miles—the "Expedition" records no complaint about gnats or mosquitoes, albeit they journeyed on the waters of the Columbia river in canoes most all the way; but just so soon as they turn the summit and start down the eastern slope, the complaints begin.

At a distance easterly of nine miles down from the most easterly summit they camp for the night, and make this entry in the journal of travel on the 7th of July, 1806: "We procured some beaver, and this morning saw some signs and tracks of buffalo, from which it seems that those animals do sometimes penetrate to a short distance within the mountains." [The italic business is mine.]

Now let us notice from this history how troublesome the gnats and mosquitoes were to the voyagers. On the way out there is constant cry about these insects, particularly the mosquitoes, as the party voyaged by water. Above the great Falls of the Missouri—now in Choteau county, Montana—July 13, 1805, * * * the mosquitoes and gnats persecute us as violently as below, so that we can get no sleep unless defended by biers (bars), "with which we are all provided." And thus it continued to the fountain-head of the Missouri; at which point, by the way, one of the men employed by the expedition, putting a foot on each bank of the little "spring branch," took off his coonskin cap and enthusiastically exclaimed: "Thank God, I've lived to straddle the Missouri river."

But it was on the return trip the insects made monstrous manifestations. At the Missouri Falls, July 15, 1806, * * * "We are now troubled with another enemy, not quite so dangerous as the grizzly bear, though even more disagreeable; these are the mosquitoes, who now infest us in such myriads that

we frequently get them into our throats when breathing, and our dog even howls at the torture they occasion."

At the mouth of the Yellowstone river—now Gallatin county, Montana—in camp "Aug. 4, 1806. The camp became absolutely uninhabitable in consequence of the multitude of mosquitoes; the men could not work in preparing skins for clothing, nor hunt in the timbered low-grounds."

"Aug. 5th, as they proceeded. On one occasion Captain Clarke went on shore and ascended a hill after one of the big horns; but the mosquitoes were in such multitudes that he could not keep them from the barrel of his rifle long enough to take aim."

The quotations are not taken from random notes of individual travelers, but from the archives of the United States Government, sanctioned and sanctified by being indorsed by the sacred name of Thomas Jefferson, President.

Who would want to be a buffalo and take the risk of going any further west in such a country?

Now, if I have not made a case in favor of the power of gnats and skeeters, let me come back for a moment to the oak trees and the moths. If it shall be decided that the moths are chargeable with the failure of growth in California acorns, then come the questions:

"When—at what period of time did these moths become able to do so? Where did the moths come from, and who brought them; or, with whom did they come?" For there must have been a point of time when these old scattering oaks of California were in the acorn, for is it not written, "Large oaks from little acorns grow?"

Can RURAL readers throw some light on this oak-tree business?

I have no hesitation in attributing great powers to insects. Livingston, the African traveler, informs us that he could not take his horses and cow-cattle into the interior of Southern-Central Africa because a fly, the tsetse, bit them to death. And I know from much reading and some earnest experience that a few "bugs" are laboring night and day to get up a "fruit trust," and to control the horticulture, viticulture, citriculture and several other cultures in California.

There is much to be learned from insects even by capitalists, monopolists, and trust-mongers, or by the lounging, non-laboring, never-sweats of the labor howlers. Finally, brethren, let us all piously remember that the Good Book says in one of its entomological verses:

"Go to the ant, thou sluggard."

Yours largely,

J. W. GALLY.

Watsonville. Jan. 29, 1889

TIMBER FRAUDS CASES IN THE UNITED STATES SUPREME COURT.—Washington dispatches state that on the 4th instant the Supreme Court set aside the order denying the motion to advance the cases of the United States against Geo. H. Perrin, M. F. Riley and John D. Hall, and assigned the cases for hearing the third Monday in March. These cases were appealed from the Circuit Court for the District of California on a certificate of that court. The reasons urged by the Attorney-General for an advancement are: 1st, That in certain localities of the United States a large number of cases have arisen wherein fraudulent conspiracies were entered into, in which parties concerned are alleged to have conspired to obtain contracts for the surveying of public lands; that without making any actual survey of lands according to law, they made up false, fictitious and fraudulent pay vouchers and received money thereon from the United States. 2d.—Prosecutions were instituted against some of the alleged conspirators, and the three cases of this class are now pending on the decision or opinions in this court involving the same general character of questions. 3d.—That 23 civil suits have been brought against parties to such conspiracies, and among others against defendants in this indictment, and the court wherein civil suits are pending declines to try the civil cases until this and other like criminal cases shall have been disposed of. 4th.—That the amount claimed by the Government in this class of civil cases now pending amounts in the aggregate to \$564,247.20. 5th.—That there is reason to believe that if the trial of cases be delayed, much of the evidence on which the Government relies will be lost.

SOUND OLD TIMBER.—The Santa Rosa Republican says that out in the redwoods on Russian river, where they are clearing off ground lately logged over by one of the sawmills to sow it in alfalfa, many trunks of redwood trees are found covered over by the soil washed from the hills since they were prostrated. The length of time since some of the trees fell, as well as the imperishable nature of the timber, may be guessed approximately from the following statement, which is by no means exceptional: In plowing the surface, the top of a log more than 100 feet in length and ranging from 4 to 6 feet in diameter free of the bark, was found horizontally under the center of a huge redwood stump which must have grown astride of it after the other was prostrated—how long after it fell of course it is impossible to say. It may have been rooted in the decaying bark, or in the soil covering the fallen tree, hundreds of years afterward. One thing is sure, the log in the ground is yet sound, though lying there over 400 years while the other tree grew on it, as proved by the rings to be counted in the stump.

From Humboldt County.

EDITORS PRESS:—I have looked in vain for several months for some correspondent to enlighten the outside world, or, at least, that portion of it who read the RURAL, in regard to what is being done in this, one of the most fertile and productive portions of the State.

Humboldt, at the last State Fair, was awarded the third prize in counties for her exhibit, but she labored under greater disadvantages than any other represented at that time, by reason of her lack of facilities for transporting her articles so great a distance, thus subjecting them to many chances for damage and decay. One of the extreme northern counties, and shut off from communication with the world at large except by water, or a long and tedious overland route, and with but a few miles of railroad within her limits, she has no facilities for transporting the productions of her rich soil and green mountain ranges to other than her own markets.

It is but a few years since nothing more than a few tons of potatoes and oats, or an occasional cargo of redwood lumber, found its way from the port of Eureka on Humboldt bay, then a small town, but at present a city of over 8000 inhabitants, whose streets and wharves are bustling with life and activity. A new era has dawned upon her; the people have awakened from their lethargy, and late developments have proved that there is scarcely anything which can be raised in other portions of the State that cannot be produced here. We have no large vineyards with which to intoxicate the world, but as fine grapes are grown upon Upper Eel river as can be found in the State. It is not within the citrus belt, but certain varieties of oranges have been raised in the same locality, while the figs and apricots cannot be excelled.

A great many olive trees have been set out this winter on the South Fork, and we have no doubt that fruit will flourish also. Of apples, plums and peaches it is needless to speak, as it is a well-known fact that the apples from this county were among the finest specimens on view at Sacramento. Owing to the great distance to transport them, the display of peaches was small, but competent judges who were present at our last county fair, and who have had good opportunities for observing, remarked that those on exhibition at that time could not be surpassed by any they had ever seen from the middle counties.

But while the interest in fruit-raising has increased very much within the last three or four years, the lack of facilities for saving and transporting it to market detracts in a great measure from the profits of the producer. During the last season I saw thousands of pounds of peaches that went to waste on that account, and the present year will probably find the same trouble in regard to the crop of prunes, as there will be several thousand trees coming into bearing next season in this vicinity, with no means at hand of utilizing them. What is needed at the present time is a cannery or fruit-drying establishment at some point in Eel River valley in the vicinity of Rohnerville or Ferndale. But it would be impossible to remark in one short letter upon the different branches of industry that are opened and accessible to all. Our dairies are weekly sending forward tons of gilt-edged butter to tickle the palates of San Francisco consumers, and the fine grades of wool from our flocks serve to keep in motion the looms of distant factories.

The Boards of Trade of Eureka and County Produce Commissioners, composed as they are of some of our wealthiest and most energetic men, are doing much to develop the resources and advance the interests of the county, and with the advent of the railroads now pointing this way, Humboldt will come rapidly to the front; while the millions lying in her forests of redwood will be brought forth to add still further to the sources of wealth within her domain.

C. L.

THE CALIFORNIA CANNED GOODS ASSOCIATION has elected the following directors for the ensuing year: Isidor Jacobs of A. Lusk & Co.; G. M. Bowman of the Golden Gate Packing Co., San Jose; E. L. Dawson of the Dawson Packing Co., San Jose; P. D. Code of Code, Efst & Co.; W. H. Wright of the San Jose Packing Co.; W. L. Locke of the Johnson-Locke Mercantile Co., and W. M. Boyson of Williams, Brown & Co. The officers are as follows: Isidor Jacobs, Pres.; G. W. Bowman, V. P.; P. D. Code, Treas.; Chas. J. King, Sec. The following committees were appointed: On Commerce, W. L. Locke, H. Jacobs and J. Kleinhaus; on Legislation and Rules, P. D. Code, A. G. Freeman and W. S. Stevens.

BEET-SUGAR FACTORIES.—The Bulletin, noting the return of Claus Spreckels from the East, says that he has reached no decision as yet regarding the establishment in the State of other beet-sugar factories similar to that at Watsonville. At Washington he urged successfully the passage in the Senate of the Sugar Bounty bill, which gives a cent a pound to all producers in the United States of cane, sorghum or beet sugar. Mr. Spreckels was accompanied on his trip by C. R. Buckland of this city.

A SCREW which is half nail is a new invention. It's holding power in white pine, they say, is 333 pounds against the 298 pounds of the present screw.

DOMESTIC ECONOMY.

Candy and Beet Sugar.

EDITORS PRESS:—Some persons here say that beet sugar will not do to use in canning fruit, as it tends to spoil the fruit. I wish that some readers of the PRESS who have had experience in this line would write it out and decide the point. To me it seems unreasonable that beet sugar should not be as good for that purpose as any other, but I am willing to let facts overrule suppositions.

I made some candy the other night out of syrup, boiling it down (which is something editors approve of), and I learned that the very best syrup, while it does not require one-quarter as long boiling as cheap molasses, does not make as good candy as the latter, though it is just as easy to work. I boiled the syrup 15 minutes only, and that was two or three minutes too long! Will some one please tell me the best way of making molasses candy out of sugar? (Don't smile; you know that is the best way of expressing it.) C. P. N.
Haywards, Cal.

STEAMED OYSTERS.—Set a covered dish where it will heat; wash and drain the oysters; put them in a shallow tin and place it in the steamer; cover and leave it over boiling water until the oysters are puffed and curled. They may be dressed at table when eaten, or butter, salt and pepper may be added in the kitchen when served in the heated dish.

COLD SLAW.—Shave off a hard white head of cabbage and season with the following dressing: One cup of cream, 1½ teaspoons of mustard, one teaspoon of salt, one teaspoon of butter, one tablespoon of sugar and yolk of one egg, beaten light. When boiled, add one cup of strong cider vinegar, stir well and pour over the cabbage.

LADY FINGERS.—One cup of sugar and one-half cup of butter; beat them together; then add one egg and beat well; add one-fourth cup of milk, in which one-half teaspoonful of soda is dissolved; a pint of flour with a teaspoonful of cream of tartar in it. Cut in strips, roll in sugar and bake in a quick oven.

CREAM PIE.—One pint of sweet milk, white of one egg and yolks of three; two tablespoonfuls of sugar, two of cornstarch; beat all together, let it cool and flavor. Make a rich crust and bake separate and fill; beat the whites of two eggs to a froth, spread over the top and set in the oven to brown.

PUMPKIN MARMALADE.—Peel and stew pumpkin thin, rub through a sieve, add to the pumpkin an equal quantity of sour apple pulp, and to six cupfuls of this mixture add three teaspoonfuls of sugar and three lemons cut very fine; stew until rich and thick, stirring constantly, then put away in jelly tumblers.

CORNMEAL PANCAKES.—One pint of fine cornmeal, four tablespoonfuls of wheat flour, one quart of milk, three eggs, pinch of salt. Mix the meal and flour with the milk, beat the eggs very light and add them. Bake on a hot griddle and serve hot with fresh butter.

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Buena Vista Rancho.

The colony tracts offered last week by Messrs. Briggs, Fergusson & Co., at auction on the Buena Vista rancho was a success. That portion unsold will be graded in price and offered at reasonable prices and liberal terms at private sale. The former owner, Mr. Hiram Corey, will now sell the stock, consisting of a choice herd of cattle, horses, and other live-stock, together with farming implements, on favorable terms, at private sale.

THE Nebraska Senate has passed a bill which provides that before any liquor license shall be granted the written consent of the owners and occupants of adjoining property shall be filed with the granting board.

MECHANICS' FAIR.—The directors of the Mechanics' Institute have decided to open the Fair this year August 27th and close October 5th.

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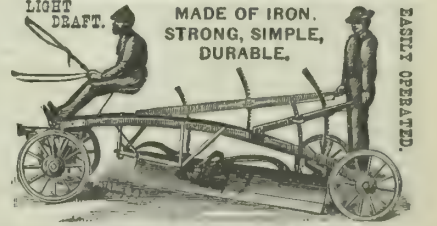
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AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

WIDENING ORCHARDS.—Oakland *Tribune*, Feb. 11: A large number of fruit trees will be planted in Alameda county this season. On the Perkins ranch, near San Lorenzo, 50 acres are being prepared for this purpose, most of which will be devoted to apricots. Near Livermore, on the Black place, 30 acres will also be devoted to apricots and 10 acres to a varied assortment. Fifty acres are being set out to almonds in Mellow valley. Many others are making preparations to extend their fruit area.

THE GUM-TREE LEAVES being exhausted on the William and Merritt tracts, the manufacturers of eucalyptus oil have removed to Haywards. They will return in about three years, when the trees have grown sufficient for another topping.

Kern.

WINTER IRRIGATION.—Bakersfield *Echo*, Feb. 7: The farmers are now giving their lands a thorough irrigation. Every year the number of those who favor winter irrigation grows larger. This year there is a new factor in the problem. By the terms of the water contract the lower owners of land are entitled to a division of the water in the river after May 1st.

Los Angeles.

POULTRY.—Orange Cor. *Times-Mirror*: Some people think chickens don't pay; they sell eggs so often and in such small quantities that they don't realize how much they get. A lady in this vicinity, who is a shrewd manager, kept account of sales and expenses last year, and found that she sold fowls, young roosters, enough to pay for the feed, and netted just \$3 per hen for her labor. Incubators for hatching chickens are much in favor, and very extensively used in this valley among poultry-raisers. These machines are of every pattern, and many that are doing good work are home-made.

Sacramento.

EDITORS PRESS:—Everything in the agricultural line is looking finely and every one in this neighborhood is at work pruning vineyards and orchards, and some are plowing, as the ground is in fine condition. The prospects for small fruits in this part of the county is very encouraging; already the dealers in the interior and north are making arrangements for their supplies of the early fruits and predict that the demand will be double that of last year. The weather is delightful, as it has been for a month. I hear that in some quarters they begin to want rain on late-sown grain, but we do not want any here for some weeks yet.—L. H. F., *Florin*, Feb. 10th.

San Benito.

EDITORS PRESS:—The weather here having changed from frosty nights to warm, damp ones, all vegetation seems to be taking a fresh start, as if striving to make up for its slow growth during the cold snap. It appears the cold weather rather than the lack of moisture has kept the grain from growing very fast, as, upon examining the fields, we find the earth damp almost to the surface. The grain now up will not suffer for rain if showers come within the next two or three weeks.... Quite a large acreage of potatoes is being planted through the valley this year, as those who have experimented in growing them find the crop a paying one.... A farmer near Hollister planted five acres in beets last season, and they averaged him \$68 an acre. Almond trees are in bloom and orchards are being set out.—A. F., *Hollister*, Feb. 10th.

San Diego.

GRAIN OUTLOOK.—San Diego *Sun*, Feb. 7: 1,600,000 bushels of wheat and barley will be raised from the 108,800 acreage of grain in San Diego county this season. From all sides comes the encouraging report that the season is the most auspicious one for years, and splendid crops will be the reward of the farmers' industry. There are several tracts of new land which have not yet been heard from, and there is no doubt that the yield from this land will greatly increase the total. At San Jacinto it is estimated that 200,000 sacks of wheat will be the result of the harvest at that point. The average yield of wheat to the acre will be at least 15 bushels, and that of barley 25 bushels to the acre.

IMPROVING LIVE-STOCK.—Otay *Press*, Feb. 7: D. O. McCarthy of the Mesa has contracted with Colonel Saxe, the well-known importer, for three registered Berkshire pigs and a Holstein bull called "Ajax." He has also ordered a dark gray draft stallion by Duc de Chartres out of a mare by English Glory. The horse weighs 1525 pounds and stands 16½ hands high and is of the best breeding.

San Luis Obispo.

ORANGES.—S. L. O. *Tribune*, Feb. 8: We were favored yesterday with some of the oranges grown on R. R. Harris' place, three or four miles northeast of the city, which certainly could not be surpassed by any grown in California, either in appearance or flavor. Mr. Harris' home is at an elevation of about 800 feet above the sea-level, sheltered and warm, and plentifully supplied with water. Every variety of fruit thrives there admirably. Frost seems to be entirely unknown. He has had tomato-vines three years old. He has a few orange trees only, but they seem to be specially happy in their surroundings; and from

three trees seven years old he took last season nearly 1000 oranges.... Arroyo Grande *Herald*: Mr. Leedham has several trees now in bearing and covered with fruit in all its stages, from the bud to the full, ripe, juicy orange, free from bugs and blemish. One tree has oranges of the Washington Navel variety that measure 13 inches in circumference.

Santa Barbara.

REPELLING FLOWER-THIEVES.—Santa Barbara *Press*, Feb. 9: A. Eldred has been bothered a good deal by strangers who enter his yard at the corner of Anapamu and De la Vina streets and pluck flowers without permission. Mr. Eldred has a fine garden and does not like dogs. To save his flowers and profanity he put out two small-pox flags last week on the side and front of his house and now sees his roses thrive and his heliotrope flourish untouched. To be sure the market men cannot be induced to deliver their orders at the house and one caller has been scared into a run by the presence of the flags, but Mr. Eldred values his flowers more than all that and the yellow signals will remain.

HORTICULTURAL TOPICS.—The February meeting of the Horticultural Society was held at Prof. H. C. Ford's studio Wednesday afternoon, there being about a dozen members present. H. C. Ford was chairman and A. A. Boyce, sec'y pro tem.... O. N. Cadwell of Carpinteria exhibited a quantity of Lima beans that had been perforated by a beetle or weevil, an insect which threatens great damage to Carpinteria's staple industry. Mr. Cadwell thought they were introduced in the "Golden Wax" bean in 1887. So far as observed, the insect attacks all kinds of beans. H. C. Ford described a recent visit to the Hollister ranch that he has made to examine the progress of the *Icerya*. He found the scale on all the citrus trees, pepper, walnut, magnolia, fig, Norfolk pine, yew, verberna, rose, oleander, etc. No absolute and available remedy has yet been discovered for this pest.... Mr. Ford exhibited a fruit and stone received from Mrs. Dr. Longshore of the "Quong Dong," or native peach of Australia.... The annual spring exhibition was discussed, and it was generally agreed to hold the Flower Fair, probably in April.

THE WALNUT ORCHARD of Col. Russell Heath is the largest in the United States, and probably in the world. Col. Heath has 75 acres of walnuts in one body, and the year before last his trees produced 75 tons of walnuts, yielding him large returns.

Solano.

EARLY BLOSSOMS.—Winters *Express*, Feb. 9: On Sunday last E. W. Hindley sent us, by E. Ireland, a bunch of almond blossoms from his Skyhigh ranch. The blossoms had been taken from trees that had been in bloom several days.... On Tuesday, F. N. Wertner, from his hillside farm in Pleasant valley, brought us two twigs cut that day from an apricot (Royal) and a peach tree, both covered with blossoms. Will this do for the first week in February?

PEACH-PITS FOR FUEL.—Vallejo *Chronicle*: It has been demonstrated in Vaca valley that peach stones will make as good a fire for household purposes as the best coal in the market. The fruit-growers, instead of throwing the pits away as heretofore, dispose of them at the rate of \$6 a ton. A sack of the stones will weigh about 80 pounds, last as long as an equal weight of coal, and give a greater intensity of heat. At many of the orchards in the valley may be seen great stacks of peach and apricot stones which will eventually find their way to S. F. and other places to be sold for fuel. The apricot stone does not burn so readily as the peach, and will not command so good a price. As soon as the owners find they have a market for the stones, a greater number of peaches will be dried than heretofore.

Sonoma.

ARTESIAN WATER.—Sonoma *Index-Tribune*, Feb. 9: Last week we mentioned the striking of an artesian well on the property of S. Schocken in the northern part of town, which gave a flow of 36,000 gallons per 24 hours. This result did not satisfy Mr. Schocken and he gave orders for the well-borers to go deeper, with the result that last Tuesday, after boring several feet below where the first flow was tapped, an immense body of water was struck at a depth less than 150 feet from the surface. The water gushes over a 6 inch pipe in torrents and flows at the rate of from 300,000 to 350,000 gallons per 24 hours. The water is clear, sparkling and cool, and for domestic purposes has no equal.

Tebama.

SUCCESSFUL STEAM-PLOWING.—Red Bluff *Sentinel*, Feb. 9: One of Daniel Bat's traction-power engines, manufactured at San Leandro, is on trial in W. W. Fennell's ranch as the motive-power to draw 12 10 inch plows. The machine was purchased by John S. Battler at a cost of \$4500 provided it is a success in plowing. We saw it in motion Monday and it appears to be a perfect piece of machinery, and there is little doubt that it will work to the entire satisfaction of the manufacturer and the purchaser. Mr. Battler has taken a contract to plow 600 acres of summer-fallow for Mr. Fennell. After one day's work with the machine and plows, he writes us that three gangs of four 10-inch plows each were attached to the machine, cutting ten feet in width, eight inches deep and leaving the soil in the best possible condition. The power, 36-horse, moved off like a thing of life, and our informant says it would

draw another gang without any perceptible strain on the machinery. The Moline gangs were used. The speed of the power is about three miles an hour, the steam gauge showing 100 pounds of steam.

Tulare.

FENCE POSTS, CHEAP.—*Della*: Many of the Tulare farmers use old railroad ties for fence posts. These they procure from the railroad company at or near the different stations. About a foot is cut off one end of the tie, and then it is split in two. The tie costs the farmer 12½ cents at the railroad. This makes his fence posts cost him 6½ cents each, as nearly every tie may be split into two good posts. This makes a cheap enough fence, and yet the railroad company realizes about as much for their ties as they pull for them, besides having the use of them for from 10 to 15 years. This is an example of thrift on both sides.

Ventura.

HONEY CROP.—EDITORS PRESS: The prospects of a good crop of honey the coming season are very dubious in this section. The "filaree," upon which bee keepers depend, largely for feed to build up their colonies in the spring, is about done flowering, and much of it is already dried up on the hillsides. This is due to unusually early fall rains and the dry weather which has followed. These same causes will bring on the sage and other bee-forage so early in the spring that the cold, foggy weather which we have at that time will prevent the secretion of much nectar, even if there should be an abundance of flowers.—R. A. HALLEY, *Piru*, Feb. 7, 1889.

Yolo.

THE GRAIN-FIELDS.—Davisville Cor. *Democrat*, Feb. 3: The farmers have all finished sowing their grain in this section of the country, and commenced to summer-fallow. The prospects at present are good for a big crop.

ARIZONA.

A GREAT DITCH.—Tucson *Citizen*: L. A. Hicks, the engineer of the Mohawk canal, reports the work on the canal progressing satisfactorily and that only ten miles remain to be furnished. The main canal will be 20 miles long, with a branch 13 miles long, making 33 miles in all. Water has already been turned into the first ten miles, and it is expected to be completed and open, ready for use, on the first day of March. Waste and division gates are now being put in. A large number of people are coming into the valley almost every day to prove up on their lands. Between now and spring a great many will move in, as everything will be in readiness for supplying abundance of water for the spring crops, and arrangements have already been made for the planting of 3000 or 4000 acres in alfalfa during the next two months. This canal will reclaim not less than 30,000 acres of land. George Norton, the superintendent of the company, is now putting out a 30 acre vineyard and will put 30 acres in olives. The weather this winter has been unusually cold in that section, but none of the young orange trees already growing have been in any way injured. The land along the canal all slopes to the south, and is a rich sedimentary deposit. The canal starts from Texas Hill, 60 miles from Yuma, running on the north side of the Gila river to a point four miles from Tarcia, on the S. P. railroad. Besides the Mohawk there is another canal being constructed on the south side of the Gila river by the South Gila Development Company, 15 miles of which is now completed. This is a St. Louis company, and they will use this canal for the purpose of raising forage and subsistence during the construction of a much larger one now being projected by them, with a view of irrigating mesa lands lying south of Texas Hill.

OREGON.

MESSRS. EDITORS:—The Chinook winds have struck Eastern Oregon, and what little snow lay on the hills is fast disappearing. The stockmen are glad to see an open winter, for last fall the range grass was very short and the majority of the cattle went into winter in rather an unusual condition, being somewhat poor. One great trouble with the farmers here is that they do not stack enough straw; being used to having abundant grass in the fall, straw was allowed to go to waste, and so, as a general thing, stock have to go on short rations, and do not have the comfort of a straw-stack during the stormy seasons. A good husbandman will provide feed for his stock, will see that all of the straw is properly stacked, and, if it is not used, can be burned or left to enhance the value of the manure-pile. Many an animal has been lost because it had to stand out on the hills without any shelter during the storms of winter. There are about 180,000 head of sheep in Umatilla county. Some few men are feeding their flocks, but the majority of flock-masters are taking their sheep through on the range grass. The best days for the large herds have passed away; the plow has turned under the sod, and in place of bunch grass there grows the golden grain. To decrease the number and increase the standard of their flocks has, for the last few years, been attracting the attention of all stockmen in Oregon. It takes no more feed to keep a graded animal than a scrub, and the returns are ten to one in favor of the graded.—W. A. S., *Helix*, Oga.

Vacaville Notes.

Drying Fruit—Rattleweed.

EDITORS PRESS:—The weather is pleasant; foggy mornings, with heavy dews at night. A few scattering buds on the almonds and apricots are beginning to blossom. The ground is getting pretty dry and we will need rain soon. People are very busy pruning, plowing and burning brush. Nearly everybody's cold has left, and there is very little sickness in the neighborhood.

Five brick buildings are going up in Vacaville as fast as men can put them up. Parties are at work near Vacaville getting ready to burn a brick-kiln.

"Fruit growers" of San Jacinto wish a few points on

Fruit-Drying.

Which I will try to give, as we dry fruit here. The length of time to dry depends upon the weather. With the mercury at from 60° to 100° through the day and no dewy nights, peaches of 2 or 2½ inches will dry in 5 to 7 days. Small peaches dry sooner, but do not dry well in wet weather (found out by experience). Board trays are better than anything else to dry on. Some say redwood will blacken the fruit, but it does not for me. Some here put the trays upon trestles two feet high. The fruit is a little cleaner than if the trays were set on the ground, but it takes two days longer to dry. If trays are scarce, set them on the ground. We never turn the fruit unless when half dry; we put the fruit from two trays on to one to save trays. There will be no need of shade for the fruit; it is handy for the man sometimes.

The fruit when out should not stand over an hour before it is put into

The Sulphur-Box.

Any kind of box will do to sulphur in, providing you can get the trays in and shut them up air-tight. We have little houses holding 40 to 60 trays. Some large dry-houses load the trays of fruit on to trucks which are run into the sulphur-houses, and when sulphured enough are run out to the drying-yard, thus saving handling. Enough sulphur should be put into an old tin pan, or what is better, an old frying-pan, to burn from two to nine hours. About a quart will be enough. We take the common sulphur such as is used on grapevines, and costing three cents per pound. A piece of sack or paper will do to light the sulphur with. There are many opinions about the time required to sulphur fruit. I notice our fruit-growers, when they speak before the societies or write for the papers, say from twenty minutes to one hour; but when they actually sulphur the fruit, it is about three hours, and many make a practice of sulphuring all night when it is handy to fill the boxes at night.

There are but two machines that I know of for

Peeling Peaches.

One costs \$10 and was pronounced a failure here. The other is a small one, costing \$1.50, and will last ten days' steady running with care. With peaches 2½ inches in size, which is as small as it will pay to pare, a fair hand can peel 100 pounds per hour. They paid 15 cents per cwt. here last summer for peeling, which was not enough. From 20 to 30 cents per cwt. was paid for cutting.

Dried fruit is pressed into boxes from 25 to 50 pounds. It is quite a knack to face a box and press the fruit and requires some machinery, so if one has a small quantity it would be better to sack it.

The boxes used here to market green fruit in are 12x18 inches inside measuring and 4, 5 and 6 inches deep, and will hold five pounds to the inch in depth. The fruit for drying should be perfectly ripe, but not soft enough to jam much. For sending to the cannery or dry-house, we use boxes that hold 60 pounds.

In regard to the rattleweed about which so much is said, there are several kinds that look so much alike the difference can be told only by comparing them together. In our vicinity the weed grows only in one pasture, and the stock there are often affected. G.

Vacaville, Feb. 9, 1889.

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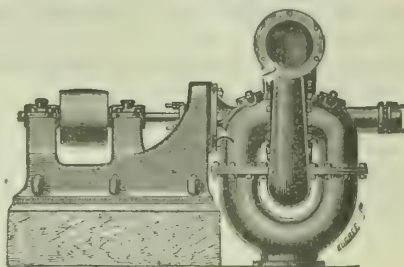
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THE IRRIGATOR.

Government Work in California.

Wm. Ham. Hall, our State Engineer, who went to Washington about a month ago, has just returned, and a *Record-Union* reporter has obtained from him some items of interest relative to his mission there.

Preliminarily, Mr. Hall desired it stated that he went East in compliance with the following letter from the director of the United States Geological Survey, received early in November last, together with telegrams which preceded it, and some subsequent correspondence:

DEPARTMENT OF THE INTERIOR,
U. S. GEOLOGICAL SURVEY,
WASHINGTON (D. C.) Nov. 3, 1888.

Mr. Wm. H. Hall, State Engineer, Sacramento, Cal.—DEAR SIR: You are probably informed through the press that Congress at its last session decided that an irrigation survey should be made of the arid lands. Your long experience and eminent service to the State of California in this field of investigation make me desire to have a conference with you in relation to the subject. I have for several weeks hoped that I could come to meet you in California, but the press of official business prevents it. Can you not come to Washington and give me the benefit of your advice?

Some weeks ago I wired you to this effect, but received no reply. I then followed it with a second telegram, which was not delivered. Still subsequently I wrote to a gentleman in San Francisco asking him to see you, to which letter I received no reply. On Thursday last I telegraphed the Governor of California, which telegram you received and to which you have replied.

If you find that you can do me the favor to come to Washington, your ordinary expenses will be paid, and I can also pay you at the rate of * * for the time you give the matter. * * I also send you orders for transportation. * * I shall be very glad to have you arrive in Washington on or about November 18th, if that date will suit your convenience. Hoping that I shall have the pleasure of meeting you, I am, with respect,

J. W. POWELL, Director.

The irrigation investigation to which reference is here made, said Mr. Hall, in reply to questioning, is one now in the first few months of its existence and is being prosecuted to ascertain, under the law, "the extent to which the arid lands of the United States may be redeemed by irrigation." It should be remembered that about two-fifths of the tillable lands in the United States require irrigation to insure any return for cultivation. The Government now has very little land left that can be farmed without irrigation, but she has several hundred millions of acres that will produce well if only it were irrigated. These arid lands cannot be disposed of to settlers, because settlers cannot cultivate them. Now, the Government has undertaken to ascertain to what extent they can be irrigated, and by what means and at what cost, and the law goes on to direct that special examination shall be made with reference to the possibilities of storing waters on a large scale. Storage sites are to be reserved and irrigable lands are to be reserved from sale until the Government can further determine what policy it will adopt in the disposal of such lands and storage sites.

The investigation was favored by President Cleveland, was strongly urged in a special communication by Secretary of the Interior Vilas, and has been committed to the Geological Survey's Bureau, of which Major J. W. Powell is the director.

Further in reply to questions, Mr. Hall said in substance: This is to be an immense work, lasting through years to come. It has been chiefly urged, as I understand it, by Representatives from Colorado, Nevada and some of the Territories, though several of the California Congressmen have been very active in its support. The estimated cost is \$4,000,000, which is in addition to an estimated amount of \$20,000,000 to complete the geological survey. This geological survey is sustained by an annual appropriation of about \$500,000, and now the House of Representatives has agreed to an additional sum of \$250,000 per year for the work, which amount will probably be raised in the Senate to \$350,000.

Reporter.—Will any of this money be expended in California, and if so, how much?

Mr. Hall.—Yes; California will ultimately get her share, in proportion to the area of arid Government lands in the State of which there seems to be any possibility of irrigation. But, as you know, there are no considerable bodies of Government irrigable lands left in this State, except it be in the northeastern counties, in the counties east of the Sierra Nevada mountains, and on the deserts south and east of the present cultivated parts of the State. The director of the surveys, Major Powell, is anxious to have California co-operate with him in this work, as Colorado proposes to do, and as other States and Territories probably will do.

Rep.—What advantage will this be to the State?

Mr. H.—It will secure to the State a much larger expenditure of the Government moneys out of the first appropriations than would otherwise be made here; it will enable the State to get the results of all the work in the State, and publish them for the benefit of her citizens, at an early day. These are two great objects. If Colorado steps forward and says to the Director of the Geological Survey, we will spend \$30,000 or \$40,000 this year on this work if you will spend an equal amount in this State, and give

us the results for prompt publication, she will probably be met on the proposition.

The Government Bureau reports are three to four years behindhand in printing at Washington, and if anything is done in California out of this first appropriation it will probably be three to four years before we see any of the results in print, unless the State takes hold of the matter and provides for helping in the work and publishing the results. The great feature of the work is to be the water supply—the storage question. That study and these surveys can be extended all over the State, and the State will help in the work, as was done in the case of the Topographical and Geological Surveys of Massachusetts, New Jersey and other Eastern States. Major Powell has by this time addressed an official communication to our Governor on the subject, and I am expected by Mr. Powell to urge the matter before the proper committees of the Legislature.

Rep.—Is this done, Mr. Hall, in your capacity as State Engineer?

Mr. H.—No, sir. As I distinctly reported to the Governor, before going East, I will not hold the office of State Engineer. You will find some plain talk on this subject in my report. The only interest I shall have in representing this matter to the Legislature will be as a Californian. Beyond that I act in the interest of the Government work under Major Powell.

Rep.—Do you mean that you are engaged in that work, and, if so, in what capacity?

Mr. H.—You are too fast in drawing conclusions. As to my relation to the Government work and standing with Major Powell, you may judge from this letter handed me by him several days after my arrival in Washington. I am now engaged in preparing a report in compliance with it.

DEPARTMENT OF THE INTERIOR,
U. S. GEOLOGICAL SURVEY,
WASHINGTON, D. C., Jan. 15, 1889

Mr. Wm. Ham. Hall, Consulting Civil Engineer, Present.—SIR: Pursuant to the purposes of the conversation we have held, I have the honor to request that you submit to me in writing an outline of your opinions on the general subject of an irrigation survey, and will specially call your attention to the following subjects:

1. The extent and character of the necessary hydraulic survey.
2. The method to be pursued in stream gauging.
3. The methods to be pursued in sediment gauging.
4. The methods to be pursued in evaporation gauging.
5. The methods to be pursued in rain gauging.
6. The methods to be employed in the selection of reservoir sites, and the conditions and limits under which these selections are to be made.
7. The methods to be pursued in the study of soils for the selection of irrigable lands.
8. The methods, conditions and limitations to be pursued and observed in the selection of irrigable lands.
9. In what way should the duty of water be determined, and to what extent should researches for this purpose be carried on?
10. What collateral investigations and reports should be made to render the work of greatest practical value to the people?

It is not desired that you confine yourself to the specific subjects mentioned above; your opinions upon every branch of the irrigation survey, and upon the work in general, are solicited. I beg to call your attention to the Senate documents handed you herewith, in which you will find an outline of the work as proposed by me, and to the conditions and limitations of the statute providing for the survey.

Your experience, observations and investigations on the subject of irrigation have been so extensive, and your publications are of such value, as to warrant the belief that you can render important service to the irrigation survey under my charge by setting forth freely and fully your opinions on the subject.

You will duly appreciate the importance of making the survey of practical advantage to the people who have or will make homes in the arid region.

Yours, with respect, J. W. POWELL, Director.

Rep.—Have you any permanent engagement on that work?

Mr. H.—It is sufficient for the present to say that other business would not now admit of my making such an engagement. I shall give all the time I can spare to it for the next few months; and you can say that I certainly will not be State Engineer after June of this year, under any circumstances. What I say and shall say in favor of the State's co-operating with the Powell work, is entirely in the interest of the State, and absolutely free from any personal motive. If the State work goes on, it will be under some one else as State Engineer. The State has much to save and much to gain in this matter, and I think that if members of the Legislature will take the trouble to look into it they will agree with me on it.

The Wright Law Criticised.

EDITORS PRESS:—I notice in yesterday's issue of your paper an article headed "New Water Laws," with editorial comments referring to the Wright bill, and a request that men who have had experience in irrigation will give their views of the question. I am no writer and am not competent to do justice to the subject of irrigation; but, having lived in Los Angeles county for 28 years, and had experience in irrigating most of that time, I will give you a few of my ideas as to the defects of the Wright law.

In the first place, in Sec. 2, providing for the formation of water districts, one general principle is disregarded, namely, this: "Don't

rob Peter to pay Paul." For instance, in case of a small community, having barely sufficient water for their land, who have perfected an irrigation system of their own, and improved their land by many years' hard labor, with fine orchards, comfortable buildings, etc., the Wright law steps in and allows the people living on the outside, if more numerous than this community, and having no other source or supply of water, to form a large, expensive irrigation district, including this small community, and force them to a division of their water, spreading it over a territory five or eight times as large. Is it not evident that, in the losses in spreading the water, less land can be irrigated with it, and that a large portion of the orchards of the community must die simply that a few trees may be raised somewhere else with the water of which the community has been robbed by this legal process? The law is lame from beginning to end, and the best thing that can be done is to repeal it and call a convention of old, experienced irrigators, three or four from each county, to frame a law, or three or four laws, if necessary, to make them applicable to the several different localities.

The Wright law provides (Sec. 18) for the assessment of all real property, which includes houses, and all other buildings and fencing, and the apportioning the water to the land-owners in the ratio of the last assessment. (See Sec. 11.)

That is all wrong. A man with a \$10,000 house and five acres of land would get as much water as some poor man owning a \$200 house and 50 acres of land.

Now one acre of land needs as much water as another acre, and the law should be so constructed as to provide for the assessing of each and every acre of land at one and the same price, regardless of its actual cash value, and for the distribution of the water on the acres last; then each acre would pay an equal proportion of the expense and receive an equal proportion of the water.

Also the tax-collector and treasurer should be done away with and the district bonds should be treated and the money raised from them in the same manner as in the case of district school bonds.

The law is lame in providing for elections; it allows any qualified voter to vote at all district elections, whereas it should allow only actual land-owners to vote, and should require a two-thirds vote to carry in voting for district bonds instead of a majority vote as at present. (See Secs. 2 and 15.)

Then, too, the Board of Directors is clothed with more arbitrary power than any other governing body in the United States. As I have said before, the law is lame in many sections and needs amendment.

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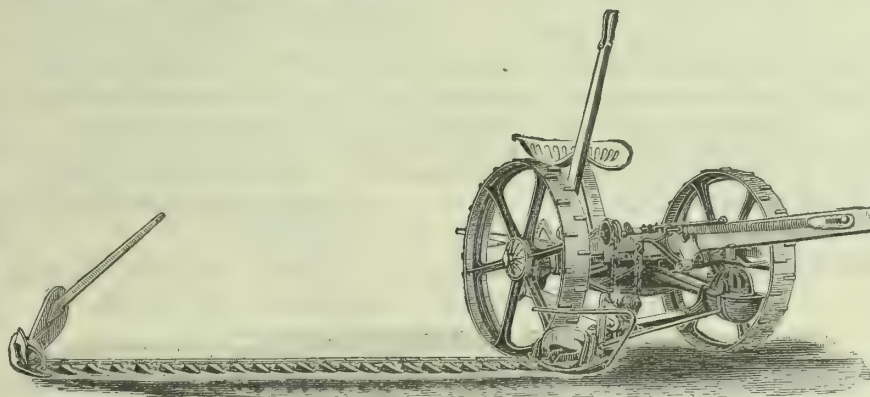
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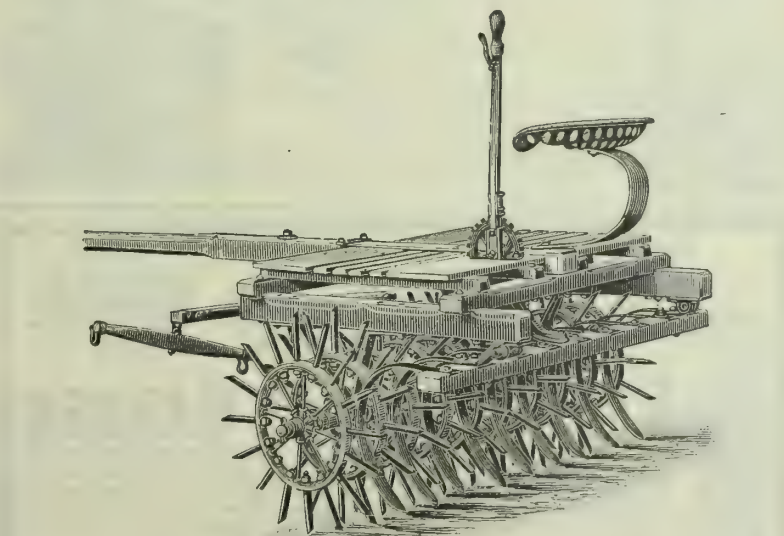
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FOR WEEK ENDING JAN. 29, 1889.

396,972.—LID-RAISER—J. S. Anderson, Crescent Bay, W. T.

396,797.—RUBBER FILTER—N. Beauregard, S. F.

397,070.—OKE SEPARATOR—E. Darbec, S. F.

397,071.—WATER-WHEEL—E. Darbec, S. F.

396,866.—DRILL SUPPORT—George E. Foster, Pleasant Valley, Cal.

396,872.—VEHICLE WHEEL—H. F. Hicks, Ashland, Ogn.

396,881.—HAY-FORK—W. H. Lander, Pendleton, Ogn.

397,823.—SAW-SETTING MACHINE—Alex Logan, Monterey, Cal.

396,947.—HOT-AIR BLAST—W. O. Mills, S. F.

397,092.—VENTILATING RAILWAY CARS—Murray & Harrison, San Rafael, Cal.

396,948.—GUARD FOR FISH NETS—Jacob Myers, Eureka, Cal.

396,834.—SIFTER—J. T. Quinn, Riverside, Cal.

396,774.—PAINT-OIL—A. Sommer, Berkeley, Cal.

396,965.—ELEVATOR SAFETY-ATTACHMENT—P. B. Sullivan, Tuscarora, Nev.

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False News.

The San Francisco Bulletin of February 6, 1889, publishes the following item, which is absolutely false and without foundation:

BRIDGEPORT, Conn., February 6.—The New Home Sewing Machine Company will go out of business. It is not able to continue at a profit, owing to strong competition.

The San Francisco Morning Call of February 7, 1889, publishes the following:

Going Out of Business.

BRIDGEPORT, Conn., February 6.—The New Home Sewing Machine Company will go out of business. It is not able to continue at a profit owing to strong competition. Several hundred hands will be thrown out of employment.

This, it is useless to say, is also false, being substantially the same as the other. "The New Home Sewing Machine Company" is as solid as a rock. It has the finest equipped and best appointed sewing-machine factory in the United States, located at Orange, Mass., where over 500 machines per day are turned out. We have sold over 1,000,000 machines, and are selling more than 150,000 machines per year on the second million. This should be conclusive evidence that the company is not going to retire from a business in which upward of 2,000,000 American dollars are profitably invested. In other words, The Popular New Home is here to stay, as it "ranks high above all competitors and is the leader of the age in practical improvements." The above-quoted items being published to the world will, doubtless, injure our business, and we warn all people not to credit any publication or verbal assertion of such a nature regarding our company, but when information is required, please interview the undersigned. Most truly, CHAS. E. NAYLOR, General Manager Pacific Department The New Home Sewing Machine Company.

Main office, 725 Market street, History building, San Francisco.

Company branch offices—46 Morrison street, Portland, Ogn.; 18 South Second street, San Jose, Cal.; 55 North Spring street, Los Angeles, Cal.

Local agencies everywhere. The following dispatch was received by Mr. Naylor this morning:

ORANGE, Mass., February 9, 1889.

Charles E. Naylor, Manager New Home Sewing Machine Company, San Francisco, Cal.: Mistake The New Home Sewing Machine Company not embarrassed financially. They are solid as the granite hills of New England. Business good, and the machine the most popular.

JOHN W. WHEELER, Vice-President, Secretary and Treasurer.

California Sunshine.

This is the fitting title of a very delightful little book by Mrs. L. H. Shuey, so well known to readers of our Journal as the Maid-of-all-Work, the pseudonym which she assumes in her contributions.

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15,000 two-year-old No. 1 Pear Trees, mostly Bartlett, Winter Nelis and Burre Clairgeau. Will be sold very cheap in large lots. Address, JAMES WATERS, Pajaro Valley Nurseries, Watsonville, Cal.

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FRESH AND RELIABLE. BUY NO OTHERS Seed Store at your door. Send for our illustrated catalogue of everything for the Farm and Garden.

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Headquarters for White Adriatic, White Genoa and San Pedro Figs.

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F. ROEDING, Proprietor, Box F, Fresno, Cal.

SALZER'S WHITE WONDER OATS.

Over 100,000 customers of 1888 gladly testify that they INCREASED ALL YIELDS. Yes, often DOUBLED them by sowing SALZER'S NORTHERN GROWN SEEDS. Because no other seed is so full of life, vigor and vitality—so prolific and early as Salzer's.

OAT NOVELTY--WHITE WONDER!

This is the most wonderful Oat we have ever seen or heard of, and we have tested EVERY sort offered by EVERY seedman in America, but none come half way up to it in VIGOR, vigor, beauty and quality. Scores of 1888 customers say: "Salzer's Giant Flat Dutch." Yielded 5 to 10 times as much as common oats! Its enormous yield is due to its great stooling properties, long ears and plump kernels. Early, fine, wonderful.

\$750 in prizes for Largest Yield in 1888. See Catalogue about it. First Prize \$300. Who won it? The farmer or wants big crops. Well, he can have them every time by sowing my seeds—yielding on wheat, 10 bu., barley 70 bu., new corn 125 bu., potatoes 600 bu., etc. Headquarters for all Farm Seeds, Grasses, Clovers, LICERNE CLOVER, MILLET and ENSILAGE CORN.

Floor area of seed store 2 acres. Potato cellar capacity 20,000 bu. 25 Packages Earliest Vegetable Novelties, postpaid, \$1. Send \$2 for Wonder Oat and Grain Samples or 10c for Giant Cabbage and receive elegant Catalogue.

JOHN A. SALZER, La Crosse, Wis.

One-third natural size.

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OUR MANUAL OF EVERYTHING FOR THE GARDEN

For 1889 is the handsomest and most complete Garden Guide ever published. It is really a book of 140 pages, size 9x11 inches, contains three colored plates, and illustrations of all that is new, useful and rare in Vegetables, Flowers, Fruits and Plants, with plain directions "How to grow them," by Peter Henderson.

This manual we mail to any address on receipt of 25 cts. (in stamps). To all so remitting 25 cts. for the manual, we will at the same time send free by mail, in addition, their choice of any one of the following **Splendid Novelties**, most of which are now offered for the first time, and the price of either of which is 25 cts.: One packet of Autumn King Cabbage, or one pkt. of Yosemite Mammoth Wax Bean (see illustration), or one pkt. Delmonico Musk Melon, or one pkt. Giant Pansy, or one pkt. Scarlet Triumph Aster, or one pkt. Sunflower "Silver and Gold," or one plant of the climber Blue Dawn Flower, or one plant of the White Moonflower, or one Bonanza Easter Lily, or one plant of either a Red, Yellow, White or Pink Everblooming Rose—on the distinct understanding, however, that those ordering will state in what paper they saw this advertisement.

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GRASS, FIELD, GARDEN & TREE SEEDS, FERTILIZERS, Etc.
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College, University and Business. Christmas Term opens Wednesday, Aug. 1st. REV. E. B. SPALDING, Rector.

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A HOME SCHOOL FOR BOYS AND YOUNG MEN

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Winter Term will begin January 2, 1889. Address the principal, Rev. SEWARD M. DODGE, B. A., Santa Rosa, Cal.

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SEND FOR CIRCULAR. E. P. HEALD, President.

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PERFECT MUSIC BOOKS

For CHOIRS, for CLASSES, for CONVENTIONS, are perhaps impossible—but DITSON & CO.'S matchless books are just on the line.

Emerson's Easy Anthems, 80 cts., \$7.20 are 40 in number—quite new—give about one for each Sunday in the year, and are full of grace and beauty.

Song Harmony, 80 cts., \$6 per dozen, by L. O. "perfect" book for singing Clases, perhaps the best of a long series of books by the same author.

The Graded Singing School, 50 cents, \$4.50 per dozen, by D. F. Hodges, is a sensible, practical method, by a very sensible, practical teacher, and is fully furnished with good material for successful work.

Jehovah's Praise, \$1, or \$9 per dozen, by L. Chubb Music Book, with a large number of Anthems and Tunes for Choirs, also Glee, Part Songs, and a multitude of melodious exercises for classes.

Temple Chimes, 35 cents, or \$3.60 dozen, by published, is a very superior collection of new Gospel Songs, of Hymns and Tunes.

Praise in Song, 40 cents, \$4.20 dozen, by L. O. and E. U. Emerson, is a new Sunday School and Praise Book, full of uncommonly good music and hymns. A very "perfect" book for vestry singing.

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75,000 TONS CAPACITY. 75,000 Storage at Lowest Rates.

CHAS. H. SINCLAIR, Supt.
Cal. Dry Dock Co., props. Office, 803 Cal. St. room 18

THE VETERINARIAN.

The Quarantine and Veterinary Bills.

[Written for the RURAL PRESS by W. G. HODSON.]

There are before the Legislature of California two bills which are of vital importance to cattle-raisers, horsemen, and the public at large.

Senator Heacock expressed himself last week as of the opinion that the Quarantine Act forwarded by Dr. Thos. Bowhill was one of the finest pieces of work ever submitted to the Judiciary Committee. The bill is entitled: To regulate the quarantine and the admission of cattle into the State of California from infected districts. In conjunction with this bill, the Judiciary Committee have also considered the advisability of taking some sections from the Illinois Quarantine law; to suppress and prevent the introduction and spread of Texas or Spanish fever, pleuro pneumonia and other infectious diseases among cattle.

It is unnecessary for me to urge the importance of such an Act at the present time, because our legislators are aware of it. Immense numbers of cattle are dying of Texas fever on some large southern ranches of this State. There is also black-leg, anthrax and actinomycosis—a goodly array, to which we may add tuberculosis. The latter is infectious; a herd of cows confined together may take consumption from one old stager whose lungs are rotten with tubercle.

What it is necessary to urge is, that all endeavors made by the Legislature of California to suppress infectious disease among cattle must have the co-operation and sympathy of all the people.

Dr. Bowhill in writing to Mr. Edward Smith, secretary of the State Board of Agriculture, well says: "The accompanying draft covers all the ground necessary to prevent the entry of Texas fever, pleuro-pneumonia, etc., into this State. Large cattle-owners may oppose the bill for selfish reasons, but it is absolutely essential to protect the small cattle-owner who has nothing else to depend upon but his small band of cattle, and who is, as a rule, the heaviest loser, because the wealthy cattle-owner drives his Southern steers across the poor man's ranch, and while they get fat and crack up their heels, all the native cattle which cross the trails during a period of 90 days take the Texas or Southern fever, and die. Unless something is done to remedy this evil, we will more than likely have permanent infection, if such is not already the case."

I may say that the above letter was not intended for general circulation, but as it has found its way into print, I do not hesitate to give it.

The Veterinary Act.

Great advances have been made of late years in the education and standing of veterinary practitioners. Such names as Bollinger, Gerlach, Rivolta, Fleming, with a host of others (including Pasteur), which might be given—men whose discoveries will be of lasting benefit to the human family.

Inasmuch as many fatal germs have been proved to be interchangeable between man and beast, and this mainly through researches made by veterinarians, and inasmuch as a climate such as the Californian is but too well adapted to their rapid development, it is high time that a mutual effort should be made among its veterinary surgeons to assist each other, to educate each other and to elevate each other.

The present Veterinary Medical Society has been formed for such a purpose, and has been already recognized by the Governor and the State Board of Agriculture. Members have been admitted to this society who have practiced veterinary surgery in California, and in cases where they held no diplomas from recognized colleges, a board of examiners under the presidency of Dr. Thos. Bowhill has given applicants for membership a thorough examination before admitting them.

Under the proposed Act, veterinary surgeons already practicing and holding no diplomas, will, on passing the required examination, have all the privileges of those practitioners who may be admitted by diploma. The power of conferring a license to practice in this State to be in effect until January, 1890, after which time it is hoped that all those residing in this State will have full qualifications.

To exclude competent but non-graduate men already practicing veterinary surgery in this State—some of them for many years past—would be a hardship which was avoided in the bill to regulate medical practice.

California is admirably adapted to the raising of a high grade of stock, and to the breeding and training of horses. A good practice and fair remuneration is sure to await every veterinary surgeon whose merits may have a claim on the public.

San Francisco, Feb. 12th.

A Prosperous Concern.

[Special to the Evening Post.]

ORANGE, Mass., Feb. 8, 1889.—The New Home Sewing Machine Company, whose factory is located here, is in a flourishing condition. Their business is good and their machine popular.

The report telegraphed on the 6th instant from Bridgeport, Conn., regarding this company, was false, and probably was intended to refer to another concern.

FRUIT MARKETING.

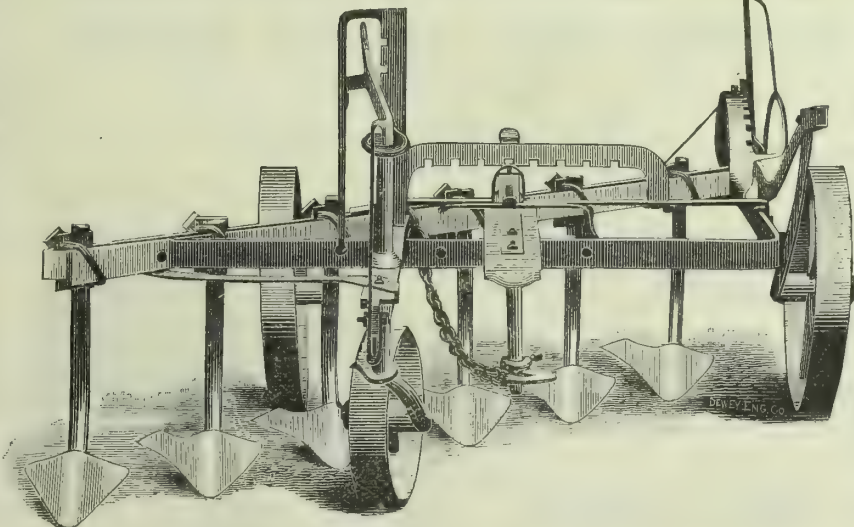
Selling Florida Oranges.

EDITORS PRESS:—The experiment of shipping Florida oranges in "bulk," it may interest some of your patrons to know, is proving to be surprisingly satisfactory, in delivering the fruit to us, by freight, about six days' transit, in decidedly better condition, and, contrary to expectation, in more desirable, more salable shape than the packed fruit. Their better condition in "bulk" is due to better ventilation (not being confined in paper and box), and we find they sell better because buyers see at a glance just what the fruit is; and they prefer to pay "so much" per thousand visible oranges than take risks on the fruit hidden in paper and box, which can be only partially examined. Bulk shipping is a desirable "new departure" for us, as it shows up the oranges for quick and meritorious sales, and it is certainly a profitable change for the shipper, in that it saves him time, labor and expense of sizing, wrapping, and boxing, and the sounder fruit better displayed commands the advantage in this market.

Oranges are doing decidedly better with us since apples are largely out of the way. The Florida crop has been of poorer quality than usual and is mostly marketed.

The foreign supply in our Eastern ports and en route for this month so far as at present advised is about as follows:

New York 160,000 boxes and 5000 cases; Boston, 30,000 boxes; Philadelphia, 15,000 boxes; Baltimore, 10,000 boxes; from which it



CULTIVATOR INVENTED BY L. P. HELMER OF WATSONVILLE.

is self-evident that Philadelphia will soon be dependent upon reshipments for her proportionate supply according to population and trade of these markets, and therefore we should have the best market for California Eastern shipments by March. For directions as to lining, loading, and ventilating car bulk oranges, let shippers apply to

PANCOAST & GRIFFITHS,
11 South Water St., Philadelphia.

The Helmer Cultivator.

California boasts of many local inventions admirably adapted to the special uses for which they are designed. We have local makes of plows, cultivators, harvesters, etc., which are a credit to the inventive genius and mechanical skill of Californians. One of the latest illustrations of local ability in the line of agricultural inventions is the Helmer cultivator, shown in the engraving used herewith. It is the invention of L. P. Helmer of Watsonville, and was patented August, 1888. The following is a description of the implement:

This cultivator is especially adapted to be used in orchards, and when so used it is often desirable to have the front plow, which runs close to the tree, to sink but slightly into the ground, so as not to touch the roots; while it is desirable to have the rear plows, which are farther away, to plow more deeply. It is claimed that this is readily effected by the Helmer cultivator.

With the attachment of the tongue, the cultivator can be run close up to the tree, with the team entirely away from the limbs.

Owing to the fact that the Helmer cultivator has only one row of plows, it will run on a hillside in a straight line as well as on level ground; whereas in cultivators having two rows, the tendency is to crowd down-hill, and the consequence is that the lower row plows much the deeper.

There being no seat on the Helmer cultivator, there is nothing in the way of the limbs of the trees, and the position of the driver being in the rear, he can easily manage the team.

Owing to the swivel attachment of the tongue, there is no perceptible side draft, and its use will demonstrate the fact that this cultivator has a lighter draft than any other machine of the same size in use.

This cultivator is easily handled with one span of horses.

Correspondence concerning the cultivator can be addressed to the inventor, L. P. Helmer, Watsonville, Cal.

San Bernardino Citrus Fair.

A Citrus Fair, under the auspices of the local Board of Trade, opened at San Bernardino on Wednesday, 13th instant, and will continue one week.

Riverside, Redlands, Highland, Colton, Ontario and other sections of the county vie with each other in making fine displays in the Van Dorin block.

Excursions are to be run from Los Angeles and Pasadena, Santa Ana, San Diego and other points on the line of the Santa Fe and S. P. railroads.

The fair is under the management of that veteran in the business, L. M. Holt. The Press acknowledges the receipt of complimentary season tickets, and hopes the exhibition is proving, as its promoters meant it should, one of the finest ever held in California.

From Mendocino County.

EDITORS PRESS:—Farmers here are through seeding and are anxiously looking for rain, late-sown grain being badly in need of it. Early-sown is looking finely.

Fruit-raising is receiving more attention than formerly, but the scarcity and high price of nursery stock prevents some from completing their orchards as intended.

Pasture is good and stock doing well, with no loss so far except from varminets. Coyotes have

California Products at Chicago.

CHICAGO, Feb. 13.—Because that arrivals of oranges have been slightly larger, buyers are holding off with a view of purchasing a shade lower. Receivers, however, are adhering to previous prices. California, \$3 box, \$3.50; do, Navels, \$5@6.

California dried fruits remain very quiet. Sun-dried peaches are offered and found very dull and weak, no one caring to purchase. Evaporated peaches also rule dull and slow; about the only kind of fruits wanted is choice apricots and raisins. These descriptions meet with fair sale and rule steady.

Apricots—Evaporated, bleached, bxs, 13@14c; do, sun-dried, bleached, bxs, 9@12c. Apricots, sun-dried, unbleached sks, 7@9c. Peaches—Evaporated, bleached, unpeeled, bxs, 7@8½c; do, sun-dried, bleached, unpeeled, sks, 6@7c; do, unbleached, unpeeled, sks, 4@5c; do, sun-dried, peeled, bxs, 10@12½c; do, peeled, sks, 10@10½c; do, evaporated, peeled, bxs, 12@13c. Nectarines—White, evaporated, bleached, bxs, 9@10c; do, sun-dried, sks, 8@9c; do, red, evaporated, bleached, bxs, 7@8c; do, sun-dried, bleached, sks, 6½@7½c. Plums—New, pitted, 7½@8c; new, unpitted, 4@7c. Prunes, according to size, in sks, 5@9c; do, Silver, 10@12c; do, Hungarian, sks, 3@3½c.

Raisins—Loose Muscatels, new, \$ box, \$1.10@1.50; do, London layers, new, \$1.75@2.25.

Hops continue in fair demand. A steady to firm feeling is maintained. Stocks are only moderate and receipts are small. Washington Territory, good to choice, 18@22c; do, red tinted, 15@17c; do, common red, 12@14c; Pacific Coast, fair to prime, 18@20c; do, choice, 20@22c.

Beans are rather easy, for arrivals lately have been fair, while at the same time trade is not badly in need of stock. The demand is limited. California pea beans, \$1.75@1.85 per cwt.; do, Lima, 4½¢ per lb.

CLYDESDALE STALLIONS

FOR SALE!

Pure Bred Clydesdale Stallion
DUKE,

Foaled May 10, 1883, color bright bay, stands 18 hands 2 inches high; has weighed 2100 pounds.

Sire, imp. Ben Lomond; g sire, imp. Glengarry; g g sire, imp. Rourick Dhu; g g g sire, imp. Red McGregory; g g g g sire, imp. 1am O'Shanter.

DAM.
Dam sire, imp. Glancer; g sire, imp. Champion; g g sire, President; g g g sire, imp. Provost.

Won at San Jose, 1884, first premium as best yearling. Won, 1885, first premium as best two-year-old at Sacramento State Fair. Won, 1886, first premium as best three-year-old at Livermore Stallion Show, also sweepstakes over all others of any age or breed; 1887, first premium at State Fair, Sacramento, as best four-year-old; also first premium at Los Angeles; 1888, first premium at State Fair, Sacramento, as best five-year-old.

Pure Bred Clydesdale Stallion
PRINCE,

Foaled May 18, 1886, color, dark bay, and an excellent mover; very docile in temper. Free from all natural imperfections.

Full brother to Duke, so pedigree is the same. Won, 1886, first premium at State Fair, Sacramento, as best sucking colt. Won, 1887, first premium at State Fair, Sacramento, as best yearling. Won, 1887, first premium at Stockton and first premium at Los Angeles. Won, 1888, first premium at State Fair, Sacramento.

These animals are the property of James Roberts, Irvington, Alameda Co., and are among the highest type of the Clyde horses. They may be seen at Irvington up to February 1st, after that date at Bay District Track, San Francisco.

For particulars apply to

KILLIP & CO., 22 Montgomery Street.

THOROUGHbred
CLYDESDALE
Mares,

TO ARRIVE FROM AUSTRALIA

—ON—
SATURDAY, Feb. 16, 1889.

Four Head of Clyde Mares,

The finest ever imported to this State. Can be seen after that date at Bay District Track.

Apply to I. TRESTRAIL, at Track, or to

KILLIP & CO.,
22 Montgomery Street.

PROTECT YOUR TREES

FROM

Sunburn, Borer, Rabbits, etc.

One Cent per Tree!

Hay's Tree Stem Envelope

(Patent applied for.)

WATERPROOF! ADJUSTABLE!

Easy, economical and expeditious. Saves time, trouble and expense. Waterproof Paper, 7x13 inches, \$1 per 100.

Tarred Felt, vermin and waterproof, good for 3 years, 7x16 inches, \$2 per 100. Special sizes made to order. Send for samples. Orders promptly filled by

PACIFIC PAPER CO.,

416 Sacramento St., San Francisco, Cal.

Engraving Samples.

Send 2-cent stamp for 16 page free list of illustrated samples of Photo-Facsimile, Photo-Zinc Etching and Wood Engravings (Proof-Sheet No. 3) to DEWEY ENGRAVING CO., 220 Market St., S. F.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

HORSES AND CATTLE

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. B. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton,) Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Short-horns & Herefords, Wildflower Farm, Fresno or Sacto.

OOTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. BOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAXE & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

GEO. BEMENT & SON, Maple Grove Farm, Oakland P. O., breeders of Ayrshire Cattle & Essex Swine.

F. B. BURKE, 401 Montgomery St., S. F.: Registered Holsteins; winners of more first prizes, sweepstakes and special premiums this year than any herd on the Coast. Pure Berkshire Pigs. Catalogues.

H. P. MOHR, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

H. S. SARGENT, Stockton, importer and breeder of registered Jersey Cattle. Correspondence solicited.

P. PETERSEN, Sites, Colusa Co., importer & breeder of registered Shorthorn Cattle. Young bulls for sale.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENMAN & MCNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

POULTRY.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

R. G. HEAD, Napa, Cal., breeder of the choicest varieties of Poultry. Each variety a specialty. Send for new Catalogue.

T. D. MORRIS, Agua Caliente, Cal.; pure-bred fowls.

GALT POULTRY YARDS, S. W. Palin, prop'r, Galt, Sacto Co., Cal., importer and breeder of thoroughbred P. Y. Rocks, Lt. Brahmas, Langshans, Wyandottes & P. Cochins; eggs, single sitting \$3, 3 sit's \$7.

W. G. ELLIS, 954 Broadway, Oakland, Cal., importer and breeder of thoroughbred Black Leghorns.

A. C. RUSCHHAUPT (successor to Jas. T. Brown), P. O. Box 48, Station B, Los Angeles, Cal., yard on State St., Brooklyn Heights, importer and breeder of all leading thoroughbred Fowls, and Eggs, at reasonable prices. Circular free.

W. C. DAMON, Napa, \$2 each for choice Lt. Brahmas, Wyandottes, P. Rocks, White and Brown Leghorns Best Seed for sale.

D. H. EVERETT, 1616 Larkin St., S. F., importer and breeder of Thoroughbred Langshans and Wyandottes.

O. J. ALBEE, Lawrence, Cal., breeder and importer.

SHEEP AND GOATS.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennies & Berkshire Swine high graded rams for sale.

A. W. WOOLSEY & SON, Fulton, Cal., importers & breeders Spanish Merino Sheep; ewes & rams for sale.

R. H. CRANE, Petaluma, Cal., breeder and importer, South Down Sheep from Illinois and England for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

SWINE.

TYLER BEACH, San Jose, Cal., breeder of thoroughbred Berkshires and Essex Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

JOSEPH MELVIN, Davisville, Cal., Breeder of Poland China Hogs.

ANDREW SMITH, Redwood City, Cal.; see adv't.

APIARIAN SUPPLIES for sale by Mrs. J. D. Eads, Napa City, Cal.

IMPORTANT!

That the public should know that for the past **Eighteen Years** our **Sole Business** has been, and now is importing (**Over 100 Carloads**) and breeding improved Live Stock—Horses, Jacks, Short Horns, Ayrshires, and Jerseys (or Alderneys) and their grades; also, all the varieties of breeding Sheep and Hogs. We can supply any and all good animals that may be wanted, and at very reasonable prices and on convenient terms. Write or call on us. **PETER SAXE and HOMER P. SAXE.**
San Francisco, Cal., Oct. 22, 1888. **PETER SAXE & SON, Lick House, S. F.**

CHAMPION GOLD MEDAL STUD!

250 CLEVELAND BAYS AND ENGLISH SHIRES

Of the highest breeding and most popular strains. We carry a large stock of young, vigorous stallions and mares at all seasons, imported young and matured on our farms, thus fully acclimated and sure breeders. Prices low and terms easy.

150 HOLSTEIN-FRIESIANS

At exceptionally low prices. Grand opportunity to secure foundation stock at low figures.

Send for illustrated descriptive pamphlet and mention the **PACIFIC RURAL PRESS.**

GEO. E. BROWN & CO., Aurora, Kane Co., Ill.



POPLAR GROVE Breeding FARM,

S. N. STRAUPE, Proprietor,



P. O. Address, FRESNO, CAL

—IMPORTER AND BREEDER OF—

THOROUGHbred POLLED ANGUS AND SHORTHORN CATTLE, AND HIGHLY-BRED TROTTER HORSES.

For information address or call on **S. N. Straupe** as above. No trouble to show stock to intending purchasers.

HECKMANN & IMMEL, Commission Merchants

AND WHOLESALE DEALERS IN

CALIFORNIA FRUIT AND PRODUCE,

Poultry, Game, Eggs, Hides, Pelts, Tallow, Etc.

Country Orders Promptly Filled. Consignments Solicited.

P. O. Box 1928 400 & 402 DAVIS ST. and 122 WASHINGTON ST., SAN FRANCISCO

REGISTERED SHROPSHIRE SHEEP AND BERKSHIRE PIGS.

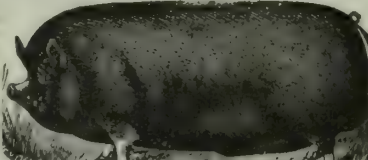
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Royal Duke of California.

ANDREW SMITH, Redwood City, Cal., or 218 California St., S. F.

Winners of all blue ribbons in their classes and sweepstakes prizes at State Fairs, Sacramento, 1886 and 1887. Importations made by me annually of the best blood obtainable in England, regardless of cost. Young stock, bred from these importations, male and female, from different families, for sale at reasonable prices, and every animal guaranteed. Address.



Redwood Duke, No. 13,368.

T. SKILLMAN,

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NORMAN-PERCHERON, SUFFOLK and FRENCH COACH HORSES, Petaluma, Cal.

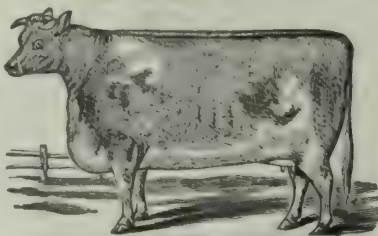
I wish to state to the public that I am now offering for sale, at **RED-ROCK PRICES**, Imported and High-grade

STALLIONS AND MARES

Of the above-named classes. Come and have a look at this fine stud of horses, make your selection and I will guarantee prices and terms to suit.

Catalogue sent on application.
Horses may be seen at the **RED STABLE**, a little to the north and right of the **R. R. Depot**, Petaluma.

P. S. CHILES, DAVISVILLE, CAL.



Breeder of SHORTHORN CATTLE

Of the best families. A choice lot of young Bulls and Heifers for sale, 4 years old and under, from the celebrated Kirkclevington Oxford Count, 36728.



H. WILSEY & CO. Petaluma, Cal., IMPORTERS OF—

FRENCH AND ENGLISH DRAFT STALLIONS

Of dark colors, coming 3 and 4 years old; with choice pedigrees in their native countries, and recorded in the American Stud Book. Several of our Stallions took

First and Second Prizes at State and County Fairs, 1888.

Call and examine our stock. We will sell on most reasonable terms.

At **Petaluma Stables**, on Main Street, opposite Plaza.

H. WILSEY & CO.

We invite correspondence with those wishing any certain class of stock brought from Europe; will bring them as cheaply as they can be handled, and you will get what you desire.

H. WILSEY & CO.

IMPORTANT! To Breeders of all-work Horses. FOR SALE!

A two and one-half year old Stallion Colt; weighs 1300 pounds; color, beautiful steel gray; perfectly sound; broken to drive single and double, and for style, considering weight, size and age, perhaps cannot be excelled in the State. Is three-fourths Norman and one-fourth Belmont. For further particulars apply to

G. J. VANDERVOORT, Sunol, Cal.

ATTENTION!

For the next thirty days a number of fine, pure-bred **HOLSTEIN-FRIESIAN BULLS**

(Registered) will be on sale at reasonable terms at the **MT. EDEN BREEDING FARM.** Address or call on **H. P. MOHR, Mt. Eden, Alameda Co., Cal.**

STORAGE

We have some extra room suitable for storage purposes, which we will let on very reasonable terms.

DEWEY & CO., 220 Market street, San Francisco, Cal.

PURE BRED CLYDESDALE STALLIONS.

Six Head of the Finest and Best Clydesdales

Ever Imported to California are now on Exhibition at the Bay District Track.

MR. TRESTAIL, the owner and importer, will be pleased to show them to intending purchasers, and prices and information furnished at either the Track or of

KILLIP & CO.,

22 Montgomery St., San Francisco.

COLTS BROKEN.

THE SOUTHER FARM,

One and a half miles northeast of San Leandro, Alameda County, has every facility for Breaking Colts properly. Rates very reasonable. Horses boarded at all times.

THE SOUTHER FARM,

GILBERT TOMPKINS, Proprietor, P. O. Box 149, San Leandro, Cal.

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VETERINARY SURGEON,

Member of the Royal College of Veterinary Surgeons, London, England.

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OFFICE AND PHARMACY:

No. 11 Seventh St., near Market, San Francisco, Cal. Open Day and Night. Telephone, No. 3369.

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Two 3 NORMAN STALLIONS. Five YOUNG, LARGE NATIVE JACKS.

For further particulars apply to

J. D. ROSENBERGER,

Sites, Colusa Co., Cal.

FOUR SHORTHORN BULLS FOR SALE.

One and two years old; Reds; are Bates blood, of good milking families; are good animals. Recorded in Vols. 33 and 34. Having no place for them, must be sold.

Address:

P. H. MURPHY, Perkins, Sacramento Co., Cal.

BADEN FARM HERD

Of Short Horn Cattle and Dairy Cows.

Catalogues and Prices on application to

ROBERT ASHBURNER,

Baden Station. San Mateo Co., Cal.

PERCHERON HORSES ONLY.

I offer for sale at my ranch, on Clear Lake, near Lakeport, pure-bred Percheron Mares and Horses of the choicest families. Pedigrees recorded in the Percheron Stud Book of France and America. They are principally the Brilliant, Caesar strains of blood. Address

WM. B. COILLIER,

Lakeport, Cal.

DUTTON GRINDER

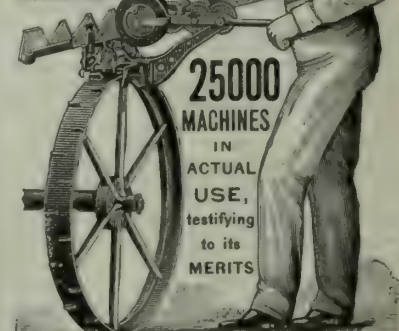
PERFECT MOWING MACHINE KNIFE GRINDER.

Can be carried into the field and attached to Mowing Machine-Wheel.

New Descriptive Catalogue Free.

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189 Water St., N. Y. Main Office: HIGGINS MACHINERY CORPORATION, CONNECTICUT.



25000 MACHINES IN ACTUAL USE, testifying to its MERITS

GLADDING, McBEAN & CO. SEWER & CHIMNEY PIPE, DRAIN TILE, ARCHITECTURAL TERRA COTTA ETC. 1358-1360 MARKET ST. S. F. MANUFACTORY AT LINCOLN CAL.

SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19; and 25 others with records better than 2:30, and the dam of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp Emancipation. Third dam by Bertrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbridge, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Rysdyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Tamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08; and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 6th heat, 2:26.

First dam Katie G (the dam of H. B. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:20), and of Lady Hoag, trial, 2:45. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No 584 E. C. B. Stud Book.
Vol. 1, American C. B. S. B.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportsman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.
Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" cases, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire beating 20 others.

First dam Whalebone (355), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16; hands high, weight 1600 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 243; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teesdale, and second premium at Bowes, England, in 1886; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

The Standard Bred and Cleveland Bay Stallions

Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

PASTURAGE, \$4 per month; Hay and Grain, \$10. Best care taken, but no liability assumed for accidents or escapes.

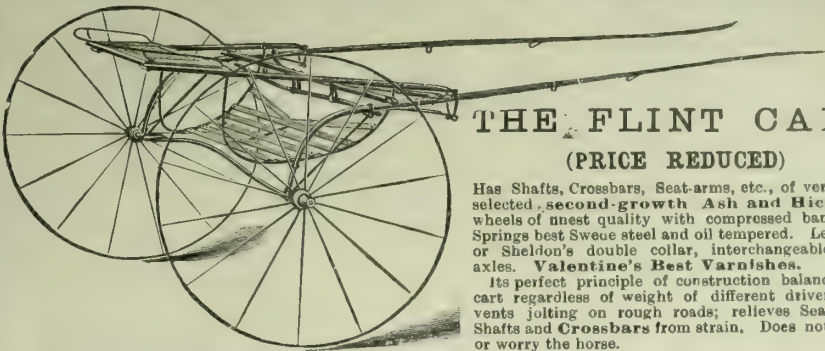
Mares sent to Fashion Stables, Oakland, Benne's Stables, Martinez, or to Geary & Grindie's Stables, Hayward, will be forwarded to Farm free of Charge.

Address:

COOK STOCK FARM,

DANVILLE, CAL.

LIGHTEST, STRONGEST AND EASIEST RIDING.

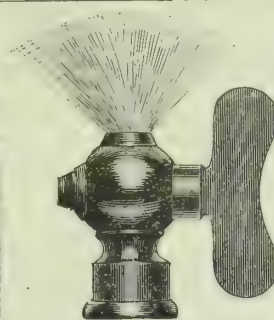


THE FLINT CART
(PRICE REDUCED)

Has Shafts, Crossbars, Seat-arms, etc., of very best selected, second-growth Ash and Hickory; wheels of finest quality with compressed band hub Springs best Sween steel and oil tempered. Leggett's or Sheldon's double collar, interchangeable steel axles. Valentine's Best Varnishes.

Its perfect principle of construction balances the cart regardless of weight of different drivers; prevents jolting on rough roads; relieves Seat-arms, Shafts and Crossbars from strain. Does not chafe or worry the horse.

ALSO SAME CART WITH DROP BAR. All Work Guaranteed. Address
FRANK BROTHERS, 33 and 35 Main St., San Francisco, Cal.



OUR SPRAY NOZZLE

Can be made to throw from the finest spray to a solid stream in an instant, therefore it cannot be clogged. Price, \$1, postage paid.

The BEAN AUTOMATIC SPRAY PUMP
BEST APPARATUS ON THE MARKET.

HUNDREDS NOW IN OPERATION BY FRUIT-GROWERS, and highly commended. It throws a continuous spray for thirty minutes without working the pump. Send for Circular and Testimonials.

BEAN SPRAY PUMP CO., Los Gatos, Santa Clara Co., Cal.

SAN FRANCISCO TOOL CO.,

MANUFACTURERS OF

IRRIGATING PUMPS

— AND —

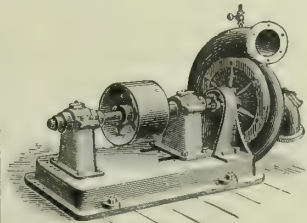
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OF ALL KINDS.

Send for Catalogues.

WORKS:

FIRST and STEVENSON STS., S. F.



CENTRIFUGAL PUMP.

TAYLOR'S FUMA CARBON BISULPHIDE

For Killing Squirrels, Gophers, Prairie Dogs

AND OTHER BURROWING ANIMALS.

This article is specially prepared for this purpose, and will give a better return for the money than any other goods on the market. No animal can live in its closed hole with this. It leaves no useless residue.

Get a trial order from your Druggist and see for yourself.

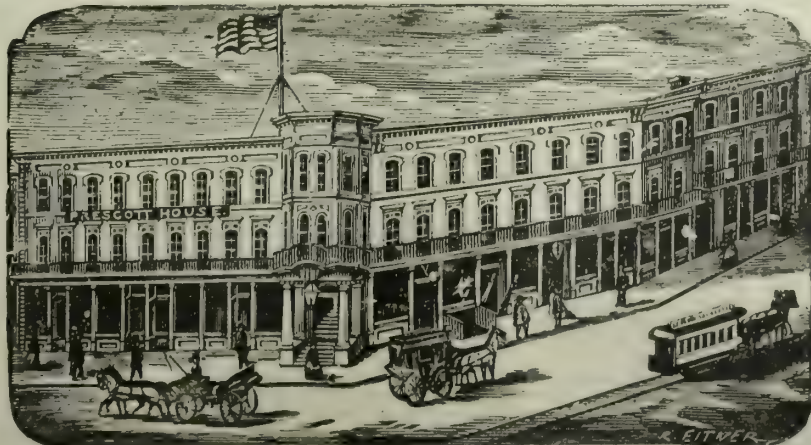
Manufactured by EDWARD R. TAYLOR, Manufacturing Chemist, Cleveland, Ohio

JAMES LINFORTH, Agent, 37 Market St., San Francisco.

FOR SALE BY ALL DRUGGISTS.

Directions for use with each package

PRESCOTT HOUSE.



S. W. Corner Kearny and Montgomery Avenue, San Francisco.

Free Coach to and from the House.

J. W. BECKER, Proprietor.

POULTRY, ETC.

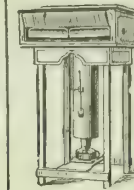
OAKLAND POULTRY YARDS,
Cor. 17th & Castro Sts., Oakland, Cal.



Manufactory of the PACIFIC INCUBATOR and BROODER. Agency of the celebrated silver finish galvanized wire netting for Rabbit and Poultry-proof fences, the Wilson Bone and Shell Mill, the Pacific Egg Food, and Poultry appliances in great variety. Also every variety of land and water Fowl, which have won first prizes wherever exhibited. Eggs for hatching. The Pacific Coast Poultryers' Hand-Book and Guide, price, 40c. Send 2c. stamp for 60-page illustrated circular to the PACIFIC INCUBATOR CO., 1317 Castro St., Oakland, Cal.

Chickens

RAISED BY THE Petaluma



INCUBATORS & BROODERS

Afford more profit than any other business for the capital invested. The most successful machines made; any one can manage them. A large illustrated circular and pamphlet, "Practical Artificial Rearing of Chickens," will be mailed FREE to any one sending us his name and address. Contains information valuable to any one who keeps fowls. [Mention this paper.]

PETALUMA INCUBATOR CO., Petaluma, Cal.



JOHN McFARLING,

Importer and Breeder of
High Class

BLACK MINORCAS, RED CAPS,

Silver-Laced Wyandottes White Plymouth Rocks, Light Brahmas, Partridge Cochins, Buff Cochins, Plymouth Rocks, White Crested Black Polish, China Langshans, Black Leghorns, White Leghorns, Brown Leghorns, Rose-Comb Amer can Dominiques, Thoroughbred Berkshire Figs.

Large lot of young birds ready for sale. Send for Circulars.

706 TWELFTH ST., OAKLAND, CAL.



The Halsted Incubator Co.

1312 Myrtle St., Oakland, Cal.

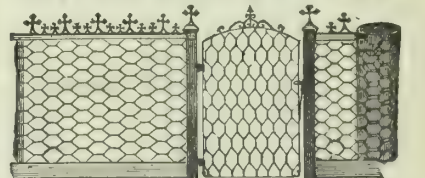
Thoroughbred Poultry and Eggs.

Send Stamp for Circular.

SACRAMENTO CO. POULTRY YARDS,
GEO. E. DUDEN, Proprietor,

Importer and breeder of Thoroughbred Poultry, 5 miles southeast of Sacramento, near Lake House, on the upper Stockton road. P. O. address, Box 376, Sacramento, Cal.

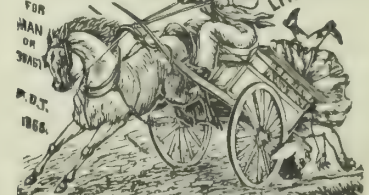
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Best Fences and Gates for all purposes. Free Catalogue giving full particulars and prices.

Ask Hardware Dealers, or address, mentioning this paper, SEDGWICK BROS. Richmond, Ind.

H.H.H. HORSE LINIMENT.



THE H. H. H. Horse Liniment puts new life into the Antiquated Horse! For the last 14 years the H. H. H. Horse Liniment has been the leading remedy among Farmers and Stockmen for the cure of Sprains, Bruises, Stiff Joints, Spavins, Windgalls, Sore Shoulders, etc., and for Family Use is without an equal for Rheumatism, Neuralgia, Aches, Pains, Bruises, Cuts and Sprains of all characters. The H. H. H. Liniment has many imitations, and we caution the Public to see that the Trade Mark "H. H. H." is on every Bottle before purchasing. For sale everywhere for 50 cents and \$1.00 per Bottle.

For Sale by all Druggists.

PIONEER BOX COMPANY,

Manufacturers of all kinds of

FRUIT and PACKING BOXES,

Grape and Berry Baskets,

Cor. Front and M Sts., SACRAMENTO.

AGENTS LOOK HERE

and farmers with no experience make \$2.50 an hour during spare time. J. V. Kenyon, Glens Falls, N. Y., made \$18 one day, \$76.50 one week. So can you. Proofs and catalogue free. J. E. SHEPARD & Co., Cincinnati, O.

Dried Fruits, Etc.			
The quotations given below are for average prices paid.			
Choice to extra choice lots, an advance on the highest			
quotations while poor sells slightly below the lowest quotations.			
Prices named for sun-dried as for fruit in sacks. Add			
for 5-lb. boxes 1c per lb., and for 25-lb boxes 1c to 1 1/2c per lb.			
Apples, sun-dried, quarters, common.....	31	@	31
" " " prime.....	32	@	32
" " " choice.....	41	@	41
" " " sliced, common.....	33	@	33
" " " " prime.....	41	@	41
" " " " choice.....	5	@	5
" " " Evap. bleached, ring, 5-lb boxes.....	5	@	5
A roots, sun-dried, unbleached.....	3	@	3
" " " prime.....	6	@	6
" " " choice.....	7	@	7
" " " bleached, prime.....	11	@	11
" " " " choice.....	12	@	12
" " " " fancy.....	13	@	13
" " " Evap. choice, in boxes.....	14	@	14
" " " " fancy.....	15	@	15
" " " " ".....	16	@	16
Figs, sun-dried, black.....	4	@	4
" " " white.....	—	@	—
" " " washed.....	—	@	—
" " " fancy.....	—	@	—
" " " pressed.....	4	@	5
" " " unpressed.....	2	@	2
Grapes, sun-dried, stemless.....	4	@	4
" " " unstemmed.....	2	@	3
Nectarines, sun-dried.....	5	@	7
" " " evaporated in boxes.....	7	@	11
Peaches, sun-dried, unpeeled, common.....	4	@	4
" " " " prime.....	5	@	6
" " " " choice.....	6	@	7
" " " " fancy.....	7	@	18
" " " evaporated.....	10	@	11
" " " " " fancy.....	13	@	13

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE.	Portland.	Eureka.	Red Bluff.	Sacramento.	S. Francisco.	Fresno.	Keeler.	Los Angeles.	San Diego.
Feb. 6-12.	Rain.	Rain.	Rain.	Rain.	Rain.	Rain.	Rain.	Rain.	Rain.
Wednesday	00 48 SE Cy.	05 52 N Cy.	00 58 S Cl.	00 52 NW Cl.	01 54 W Cl.	00 62 NW Cl.	00 46 Cm Cl.	00 51 W Cy.	00 56 W Cl.
Thursday	02 52 N Cl.	05 52 N Cl.	00 54 S Fr.	00 52 Cm Cy.	00 55 W Fr.	00 46 N Cy.	00 54 Cm Cl.	00 56 W Cl.	00 58 W Cl.
Friday	00 50 N Cl.	00 54 NW Cl.	00 70 N Cl.	00 52 SE Cl.	00 50 NW Cy.	00 52 N Cl.	00 58 N Cl.	00 58 W Cl.	00 58 W Cl.
Saturday	00 52 NW Fr.	00 54 N Cl.	00 62 S Cl.	00 52 SE Cl.	00 58 NW Cl.	00 54 NW Cl.	00 58 NW Cl.	00 64 W Cl.	00 64 NW Cl.
Sunday	00 56 NW Cl.	00 56 SW Cl.	01 52 S Cl.	00 54 NE Cl.	00 58 NW Cl.	00 64 W Cl.	00 66 N Cl.	00 68 W Cl.	00 64 N Cl.
Monday	00 52 NW Cy.	00 58 N Cl.	00 80 N Cl.	00 64 SE Cl.	00 65 W Cl.	00 64 NW Cl.	00 66 N Cl.	00 72 W Cl.	00 64 NW Cl.
Tuesday	00 52 NW Cl.	00 54 N Cl.	00 60 S Cl.	00 66 SE Cl.	00 67 NW Cl.	00 70 E Cl.	00 58 Cm Cl.	00 72 W Cl.	00 74 NW Fr.
Total.	02	05	01	00	01	00	00	00	00

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; Cm., calm; — indicates too small to measure. Temperature, wind and weather at 12:30 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.

" sun-dried, peeled, prime.. 8 @
 " " choice 9 @
 " " fancy 10 @
 " evaporated, " in boxes, choice 10 @
 " " fancy 12 @

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 13, 1889.

BEANS AND PEAS.	Soft shell..... 9 @ 94
Bayo, chl..... 2 00 @ 2 50	Paper shell..... 12 @ 13
Butter..... 2 50 @ 3 00	Brazil..... 8 @ 10
Pea..... 1 75 @ 1 85	Pecans..... 10 @ 17
Red..... 2 00 @ 2 30	Peanuts..... 6 @ 6 1/2
Pink..... 2 25 @ 2 40	Filberts..... 10 @ 11
Large White..... 1 5 @ 1 85	Hickory..... 5 @ 5 1/2
Small White..... 3 25 @ 3 50	POTATOES.
Lima..... 1 60 @ 1 80	Early Rose..... 30 @ 45
Fid Peas, blkeye 1 60 @ 1 80	Chile..... 40 @ 70
do green..... 1 60 @ 1 75	Peerless..... 40 @ 65
do Niles..... 1 25 @ 1 45	Jersey Blues..... 40 @ 65
BROOM CORN.	River Reds..... 25 @ 40
South'n 1/2 ton..... 40 00 @ 60 00	Burbanks..... 40 @ 75
Northern..... 40 00 @ 60 00	Chaffey Cove..... 50 @ 70
CHICKORY.	Sweet..... 10 @ 1 00
California..... 5 @ 6	Tomatoes..... 60 @ 75
German..... 6 1/2 @ 7	New, sacks..... 1 @ 1 1/2
DAIRY PRODUCE, ETC.	do boxes..... 1 1/2 @ 2
BUTTER.	POULTRY AND GAME.
Cal. Com. to fair, lb 12 1/2 @ 15	Hens, doz..... 6 00 @ 8 50
do good to choice 17 1/2 @ 20	Roosters..... 5 50 @ 8 00
do Fancy brands 21 @ 22	Broilers..... 4 50 @ 7 00
do pickled..... 15 @ 18	Ducks, tame..... 7 00 @ 10 00
Eastern in tubs..... @ @	Geese, pair..... 1 50 @ 2 25
do in rolls..... @ @	do Goslings..... @ @
CREASE.	Turkeys, Goblr..... 11 @ 13
California, new..... 10 @ 13	Turkeys, Hens..... 14 @ 15
do old..... 9 @ 12 1/2	do dressed..... 14 @ 17
EGGS.	Rabbits, doz..... 1 00 @ 1 25
Cal. ranch, doz..... 18 @ 19	Hares..... 1 00 @ 1 75
do store..... 15 @ 17 1/2	Quails..... 1 00 @ 1 50
Eastern, lined..... 10 @ 14	Mallards..... 3 00 @ 4 00
Eastern, fresh..... 15 @ 16	Sprigs..... 1 50 @ 2 25
FEED.	Teal..... 1 25 @ 1 75
Bran, ton..... 13 50 @ 15 50	Small ducks..... 75 @ 1 50
Feedmeal..... 24 00 @ 26 00	Canvass back..... 3 00 @ 4 00
Gr'd Barley..... 19 00 @ 20 00	Gray geese..... 3 00 @ 3 50
Middlings..... 16 00 @ 17 00	Brant..... 1 25 @ 2 00
Oil Cake Meal..... 30 00 @ 31 00	PROVISIONS.
HAY.	Cal. Bacon..... 11 @ 12
Wheat, per ton..... 10 00 @ 14 50	Heavy, lb..... 12 @ 14
Wheat and Oats 8 00 @ 13 00	Medium..... 12 @ 13
Wild Oats..... 10 00 @ 12 50	Light..... 12 @ 13
Clover..... 10 00 @ 12 50	Extra Light..... 13 @ 14
Tame Oats..... 10 00 @ 13 00	Lard..... 10 @ 11 1/2
Barley..... 8 00 @ 11 50	Cal. Sm'd Beef..... 11 @ 12
Barley and Oats 9 00 @ 12 00	Hams, Cal..... 12 @ 14
Alfalfa..... 8 00 @ 10 25	do Eastern..... 13 @ 14 1/2
Straw bale..... 65 @ 90	SEEDS.
FLOUR.	Alfalfa..... 12 @ 12 1/2
Extra, City Mills 4 75 @ 4 85	Canary..... 4 1/2 @ 5
do City Mills 4 50 @ 4 75	Clover, Red..... 12 @ 13
Superfine..... 3 50 @ 4 00	White..... 20 @ 22
GRAIN, ETC.	Cotton..... 20 @ 21
Barley, feed, chl..... 76 1/2 @ 86 1/2	Flaxseed..... 24 @ 4
do Brewing..... 92 @ 96 1/2	Hemp..... 4 1/2 @ 5
do Choice..... 1 00 @ 1 10	Italian Rye Grass..... 10 @ 11
Chevalier cove 1 30 @ 1 40	Perennial..... 7 @ 9
do com to good 1 10 @ 1 20	Millet, German..... 5 @ 6 1/2
Buckwheat..... 2 75 @ 3 25	do Common..... 5 @ 6
Corn, White..... 1 05 @ 1 10	Mustard, yellow..... 13 @ 24
Yellow..... 1 10 @ 1 12 1/2	do Brown..... 24 @ 34
Oats, milling..... 1 12 1/2 @ 1 17 1/2	Rape..... 13 @ 2
Choice feed..... 1 10 @ 1 17 1/2	Ky. Blue Grass..... 14 @ 16
do good..... 1 07 1/2 @ 1 17 1/2	2d quality..... 13 @ 14
do fair..... 1 05 @ 1 17 1/2	Sweet V. Grass..... 75 @ 8
do Gray..... 1 05 @ 1 17 1/2	Orchard..... 14 @ 16
Rye..... 1 55 @ 1 70	Hungarian..... 7 1/2 @ 8
Wheat, milling..... 1 50 @ 1 55	Lawn..... 27 1/2 @ 40
Gilt edged..... 1 47 1/2 @ 1 48 1/2	Mesquit..... 8 @ 6
do Choice..... 1 47 1/2 @ 1 48 1/2	Timothy..... 6 @ 8
do fair to good 1 45 @ 1 46 1/2	TALLOW.
Shipping, choice 1 45 @ 1 46 1/2	Crude, lb..... 3 @ 5
do good..... 1 45 @ 1 46 1/2	Refined..... 6 @
do fair..... 1 40 @ 1 42 1/2	WOOL, ETC.
HIDES.	Humboldt and..... 18 @ 25
Dry..... 11 @ 11 1/2	Mendocino..... 15 @ 22
Salted..... 5 @ 8 1/2	Sac to valley..... 15 @ 22
HOPS.	Free Mountain..... 18 @ 24
Oregon..... 10 @ 15	S Joaquin valley..... 11 @ 19
California..... 10 @ 15	do mountain..... 13 @ 21
ONIONS.	Calav & Fth'l..... 15 @ 25
Red..... 60 @ 1 00	Oregon Eastern..... 13 1/2 @ 22 1/2
Silver..... 60 @ 1 00	do valley..... 21 @ 25
NUTS—JOBBER.	1888.
Walnuts, Cal. lb..... 7 @ 7 1/2	So'n Coast, def..... 10 @ 13
do Chile..... 9 @ 10	So'n Coast, free..... 11 1/2 @ 16
Almonds, hd shl..... 5 @ 6	San Joaquin..... 11 1/2 @ 16
	Mountain, free..... 15 @ 20

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations while very poor grades sell less than the lower quotations.

WEDNESDAY, Feb. 13, 1889.

Apples, bx, com..... 75 @ 1 00	do Green bx..... @ @
do Choice..... 1 25 @ 2 00	Parsnips, chl..... 1 00 @ 1 25
do Est'n, hbl 4 00 @ 4 50	Peppers, dry, lb..... 8 @ 10
Bananas, bunch 1 50 @ 2 75	do green, bx..... 6 @ 8
Cranberries..... 7 50 @ 10 00	Squash, Sum..... @ @
Limes, Mex..... 4 50 @ 5 50	mer, bx..... @ @
do Cal..... 75 @ 1 00	do M'w-fat in lb..... 20 @ 15 00
Lemons, Cal. bx 1 50 @ 2 50	String beans, lb..... 20 @ 25
do Sicily, box 4 50 @ 5 50	Turnips, chl..... 50 @ 50
Oranges, Com bx 1 00 @ 1 75	Beets, sk..... 50 @ 50
do Choice..... 1 75 @ 2 25	Cabbage, 100 lbs..... 40 @ 50
do Navel..... 3 25 @ 4 00	Carrots, sk..... 25 @ 30
choice..... 2 75 @ 3 70	Green Corn, cr..... @ @
do good do..... 2 75 @ 3 70	Green Peas, lb..... 4 @ 8
do do Com..... 2 00 @ 3 00	Sweet Peas, lb..... @ @
Pineapples, doz 4 00 @ 5 00	Mushrooms, lb..... 10 @ 35
Raspberries ch..... @ @	— Rhubarb, bx..... @ @
Strawberries ch..... @ @	Cucumbers doz..... 1 00 @ 1 50
VEGETABLES.	Garlic, lb..... 50 @ 1 00
Asparagus, lb..... 30 @ 40	Tomatoes, rv, bx..... 50 @ 1 00
do ext'l choice 50 @ 60	Egg Plant, lb..... 20 @ 25
Okra, dry, lb..... 15 @ 25	

GRANGERS' BANK

OF CALIFORNIA,
 SAN FRANCISCO, CAL.
 INCORPORATED APRIL, 1874.



Authorized Capital.....\$1,000,000
 Capital paid up in gold coin..... 624,160
 Reserved Fund..... 40,000
 Dividends paid to Stockholders..... 515,620

OFFICERS.

A. D. LOGAN.....President
 I. C. STEELE.....Vice-President
 ALBERT MONTPELLIER.....Cashier and Manager
 FRANK McMULLEN.....Secretary
 General Banking Deposits received, Gold and Silver.
 Bills of Exchange bought and sold. Loans on Wheat
 and country produce a specialty.
 Jan. 1, 1888 A. MONTPELLIER, Manager.

J. L. HEALD'S
 AGRICULTURAL WORKS,
 Crockett, Contra Costa Co., Cal.

Stationary Engines and Boilers.

Portable Straw-Burning Boilers & Engines.
 IRON AND BRASS CASTINGS.
 Machinery of all kinds furnished at shortest notice.

Heald's Patent Wine-making Machinery,
 including Grape Crushers and Stemmers, Elevators, Wine
 Presses and Pumps, and all appliances used in Wine
 Cellars. Irrigating and Drainage Pumps. Heald's
 Patent Engine Governor. Etc

A Treatise on the Horse and his Diseases

By B. J. KENDALL, M. D.



35 Fine Engravings showing
 the positions and actions of sick
 horses Gives the cause, symp-
 toms and best treatment of dis-
 eases. Has a table giving the
 doses, effects and antidotes of
 all the principal medicines used
 for the horse, and a few pages
 on the action and uses of me-
 dicines. Rules for telling the
 age of a horse, with a fine en-
 graving showing the appearance
 of the teeth at each year. It is printed on fine paper
 and has nearly 100 pages, 7 1/2 x 5 inches. Price, only 25
 cents, or five for \$1, on receipt of which we will send
 by mail to any address. DEWEY & CO.,
 920 Market St., S. F.

GOULD'S SPRAY PUMPS

With Bamboo Extension all fitted up, complete with Hose, Barrel and Spray Nozzle.



This cut shows in faithful operation our Gould's
 Spray Pump; they are utilized for spraying Fruit
 Trees, Orange Groves, Vines, and in fact, all Trees or
 Shrubbery infested with the destructive insects which
 infest and do so much injury in Orchards, Vineyards,
 Orange Groves, etc. They are made entirely of brass
 with the exception of frame and handle, and are
 strong and heavy; the valves being made entirely of
 metal will not be affected by the corrosive solutions,
 such as Caustic Soda, Acids, Lye, or any other solu-
 tion that may be used to kill the destructive insect.

NOTICE.—ONGERTH'S LIQUID TRAP PROTECTOR is
 the best Spray for killing Red Scale, Black Scale,
 White Cushion Cottony Scale, San Jose Scale, or any
 other insect.

Send for special circular and prices.

WOODIN & LITTLE,

509 & 511 Market St., San Francisco.

SYRACUSE PLOWS.

SULKY PLOWS.
 SIDE-HILL PLOWS.
 STEEL FRAME CULTIVATORS.
 SINGLE AND DOUBLE SHOVELS.
 HORSE HAY FORKS AND CONVEYORS,
 UNEQUALED BY ANY OTHERS MANUFACTURED.

Agencies in All Cities and Towns. Send for Free Illustrated Catalogue.

SYRACUSE CHILLED PLOW CO., Syracuse, N. Y.

DELINQUENT SALE.

Grangers' Bank of California.—Location
 of principal place of business, San Francisco, California
 NOTICE.—There is delinquent upon the following de-
 scribed stock on account of installment No. 7, levied on
 the 8th day of January, 1889, the several amounts set
 opposite the names of the respective shareholders, as
 follows:

H. J. Lewelling, Trustee for Lewis L. King, No.
 Certificate, 3067, for 50 Shares\$500 00
 H. J. Lewelling, Trustee for Clinton S. King, No.
 Certificate, 3068, for 50 Shares..... 500 00
 H. J. Lewelling, Trustee for Elva C. King, No.
 Certificate, 3069, for 50 Shares..... 500 00

And in accordance with law and an order of the Board
 of Directors, made on the 8th day of January, 1889, so
 many shares of each parcel of such stock as may be
 necessary will be sold at public auction, at the office of
 the Bank, Northwest corner California and Battery
 streets, San Francisco, California, on Thursday, the 7th
 day of March, 1889, at the hour of one o'clock P. M. of
 said day, to pay said delinquent installment thereon, to-
 gether with cost of advertising and expenses of the sale.

A. D. LOGAN, President.
 FRANK McMULLEN, Secretary.
 OFFICE—Northwest corner California and Battery
 Streets, San Francisco, California.

Engraving
 Superior Wood and Metal Engrav-
 ing, Electrotyping and Stereotyping
 done at the office of this paper

M. W. DUNHAM'S
 OAKLAWN FARM.

3,000 PERCHERON
 FRENCH COACH HORSES,
 IMPORTED.

STOCK ON HAND:
 300 STALLIONS
 of serviceable age.
 150 COLTS
 superior individuals, with choice pedigrees
 200 IMPORTED BROOD
 MARES
 (80 in foal by Brilliant, the most famous living sire).

ALL STOCK SOLD FULLY GUARANTEED.
 Best Quality. Prices Reasonable.
 Terms Easy. Don't Buy without inspect-
 ing this Greatest and Most Successful
 Breeding Establishment of America.

Address, for 250-page catalogue, free,
 M. W. DUNHAM, WAYNE, ILLINOIS.
 35 miles west of Chicago on C. & N.-W. R'y.
 between Turner Junction and Elgin.

H. C. SHAW PLOW WORKS.

MANUFACTURERS

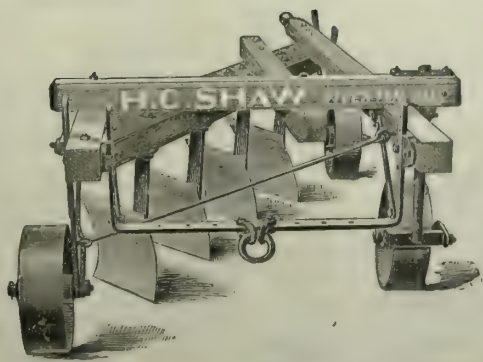
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SHAW'S SLIP-SHARE

Gang Plows.

REVERSIBLE MOLDS AND EXTRAS

For all kinds of Gang and Single Plows.



AGENTS

Celebrated MOLINE

Farm and Spring Wagons

And HEADER TRUCKS,

ALL SIZES.

Derby and Brighton Carriages & Buggies

NOYES CARTS, Etc.

SEND FOR ILLUSTRATED CATALOGUE.

365 & 367 El Dorado St.,

STOCKTON, CAL.

Seeds, Plants, Etc.

ORANGE TREES!

FOR 1889.

Great Reduction in Prices.

FIRST-CLASS TREES.

The Best Orange Trees are now within the reach of all planters. Genuine Riverside Washington Navels, of our own budding, and other varieties at about one-half usual prices. Navel Orange orchards \$300 to \$400 an acre. Orange and Vineyard lands at low prices.

Also Rooted Muscat Vines and Citrus.

Send for Circulars.

J. H. FOUNTAIN & CO.,
RIVERSIDE, CAL.**Japanese Oranges.**

See PACIFIC RURAL PRESS of Jan. 12, 1889.

Our Persimmons, Peaches, Oranges (four kinds), Cycas Revolutas, etc., are well rooted and thoroughly acclimated in our various nurseries in this State. Send for circulars. Japanese Tree Importing Co., 120 Sutter St. S. F.

ROSE SPRING NURSERIES,

Roseville, Placer Co., Cal.

We will send by mail, to any address in the United States:

10 Everblooming Roses, all different and named, for \$1.00.
10 Geraniums, all different and named, for \$1.00.
Also a large lot of other Dollar Collections.

Also will send by mail one-year old Vines of the shipping varieties at \$3 per 100. Cuttings of Grapevines of almost any variety delivered by mail at \$2 per 100.

Send for list of kinds to

E. BOOTH,
Roseville, Placer Co., Cal.**Fine Small Fruits a Specialty.**

CUTHBERT RASPBERRY.



BEST MARKET BERRY KNOWN! Large, Firm and Luscious, stands travel finely, bears immensely, and has two crops a year; 75 cents per dozen; \$3 per 100. Also Strawberries, Blackberries, Gooseberries, Currants, etc., of the finest imported varieties. Prices on application.

L. U. McCANN,
Santa Cruz, Cal.**DWARF JUNE BERRY**

Should be planted on every Farm and in every Garden in the United States.

An immense stock of New and Old Varieties of

Fruit, Forest and Ornamental Trees and Shrubs

Including the new-named varieties of

RUSSIAN APRICOTS

And all kinds of Small Fruits, Grapevines, Forest Tree Seedlings for Timber Claims at hard-time prices.

A paper devoted to Fruit Culture Free to all who buy \$1 worth of stock. Trees and Plants by mail a specialty. Three hundred acres in nursery within 60 miles of the center of the United States. Splendid shipping facilities. Send at once for price list.

CARPENTER & GAGE,
Jefferson County, Fairbury, Nebraska.**CYPRESS TREES CHEAP.**

Good Transplanted Monterey Cypress, 5 to 8 inches high, at \$1.75 per 100 or \$15 per 1000; larger sizes from \$2 per 100 upward. Monterey Pines, 8 to 12 inches, of 70 trees per box, at the rate of \$3 per 100; 12 to 16 in., of 50 per box, at \$4 per 100. Blue Gums, all sizes and prices (premium trees). Avicoria Melanoxylon 1 1/2 to 2 ft., at the rate of \$7.50 per 100; 2 to 3 ft., at \$10 per 100. Also last crop of seeds of above kinds. Nothing but first-class goods will be sent from this Nursery. All boxing and deliveries free to shipping points. Stamps taken for sample lots. Send drafts, Postal Orders or Notes to GEO. R. BAILEY, Park Nursery, Berkeley, Cal.

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FRESH and RELIABLE

SEEDS.

IT WILL BE TO YOUR ADVANTAGE, if you want PURE, TESTED SEED, or anything for ORCHARD, GARDEN, LAWN or PARK, to send for our BEAUTIFULLY ILLUSTRATED CATALOGUE, containing two COLORED PLATES; also all the desirable novelties. Sent Free on application.

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607 Sansome St., San Francisco, Cal.

DUANE WESTCOTT.

SAMUEL BRECK

HARDY NORTHERN-GROWN

SEEDS!

FROM MINNEAPOLIS, MINN.

—ALSO—

Grass, Farm and Garden Seeds, Plants, Trees and Bulbs in Stock.

Correspondence Solicited.

Catalogues Free.

WESTCOTT & BRECK,

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SAN LEANDRO NURSERY STOCK.

Ornamental and Shade Trees:

California Soft Maple, Lombardy Poplar, Pepper Trees in boxes and pots, two varieties of P. to-purum, Red Gum, Cypress, Monterey Pine, Roses and Shrubs. California Fan Palms, wholesale and retail.

G. TOSETTI,

San Leandro, Cal.

Fruit Trees for Sale.

Pear, Apple, Peach,

Walnut, Fig,

Japan Kelsey Plum and

other Trees and Plants.

MILTON THOMAS,

Los Angeles, Cal.

P. O. Box 304.

ROSES, TREES, PLANTS AND SHRUBS.

Send for our New Catalogue. Mailed Free

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POMONA NURSERIES.

1838. FIFTY YEARS. 1889.

Facsimile of trade-mark label attached to each and every tree of "Wonderful Peach." None reliable without it. Large stock of Raspberry, Strawberry and Blackberry Plants. Niagara, Moore's Early, Diamond, Edson and other Grapes. Kieffer and Lett's Pears. Spaulding and Japan Plums. Apples, Cherries, etc. All the worthy old and prompt new varieties. Catalogues Free.

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**FOREST TREES.**

Catalpa Speciosa, White Ash, European Larch, Pines, Spruces, Arbor Vites, etc. Catalpa Speciosa Seed. Forest and Evergreen Seeds.

R. DOUGLAS & SON
Waukegan, Ill.**91,700 ORANGE TREES**

Shipped to California last season and arrived in good condition. All the leading varieties. Largest stock in Florida. Send for Illustrated Catalogue. Special prices in large lots.

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Palm Springs, Orange Co., Fla.

Altamonte Nurseries.

GLEN ST. MARY NURSERIES.

Oriental and Southern Fruits. many of which are adapted to the extreme South and others farther North. The largest stock of Peach and Plum Trees ever grown in Florida, including many varieties of extremely early **Ultra Southern Peaches**. Ten varieties of **Oriental Plums**. A full line of Olives, Figs, Apricots, Pecans, Japan Persimmons and other fruits. The **Satsuma Orange** is the hardiest northern variety and one of the best. Send stamp for Illustrated Catalogue, Price List and Mailing List. Mention this paper. Address: **G. L. TABER, Glen St. Mary, Baker Co., Florida.**

A FULL LINE OF

Budded Orange and Lemon Trees,

AND SOUR SEEDLINGS,

2 yrs. old, at the

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OLIVE TREES.

One-year-old Picholine, in boxes; very large and fine.

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PEAR TREES FOR SALE.

3000 Bartlett Pear Trees, two years old, for sale. Address: **H. B. MUSCOTT, Box 84, San Bernardino, Cal.**

P. & B. IDEAL ROOFING

HAS NO EQUAL

IN THE WORLD

—FOR—

Cheapness and Durability.

WILL LAST FOR YEARS.

Cannot be Torn. Anybody can put it on.

No Coal Tar. No Odor.

SPECIALLY ADAPTED

FOR

Cattlemen, Ranchmen and Settlers.

**PARAFFINE PAINT CO.,**

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FRUIT TREES FOR SALE

—AT THE—

Capital Nurseries, Sacramento, Cal.

1,000,000 of the finest Trees ever offered on this Coast, in lots to suit, at lowest market rates. A complete assortment of Prunes, Plums, Apricots, Almond, Peach, Nectarine, Apple, Pear, Cherry, Orange, Lemon, Olive, Grapevines, Berry Plants, Shade and Ornamental Trees, Shrubbery, Flowering Plants, etc.; in fact, everything to be found in a first-class Nursery. We would call special attention to our immense stock of Orange and Lemon Trees. Extra fine stock of all the best known varieties, positively free from insect Pests. These fine Trees will be sold, either wholesale or retail, cheaper than ever before offered on this Coast. We can also supply any desired quantity of Magnolia Grandiflora Trees very cheap.

We are better prepared this season to supply all kinds of Nursery Stock than ever before. See our Stock and compare it with others before placing your orders, or correspond with us. **SPECIAL TERMS GIVEN ON LARGE ORDERS,** especially on Orange, Lemon and Magnolia Trees. We would also call special attention to our unusually large and complete assortment of all kinds of

FIELD, VEGETABLE, GARDEN, FLOWER, TREE and GRASS SEEDS.

Every kind and class of the best and freshest Seeds, both wholesale and retail, very low; also a complete stock of Flowering Bulbs. Send for our New Illustrated Seed and Tree Catalogue. It is the finest and most complete book of the kind we have ever issued. Sent free on application. Address all communications to

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NILES, ALAMEDA COUNTY, CAL.

LARGEST STOCK ON THE PACIFIC COAST.

Fruit Trees, Olives, Oranges and Lemons, Nut Trees, Wine and Table Grapes, Berry Plants, Shade Trees, Evergreens, Shrubs, Roses, Etc., Etc.

FOR COMPLETE LIST, SEND FOR OUR NEW CATALOGUE.

JOHN ROCK, Manager.

CALIFORNIA NURSERY CO.

Niles, Alameda Co., Cal.

FRUIT TREES! Established 1863. **FRUIT TREES!****THOS. MEHERIN,**

Agency of CALIFORNIA NURSERY CO., Niles, Alameda Co., Cal.

We have now for sale at Lowest Market Rates the Largest, Best Selected and Healthiest Stock of

Fruit Trees, Grapevines, Olives, Small Fruits, Etc., Etc.

Ever offered on the Pacific Coast, including all the new varieties, all grown on new land at the above Nursery and free from scale and other pests. Samples of the trees always on hand.

Seeds! Seeds! Seeds!

WE HAVE ALSO CONSTANTLY ON HAND A LARGE AND FRESH STOCK OF

Grass, Clover, Vegetable, Flower and Tree Seeds,

And Ornamental Trees and Plants, Bulbs, Roses, Magnolias, Palms, etc.,

AT LOWEST RATES. New Catalogue for 1888 mailed on application.

P. O. Box 2069

THOS. MEHERIN, 516 Battery Street,
SAN FRANCISCO, CAL.**The Lakeland Nursery Company,**

LAKELAND, POLK COUNTY, FLORIDA,

Offer their immense stock of Citrus Fruit Trees, all choice and healthy, at a bargain. Varieties strictly genuine and consist of the following popular kinds: Homosassa, Magnum Bonum, Nonpareil, Majorca, Jaffa, Mediterranean Sweet, Hart's Tardiff, Maltese Blood, Washington Navel, Du Roi, Sweet Seville, Centennial, Madam Vinous, Maltese Oval, St. Michael, Tony, Mandarin and Tangerine. Lemon, Sicily, Relair Premium and Villa Franca. Lime, Tahiti and Florida. Citron, Lyman. Sweet and Sour Orange, and Grape Fruit Seedlings.

Special prices quoted on large orders. Send for descriptive catalogue and price list to

E. H. TISON, Business Manager.

Surplus Stock.

PEARS, Bartlett and Winter Nellis.

PLUMS, Bradshaw, Columbia, Green Gage, Peach Plum, Washington and Yellow Egg.

Also a large stock of Gums, Cypress and Laurustinus in Boxes and complete assortment of general

ORNAMENTAL PLANTS. **Roses Our Specialty.**Send for Catalogue and Price List. Address: **GILL'S NURSERIES,**

Twenty-Eighth Street, near San Pablo Ave., OAKLAND, CAL.

Seeds, Plants, Etc.

SANTA ROSA NURSERIES,

R. W. BELL,

Successor to L. BURBANK,
LARGE STOCK of everything in the Nur-
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BARTLETT PEARS CHEAP.

New Zealand APHIS PROOF APPLES.

NEWCASTLE EARLY,

Best and Largest Extra Early APRICOT.

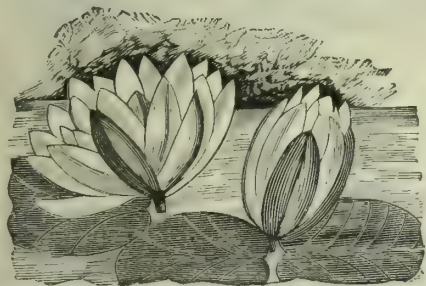
Picholine and Nevadillo Olives.

ASPARAGUS in Surplus.

Roses, Shrubs, Vines, Bulbs and
Flowers.

All our Trees Warranted Free from Scale,
and raised without irrigation.

WATER LILY ROOTS.



A limited number of strong roots of our native
(Eastern) fragrant Water Lily (Nymphaea Odorata)
for sale at \$4 per dozen or 50 cents each; sent C. O. D.
by express.

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PACIFIC NURSERY,

San Francisco, - - California,
Offers for sale this season the largest and
best collection of

Azaleas, Camellias, Rhododendrons,
Roses, Clematis, Araucarias, Palms.

Also Monterey Cypress, transplanted in boxes and open
ground; Monterey Pine, transplanted; Pepper Trees,
Juniperus Pittosporums, Veronicas, Fuchsias in great vari-
ety, and a fine collection of hardy Ornamental Ever-
green and Deciduous Trees and Shrubs. Eighty thou-
sand rooted Resistant Riparia Grapes. Olives, Picho-
line and other varieties. Guava, two sorts. Blackber-
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Trees in varieties. Address,

F. LUDEMANN,

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OVER 8,000,000 people believe that it
pays best to buy Seeds
of the largest and most reliable house, and they use

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D. M. FERRY & CO. are
acknowledged to be the
Largest Seedsmen
in the world.

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SEED ANNUAL

For 1889

Will be mailed FREE
to all applicants, and
to last year's customers
without ordering it. Inval-
uable to all. Every person using
Garden, Field or Flower Seeds
should send for it. Address

Earliest Cauliflower
in existence.
D. M. FERRY & CO., Detroit, Mich.

GENUINE WHITE ADRIATIC FIG Trees and Cuttings.

CABERNET SAUVIGNON,
CABERNET FRANC,
MATARO AND CARIGNANE,
RIPARIA, GRAPE ROOTS & CUTTINGS,
\$5 per thousand.

White Adriatic Figs grown and packed by me for sale
by Tillman & Bendel, S. F.

M. DENICKE, - - FRESNO, CAL.

SAN JOSE, Jan. 7, 1889.
M. Denicke, Fresno—DEAR SIR: The figs sent to me
to San Jose are very fine, and nothing has yet been pro-
duced in California to come any way near them. * * *
Inclosed are orders for 12 additional cases.
Very truly,
JOHN ROCK.

VITIS CALIFORNICA SEEDS.

Five pounds and over, \$1 per pound; less than five
pounds, \$1.50 per pound.

Vitis Californica Seedlings, Phylloxera Proof.
\$10 per 1000.

C. MOTTIER,
Middletown, Lake Co., Cal.

5000 One-Year-Old
CENTENNIAL CHERRY TREES
For Sale.
A. BOUTON, Healdsburg, Cal.

STOCKTON NURSERY,

Established 1853.

ADRIATIC and SAN PEDRO FIGS.

French Walnuts, Home-grown Oranges and Rooted Grapevines.

Illustrated Catalogue and Price List for the season of 1887-88 free to all sending for them. All Trees, Vines,
etc., guaranteed free from scale and other injurious pests. A certificate of inspection furnished to all.
A full line of Fruit and Ornamental Trees, Shrubs, Vines and Hothouse Plants.

E. O. CLOWES, Proprietor

(Successor to W. B. WEST),

Stockton, Cal.

INCORPORATED 1884.

460 ACRES.

160 ACRES NURSERY!

1,500,000 TREES AND VINES!

W. M. WILLIAMS & CO.'S

SEMI-TROPICAL AND GENERAL

NURSERIES

Fresno, Cal.

BRANCH OFFICE, No. 425 Eleventh Street, Oakland, Cal.

We would respectfully call the attention of the public to our very complete list of Nursery
Stock for the ensuing season, consisting of a full line of all the Standard Varieties of

APPLE, PEAR, PLUM, CHERRY, PEACH, APRICOT, NECTARINE, Etc., Etc.,

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WHITE ADRIATIC FIG,

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THE STODDARD BARREL CHURN.

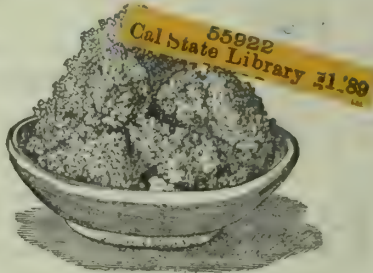
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PERFECTLY FINISHED BOTH INSIDE AND OUT.

SUPERIOR TO ALL OTHERS!



The above cut represents a bowl of butter as taken from the Stoddard Churn in "granular form." This method of handling butter is now practiced by the best butter makers of this country, and we give printed instructions with each churn we sell. The grain of the butter being perfectly preserved, also adds to its keeping qualities.

If you have never tried this method, get a STODDARD CHURN and commence at once, and see how much your butter will be improved in QUALITY and QUANTITY.

Although at first we found our customers attached to the old Box Churns many had used here so long, we succeeded in placing Barrel Churns in leading dairies in most localities, and these almost immediately created a demand for the STODDARD, which has required our importing them in full carload lots, and they are to-day almost the only churn a well-informed dairyman will consent to use.



By an ingenious device for fastening the cover, it is removed in an instant with one hand, and replaced as quickly. By pressing down on the handle attached to the eccentric, the inner ends of the levers are depressed, thus elevating the outer ends against the hooks; the outer rim of the cover being the fulcrum, thus pressing the cork packing on the inside of the cover on to the galvanized iron ringhead in the end of the barrel, making it air-tight. It never leaks.

The handle is so attached to the eccentric that it can be adjusted for any wear on the cork packing, increasing the pressure as the cork becomes worn, thus always making a tight joint.

It is simple in its construction, and has no parts liable to get out of order. Being air-tight, the cream is not affected by the temperature of the room while churning. The STODDARD meets the requirements of large or small dairies, and is offered at a price within the reach of all.

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No. 4. Twenty-five-Gallon Churn, churns from 4 to 12 gallons cream.....	12 00
No. 5. Thirty-five-Gallon Churn, churns from 5 to 16 gallons cream.....	14 00
No. 5 1/2. Forty-five-Gallon Churn, churns from 5 to 20 gallons cream.....	17 00
No. 6. Sixty-Gallon Churn, churns from 6 to 28 gallons cream.....	20 00

The above is an illustration of the Stoddard Power Churn, with heavy frame and tight and loose pulleys. We furnish these without frame when so desired.

PRICE LIST OF FACTORY SIZES,

Including heavy frames, iron bearings, and tight and loose pulleys as shown above.

No. 5 1/2. Forty-five Gallon Churn, churns five to twenty gallons cream.....	\$22 00
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No. 7. Ninety Gallon Churn, churns from ten to forty gallons cream with tight and loose pulleys.....	40 00
No. 8. One Hundred and Twenty Gallon Churn, churns from ten to sixty gallons cream, with tight and loose pulleys.....	60 00

Since the STODDARD BARREL CHURN has grown into such favor, dealers in general wares are preying upon its reputation by selling inferior makes simply on the strength of their being made on the barrel principle, but of poor material and cheaply put together, roughly finished, etc.

Every dairyman knows the importance of a perfect cover fastening, of sound material and careful finish, in a churn above all things, and as we can only find all these in the STODDARD we offer them instead of the cheap barrel churns other firms are urging upon their unsuspecting customers.

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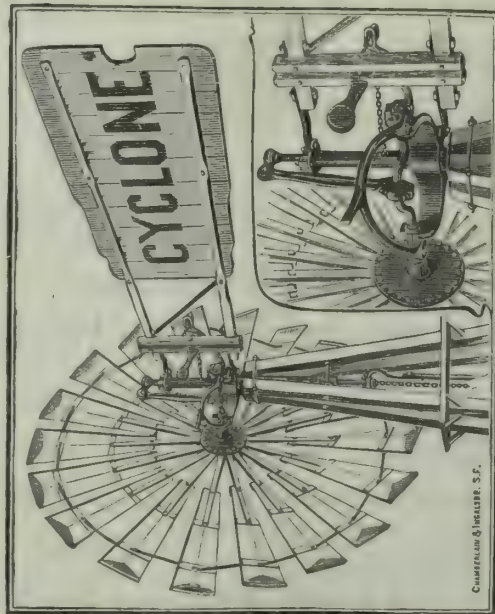
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PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol XXXVII.—No. 8.

SAN FRANCISCO, SATURDAY, FEBRUARY 23, 1889.

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Hawthorne and His Famous Family.

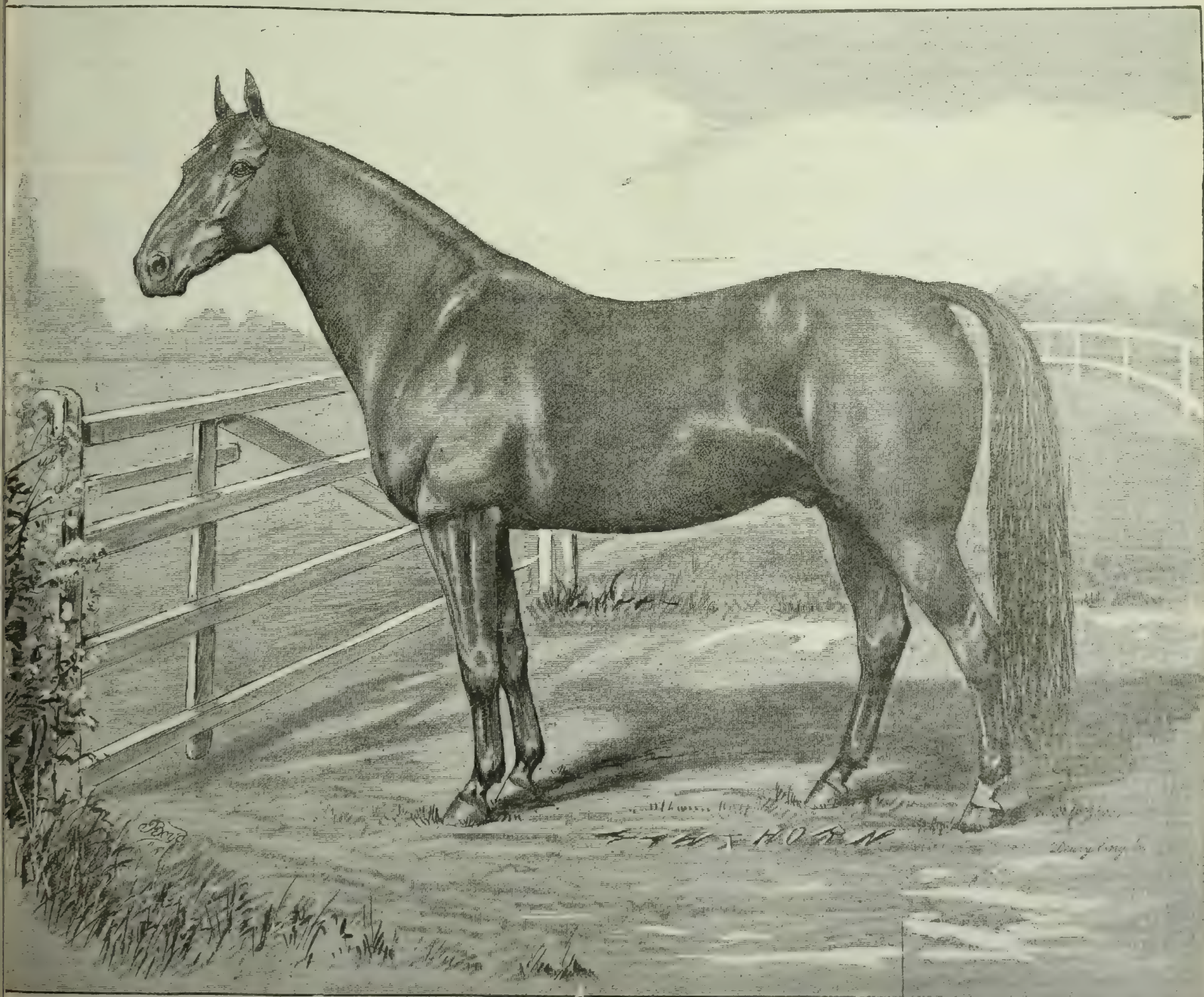
Speed in the horse was never such a valuable article as at present, nor the popular appreciation of it so widespread. The result is that all

of our most far-seeing citizens have for years given to the production of speed-horses, and with such notable success that California-bred trotters with good ancestry are being sought by breeders from all parts of the country.

place first Hawthorne, one of the most fashionable-bred trotting stallions in the United States, whose portrait adorns this page. Hawthorne was bred by J. W. Knox and brought to California as a weanling. He is now 11 years old,

lah I, by the same sire as Rysdyk's Hambletonian—making three crosses of Hambletonian.

Hawthorne's sire is a brother of Maud S (2:08½). Hawthorne has proved himself a great sire, and his progeny have brought high figures.



STANDARD TROTTER HAWTHORNE, OWNED BY L. U. SHIPPEE OF STOCKTON, CAL.

enterprising breeders who have secured good blood and used it wisely find their breeding enterprises more promising in point of pecuniary reward than they ever anticipated, because as the popularity of the best trotting blood grows, the demand to share in its possession naturally increases. California is enjoying now the fruits of investments and breeding skill, which some

We take pleasure in presenting to our readers this week portraits of two fine animals which are representative of the stud of one of our foremost breeders, Mr. L. U. Shippee of Stockton, president of the State Board of Agriculture and of the San Joaquin District Agricultural Society, of whose farms and stock an extended account is given on another page. We

a dark bay, 15 hands and 3 inches high, and weighing 1260 pounds. He is of splendid form and symmetry and is counted by experts to be one of the best exponents of the true trotting type. Hawthorne is by Nutwood, dam by Goldsmith's Volunteer (sire St. Julian 2:11½), by Rysdyk's Hambletonian. His granddam was by Rose's Abdallah Chief, he by Abdal-

A chestnut filly, ten months old and full sister to Tempest, who will be mentioned presently, has just been sold to Mr. Campbell of Kansas at a very long price. Mr. Shippee's estimate of Hawthorne's quality as a getter of trotters can be seen by reference to the description of his farm on another page, where a long string of
(Concluded on page 185.)

THE FIELD.

An Essay on the Jackrabbit.

In writing about jackrabbits I am conceited enough to say at the outset that I am convinced that if every farmer knew as much about the rodent as your humble servant he would not be so numerous by a considerable majority. Of course, I don't claim to know all about him, nor half for that matter, but I have killed so many of him that my experience has taught me considerable not known to ordinary people, and I will try in this short paper to show up a few points on the subject.

The excuse I offer for looking into the subject of jackrabbits is that they are the greatest pest known to the farmer in California. We who raise wheat on a large scale do not notice their ravages so much; but they eat and destroy lots of grain just the same. I heard a Williams farmer say once that six jackrabbits would consume as much wheat as one sheep. This is probably so, although they eat a few grains here and there so as to leave scarcely a mark. But if all the jackrabbits in a big field would congregate and eat in one place, it could be seen easy enough, to say the least. Now a man who understands something of their queer ways can take his gun and dogs and kill four times as many jacks as a person who knows nothing about the subject; and it affords true sport, too.

Our jackrabbit is really a hare, but it differs from the English sort. There are a good many species, and may be more than one in California for all I know. As close to us as Arizona there is a gigantic species which looks as big as a burro off a ways. If this fellow can eat as much and bark trees as high in proportion as our own little specimen, he would be a bad sort of giraffe to have round. There is a hare called Bairds, I believe, that is a curiosity in the animal world from the fact that both the male and the female suckle their young. The Australian rabbit we hear so much about has been taken there only a short time from England. The Englishmen imported him for sporting purposes, but he found such a congenial home in the bush and multiplied at such lightning rate that big sums are now being offered by the Australians to any one who will put a brake on.

I don't know whether Pasteur's manufactured disease worked exactly right or not, but not long ago I saw in the press that he had acknowledged the receipt of \$25,000 for his pains. Apocryphos of this there is a dreadful disease natural to the rabbit that now and then lays them out by the thousands. Not long ago in Eastern Oregon it got among them and raged with such violence that it devastated the entire vicinity. Rabbits were found dead in all directions. There is at present a standing offer of \$100,000 in Australia to any one who will produce a thorough remedy. Might not this rabbit plague work as well at the antipodes as it did in Eastern Oregon?

If we ever go to raising trees and vines in this upper country, we will feel the necessity of getting rid of every rabbit possible. One rabbit can ruin a tree worth \$5 or \$10 in a single night, by putting a ring around it. The best way to hunt these successfully in this part of California is with a shotgun and three dogs—two hounds and any ordinary sort of mongrel to scent them out of their forms; then, if the hunter knows some of their nature, he should bag every three out of five, if they are not too thick. That particular trick called doubling, which is practiced by some animals that rely on strategy and swiftness of foot for escape, is understood to perfection by the hare. He can beat a foxhound at this game, because he is smaller and swifter and can take advantage of any little bunch of weeds or inequality of the ground to dodge behind and regain his old trail. Even on perfectly level ground, where there is nothing to work around, the hare can out-dodge anything in existence, and the reason is not far to look for. His ears, which amount almost to wings, do the business. By a slight adjustment of one or the other he is aided to the right or the left like a dart. The movement is so slight and quick as to hardly be discernible, except when the hare is nearly run down, when the movement of the ears is correspondingly slow and can be seen by any one.

This is why a single hound, no matter how swift, is always at a great disadvantage, and will soon wear himself out if allowed to chase rabbits unaided; he having to wear the jack almost out before picking him up, unless by a happy chance. The originators and breeders of the hound should have bred for a tail (his steering apparatus) four inches broad and light and flat, if they ever intended for him to keep pace with the twists and turns of the hare.

Jackrabbits hardly ever double their trail unless very closely pressed. When the man with the gun and dogs jumps a specimen and the hounds crowd him into a hard, straight away race toward a patch of weeds or other cover, it is the hunter's place to get as near as possible to the trail where he first struck cover. As soon as the jack has made a successful dodge behind a weed or the like, he is going to come back in his tracks as fast and as close to the ground as ever he can leg it. Then is the time to use the gun or an extra brace of dogs. Another rabbit trick which fools the dogs, and often the hunter, is the advantage taken by a jack of a ravine when hotly pursued. This is akin to doubling, and consists in running the

opposite way from that which the hare is pursuing when he disappears down the bank. To make it plain, we will suppose that the rabbit comes to a ditch running east and west. As soon as he arrives on the bank, he will turn and shoot down toward the west, but the instant he is under cover of the bank, he wheels in his tracks and runs east. Now is the time for the man with his gun, if he can cut across and strike the ditch before the jack has passed. This stratagem throws hounds off the course worse than anything else, for they imagine that the jack is just ahead of them, running west at an alarming rate of speed, because they judged from the direction that was taken down the side of the ravine.

A very smart trick, sometimes palmed off by old jackrabbits with lumps on their sides, and who, in consequence, are not so fleet of foot, is, when ousted from their nests by dogs, to run directly over every other rabbit lair in their reach, thus getting such a variety of candidates in the field running in different directions, that the poor dogs are puzzled half to death, during which time the schemer usually escapes. The most remarkable thing I have ever seen a jackrabbit do is to sneak into a patch of milkweeds, throw his head out at an angle and let his ears half down from an erect posture, so as to represent almost exactly the long leaves of the weed. This trick alone should give him top rank among animal strategists. It must have taken ages of past experience for the jackrabbit to perfect such a trick as this.

A defect of the rabbit not known by every one is the fact that from his eyes being placed directly opposite on the sides of his head, he is unable to see an object directly in front, and in consequence not unfrequently butts out his brains while running from dogs against small trees, stakes and the like. When the hare wants to survey an object of curiosity he sits up sideways and uses one eye (presumably the best one) for the work. The hunter who understands this when a jackrabbit is coming directly toward him, whether slow or fast, remains motionless, for he knows that, unless the jack has his wind, he will almost run afoul of him before taking the hint. I have knocked over more than one with a club by taking advantage of this defect. Quite an advantage can be taken by the hunter if he notices which way the jack runs when first started from his hiding-place. If he starts to run straight ahead, he is not going to stop, and the quicker you shoot the better; but if he starts off at either right or left angle he is nearly sure to stop after taking a few hops, thus giving a better chance to the shooter. After all his bad points have been summed up—his tree-barking and vine-eating, his bad watermelon record and moonlight picnic in the family garden—there still remains something to his credit. He is at least a game little animal and he gives an open, straight-away race as long as he can, never taking cover or doubling until the swift hound is rushing him too far beyond his power.—Williams Farmer.

FLORICULTURE.

The State Floral Society.

Rare, beautiful and fragrant flowers graced the rooms of the State Horticultural Society February 8th. They were the offerings of the members of the State Floral Society, who met in monthly session. Beneath a spreading fern the specimens were grouped in harmonious order. Camellias, roses, poppies, double wall-flowers, blackberries with blossom growing and ripe fruit in one branch, and double lilies were features of the large exhibit.

The attendance was much larger than usual, and all indications pointed to the fact that interest in the floral society is steadily growing. Very many ladies were present, and a number of the best known nurserymen had seats in the foreground. Professor Wickson presided. He said the thanks of the members were due to those who had so kindly contributed the flowers. To the different specimens were attached cards bearing names and addresses as follows: Mrs. L. U. McCann, Santa Cruz, early harvest blackberry; Mrs. C. N. Farnan, native fern; P. R. Cunningham, Fruitvale, Papa Gontier; State University, garriga elliptica, Rautzia fragrans, salvia splendens, photinia glabara; Mrs. G. P. Rixford, camellias; David J. King, poppies; E. Gill, camellias; Mrs. L. O. Hodgkins, double wallflower.

Messrs. Stratton and Miller, who were appointed to procure some flowers for displays at the proposed exhibitions of the society, reported nothing had been done, the members not having had a meeting. The committee was instructed to report the best plan for an exhibition. All of the members were in favor of giving exhibitions two or three times a year, and they will work to make the shows successful. It was finally resolved that the matter of exhibitions be determined at the next meeting, and the following were appointed to make the necessary arrangements: Dr. C. B. Brigham; J. H. Sievers, Mrs. G. P. Rixford, Mrs. L. O. Hodgkins, Mrs. Blanche Pratt and Emory E. Smith. These ladies and gentlemen will co-operate with the old committee, Messrs. Miller, Stratton, King and Parker. The exhibitions will be conducted as cheaply as possible, and

the members will do what they can to assist the society by sending in choice flowers free.

An hour was devoted to papers and discussions. Dr. Lorenzo G. Yates of Santa Barbara sent in an interesting paper on "Easily Grown Ferns," which was read by Prof. Wickson. Dr. Yates knows more about ferns than any other man on the coast, and his papers have attracted much attention. Fact and fancy joined make the paper a most interesting one, as entertaining to the general public as to flower-growers. Where legend and tradition gave scope for fanciful description, Dr. Yates was very pleasing. The stories the ancients had of the fern were told, and the strange ideas our forefathers had of the manner in which it was propagated were subjects of interest. The best and easiest manner of growing the fern and its favorite soil were discussed. Dr. Yates asks those who are interested in the cultivation of ferns to communicate with him for an interchange of ideas.

Some of the members related their experience with the fern, so extensively imported from the East, and with no very good results. In the opinion of some the tree fern had been given a too prominent position in the garden, where it did not have the proper protection. The fern grows best in the shade, in cool, damp soil. Cold does not kill it, and the sun is a great enemy of the plant as frost. The wind when it sweeps over the tree fern shrivels the leaves and leaves the plant dead.

Dr. C. B. Brigham read a paper on exhibitions of California flowers. In his opinion, an instructive and interesting display could be made in this State. Certainly no section of the country could show a greater variety. He suggested that the showcases should be as plain as possible, as painted woodwork detracted from the beauty of the flowers. Glass bottles sunk in a bank of moss would make the best receptacles. The paper of the doctor was received with favor.

Mr. Stratton thought every flower should have a place of its own in the exhibition. He was also in favor of having the shows conducted by amateurs, but Dr. Brigham thought the assistance of florists should be asked.

At the next meeting A. L. Bancroft will read a paper on "Horticultural Registers," "Roses—How to Grow Them," will also be discussed.—Chronicle

HORTICULTURE.

Fruit Study in California.

EDITORS PRESS:—Owing to the unfortunate way we are taught in the public schools, but few people are able to study anything new without great loss of time and effort. To-day there are thousands of people in California who would be glad to study fruit culture if they but knew how to do so.

The law provides for a State Board of Horticulture and for the publishing of reports which are to be sent free to any citizen in California applying for them. These reports are, perhaps, of more value to our fruit-growers than one-half of the works on fruit culture which are for sale in the bookstores; but I think it would not be at all difficult to make them of immeasurably greater value at little, if any, more expense. The first thing to do is to classify our climates and locations. A place in California may be hot, warm, temperate, cool, or quite cold; it may be very wet, moist, medium, dryish, or very dry; it may be on a mountain, a plateau, a foothill, a mesa, or in a high or low valley; it may be exposed or sheltered; it may face any point of the compass; it may be irrigated, get seepage from hills or from ditches or from streams above or under the ground; it may have almost any variety of soil or subsoil; and last, but not least, it may get almost any kind of culture in regular or irregular doses. What folly it is, then, for one who is not acquainted with the climate, location and soil of a place to attempt to say what fruits will or will not do well there.

What would be the best way, then, for the State Board of Horticulture to gather and put into shape what we fruit-growers have learned about California fruits?

I do not know whether I can answer this question correctly, but something like the following would be my plan: Select a fruit for special study, let us say the apricot. Prepare circulars containing questions with a space after each question for the answer. Send these circulars to every grower of apricots to be found in California who will be likely to try to answer the questions carefully and truthfully from his own personal experience and not from hearsay.

These questions should cover every necessary fact about the climate, location, exposure, soil and culture of the writer's apricot orchard; the varieties he has tested, and their comparative value in drying, canning, or for shipping or table use; the root stock of his trees; the age when planted and the date of planting; the distance apart and the bearing of outer trees compared with those near the center of the orchard; the number of pounds each variety bore (approximately) at different ages; the prices obtained for green, dried or canned fruit; the method of handling and marketing the fruit and the cost; the waste in canning and drying; facts about sulphuring and plan used; the culture (including irrigation, if any,) given to the

trees; the pruning and how it was done; and the enemies of the apricot and how to combat them. These answers should be printed in tabular form, and if several hundred were properly classified, almost any one could come to a pretty correct decision as to whether apricots would or would not pay upon his place, and what kinds it might be well to plant.

Experience With Apricots.

Let me give a bit of personal experience. My place is a mountain valley in Ventura county, 16 miles from the ocean and about 1200 feet above the sea. The canyon faces the south and is from 200 to 500 feet wide, with hills east, north and west about 500 feet above the valley. The ocean lies west, the Las Posas valley and the Conejo mountains south. Climate warm and almost frostless. Rainfall from 12 to 20 inches, usually. Not very much fog nor hard winds. Soil very deep and rich and gets winter drainage from the hills. No water, but plowed ground is always moist. In 1884 I planted the following varieties of apricots on peach root one year old, viz.: Early Golden, Large Early, Hemskirk, Moorpark, Peach and Royal. These varieties all do well eight miles from here in the adjoining Santa Clara valley, and were selected by the advice of growers there. The crop in 1886 was not worth mentioning, though I got quite a few Royals. The Early Golden is a complete failure to date. The Moorpark and the Peach apricot averaged eight pounds to the tree in 1887, and about double that in 1888, but were quite large and fine.

The Hemskirk gave me 50 pounds in 1887 and more than twice that in 1888. The fruit was fair size, easy to dry, and good when dried, but poor when eaten from the tree. The Royal gave me 50 pounds in 1887 and from 80 to 250 last year; fruit small, but very nice and sweet, and very good, either fresh, dried or canned. The fruit planted nearest the head of the canyon was better than that planted half a mile below (my orchard is a mile long). The first trees were planted 20 feet apart, but they crossed branches in two years, so they should have been planted at least 30 feet apart.

I have been unable to see any difference in the bearing of those I prune or those I leave untouched, but the pruned trees do not break so easily and the others are easier to pick from. The trees that bear the best, split the easiest at any time of the year. The birds—my apricots' only enemies—batter the Royal apricots the most and the Hemskirk the least. Many of the trees have leaves on yet (Feb. 8), especially those which were closely summer-pruned. The limbs are far redder than in the valleys below, and the fruit is about two weeks later, owing to their keeping the leaves on a month or two longer, I suppose.

All the trees lean toward the sea breeze, which is turned here by the hills into a south wind. The fruit is sweeter than the valley fruit and has a higher flavor, but is not so large nor so juicy and does not, as yet, bear as much to the tree, though as they are making much greater growth, that may be better as they grow older. Still, I do not think the place so well adapted to apricots as to peaches and some other fruits.

Now had I known in 1883 what I know now about the relative value of varieties, I should count myself many hundreds of dollars better off. Like conditions must produce like results, and those who plant trees could know fairly well what to plant if they had access to the experience of those who planted in a similar climate to their own. There is more difference in climates than in soils.

The apricot requires a deep, rich, well-drained soil. But after that is had, it requires still more. Each variety has its own choice of climate where it does the best, and it would not be at all difficult for the State Board of Horticulture to gather and arrange information of the right kind, etc., for each climate, and make the most valuable book to California fruit growers that has yet been published.

Springville, Ventura Co. C. M. DRAKE.

Cross-Fertilization of Almond Varieties.

EDITORS PRESS:—There is a question I would like to ask your readers that may know what I wish to, and that is, who has had any experience with the different kinds of almonds planted for the purpose of cross-fertilization of blooms, to get better results? I will say that the Standard and Languedoc planted alternately will yield double what they will if each is planted by itself. I saw that at Mr. W. W. Smith's at Vacville last June. He had 12 trees in a row—6 Languedoc and 6 Standard, and where the two varieties were the nearest, the trees were the heaviest loaded, and the farther away, the lighter. So at the extreme ends of the row there was about half as many as at the center. Mr. Smith informed me that was the case every year.

Now I do not consider the Standard as good a variety as some others we have. So I ask the question, has any one tried the I. X. L. and Languedoc or the Golden State and Languedoc or either of these varieties with the Drake's Seedling or others? This is a subject every one is interested in that intends planting almonds, and any information on the subject will be thankfully received in this section.

Woodland. J. E. SPRINGER.

[There has been much observation on this

point, and we hope every almond-growing reader of the *RURAL* will write his experience with the close association of any two varieties of almonds.—*EDS PRESS*]

Growth of Trees Without Irrigation.

EDITORS PRESS:—The following are measurements taken at John Rosenberger's place, Antelope valley, Colusa county, Cal., by an agent of the *RURAL PRESS*. All these trees were planted in first-class valley soil and grown without irrigation:

Fig tree planted in 1874: Top 30 feet high by 30 feet in diameter; trunk 67 inches around at smallest place within 2 feet of the ground.

California walnut planted in 1882: Top 25x25 feet and trunk 37 inches in circumference; measurement taken on same plan as with fig.

English walnut planted in 1884: 19 inches in circumference and 16 feet high.

In vineyard near the house an average Tokay vine of six years' age had a trunk 13 inches in circumference.

As this is an undeveloped fruit section, where many thousand acres of such land can be had at its value for wheat culture, your correspondent would be glad to know if these are fair average growths without water. The annual rainfall for past ten years has averaged 21 41 100 inches.

F. S. CHAPIN.

Sites, Feb 13 1889

SWINE YARD.

The Swine Industry—No. 2.

[Written for the *RURAL PRESS* by J. R. F.]

Country-cured hams and bacon are, as a rule, discriminated against by the trade. This prejudiced feeling is due to the cuts not having been properly trimmed and cured for in California's earlier days. The writer has seen as well trimmed and cured country hams and bacon as can be found in any city-packed. It is quite difficult to lay down fixed rules for cutting, trimming and curing, for very much depends upon the condition of the hog, whether fat or moderately fat; but the following will probably serve the most purposes:

After the carcass has been dressed and hung long enough to cool off so as to allow cutting to be done smoothly, the head is cut off, then the ribs are cut with a sharp hatchet close up on each side of the backbone, after which, follow the course of the hatchet with a keen, sharp knife, cutting off the two sides, leaving the backbone strip. Some call the strip the "chine." From the latter, tear off the fat for lard, after which, if desired to cure, cut it in three pieces. Then the hams and shoulders should be cut off and neatly trimmed. This should be done with the utmost care so as to bring out smooth and attractive-looking cuts. In trimming the hams and shoulders, the fat cut off should be put in one vessel to try out for lard, and the lean mixed with fat put in another vessel to make up into sausage. The sides or "middlings," if desired to be marketed, should be cut up in convenient sizes, taking care to have each piece of as uniform thickness as possible. But before doing this, the tenderloin should be torn from the sides. The tenderloin is generally eaten fresh or made into sausage. The head should be cut into halves. Put the jowls in with the meat to be cured. From the faces, trim the eyes, ears and snouts. Some of these can be put in with the jowls, and with the remainder the following can be done: Boil one face, one heart and one liver until the meat drops apart, which strain; then pick out fragments of bone, run the meat through the sausage-mill, season to the taste, when you have what is known as "pudding." This fat to be heated when eaten. The water in which the above was boiled can be utilized as follows: Thicken it to about the consistency of mush, with three parts of cornmeal and one of buckwheat meal or flour. This mixture should be put into shallow basins, and, when desired for use, it should be cut into slices and fried. This by those who make it is called "scrapple," and is considered quite a delicacy.

Returning to curing the meats: If it is desired to have the hams and shoulders sugar-cured, the following is claimed to be the best process: Dry-salt them on a table, bench or raised boards in the cellar with the following mixture: 10 pounds of good packing salt, 4 pounds of brown sugar and 2 ounces of saltpeter to each 100 pounds of meat. Lay the outside down, and rub on all of the mixture you can make stay on. This should be repeated as often as it is absorbed. As a rule, only four or five applications are required. In from four to five weeks they will be ready for smoking. Smoke them a nice brown. Let them dry off well, after which put them in a bag. After bagging, the bags should receive a good coat of whitewash, and hang them up in some cool, dry place, and no one will know them from the best city cured. They can be kept in the bags until ready for market, when they can be boxed and taken to the nearest trading point to be sold.

It is claimed by experienced packers that side pork is better dry-salted than if put in brine. For this mixture it is only necessary to use one-half of the quantity of sugar that is

used with hams. Pack the sides in a cask with plenty of salt, and brine will form. Keep them in the casks from six to eight weeks, after which time they can be hung up in the smoke-house until ready for use or marketing.

There is a very palatable dish made on many farms, viz., souse. This is usually made as follows: Take the ears, feet and nose, and, after scraping them well, soak them in cold water for several days. At the end of that time they should be scraped again, washed and put to soak in fresh cold water for a day or two longer, when they are taken out, and, together with a hog's head, put into a big kettle and boiled until the meat may be easily separated from the bones. They should be boiled in plenty of water so that the oil may rise to the top and be saved, for hog's-foot oil is considered very valuable on a farm. When the meat is thoroughly done and the oil has been removed, the former is taken up in wooden bowls, the bones carefully picked out, the mess well kneaded so as to make it smooth and light-colored, and the whole seasoned to the taste with salt, pepper and sage. Before it is cold, it should be poured into molds, where it assumes the consistency of jelly. This is considered quite a delicacy.

To make good lard is quite a science, but when one is initiated into the art it is easily done. The day following the killing of the hogs, the fatty portions are rendered into lard. The fat should be divided into three classes—the entrail, the leaf and the meat lard. When the entrail lard is carefully prepared, it is as white as any; but, although perfectly sweet and free from any unpleasant flavor, it does not keep as long as the other two kinds, and therefore should be used first. What is called "leaf lard" lies in flat, white slabs close to the ribs on the inside of the hog. This is almost pure fat and cooks quickly. Meat lard is made from fat meat, and, owing to its taking longer to render or try out, has a creamy color. The secret of making nice lard consists in washing each piece thoroughly in cold water, removing all impurities which will tend to discolor it and having the boiling kettle scrupulously clean and free from rust. The kettle should contain a few gallons of boiling water when the fat is dropped in. The latter should be frequently stirred to prevent it sticking to the bottom or sides of the kettle and to prevent scorching. Experienced makers of lard put soda into the lard when the water is nearly evaporated. The right proportion is about one tablespoonful of soda to three gallons of lard. Before using, the soda should be dissolved in a few spoonfuls of water, and put in a small quantity at a time, for fear the effervescence would cause the liquid to boil over and thus set the whole on fire. The advantage in using soda is said to be that it makes the grease come out of the cracklings and neutralizes any acid they may contain, thus making the lard keep better. When the cracklings assume a light-brown color, the kettle should be removed from the fire, the clean lard then drained off to cool and the cracklings pressed. By the more experienced lard-makers it is asserted that pure lard will not boil, therefore as the bubbles grow faint the lard is said to be cooked enough.

Sausage is a dish made in various ways. In this city, retail sausage-makers take about one-half of lean beef and one-half fat pork, and, after running them through the sausage-mill separately, then run them through together so as to mix the two ingredients. On the farm, the best and most approved method of making sausage is as follows: After the trimmings and tenderloin—the greater the proportion of the latter the better the sausage—have been run through the mill, the meat is spread on a table and the seasoning is thoroughly worked in in the following proportion: To every nine pounds of meat use three teaspoonfuls each of salt and pepper—if no pepper is used, then three of it to six of salt—and twelve teaspoonfuls of powdered sage. The teaspoon should be full, not heaped up. Take a cake of the sausage and fry it to test the seasoning, and, if suited to the taste, then run the meat again through the mill so as to more thoroughly mix in the seasoning. After this, pack tightly in jars and pour melted lard over it to exclude the air, and then set the jars in a cool place until the sausage is required.

To Swine-Breeders.

EDITORS PRESS:—The following circular letter to the swine-breeders of America has just been issued by the Executive Committee of the National Swine-Breeders' Association:

The last annual meeting of the National Swine-Breeders' Association was one of unusual interest. The Executive Committee is about publishing the papers read on that occasion by Prof. W. A. Henry of the Wisconsin Experiment station; Prof. J. W. Sanborn of the Missouri Agricultural College, and J. W. Pierce, Esq., of Peru, Indiana, together with the discussions following each; also the other proceedings of the meeting in full. The report will contain also a complete list of the members of the association to the date when the last pages go to press. To each member will be sent, postpaid, a copy of the report as soon as issued.

The constitution of the association provides that any reputable breeder or feeder of swine, or any State swine-breeders' or swine record association, may be admitted to membership in this association by the payment of \$1. The annual dues of members are \$1 each. The

list of members has been growing steadily each year, and now with the brightest outlook before them that American breeders have had in many a year, there is no reason why they should not take new courage and join hands in the National Association for mutual aid and instruction in the most approved methods of placing on the markets of the world the best pork products that intelligence and skill can supply.

PHIL M. SPRINGER, Sec'y.

Springfield, Ill.

THE APIARY.

Bees and Fruit.

EDITORS PRESS:—In a recent issue in an article on the date-palm of Mr. Wolfskill's propagation, I note what is said of the difficulty of fertilizing the fruit blossom. Allow me to suggest to this venerable horticulturist, and others interested in the cultivation of this valuable food, an idea. I am of the opinion if a few swarms of bees were located in near proximity, say a quarter or a half mile, there would be no failure on the part of the fruit to perfect 90 per cent of the berries. The busy little bee going from the male to the female plants with his basket of pollen and rubbing about in the flora of each completes the work which Nature for some reason has left to be performed by an outside agency. The date must be, I am quite sure, a honey-producing plant.

Note the economy of the method I propose. While it eclipses in its completeness the bungling manipulation of the human species, it also harvests the nectar which would otherwise be "wasted upon desert air." The prejudice of fruitmen is so strong and deeply rooted that I fear my suggestions will go unheeded. Often a bigoted people in the present stage of progress and radical change lay a charge at the door of innocence and persecute even unto death. If the sins which are charged to the busy bee were laid at the doors of the guilty, our friend might escape; but the fact that he is found in bad company condemns his case without further investigation. Remove all birds and other pests that prey upon your fruits, and convert your orchards into an apiary, and I'll wager you suffer no loss. Our best authorities claim, and I think correctly, that the bee never punctures the fruit, but follows rapidly any other agency which has commenced the work of destruction, repairing the damage so far as his manipulations are concerned by collecting the nectar and sealing it in the tiny jars for the future use of his persecutors, who in their blindness and ignorance heap indignities upon his defenseless head for these good offices.

As the Scotch poet says, "Man's inhumanity to man makes countless thousands mourn," so his inhuman treatment of his benefactors in the brute and insect life is the cause of untold mourning.

Canfield Bee Ranch, Baker-field

Loss of Queen.

EDITORS PRESS:—It is a matter of great importance to a bee-keeper to know at once when a queen is lost. During the months of May and June the loss of a queen from the hive a single day will make quite a difference in the honey crop. A queen is supposed to lay about 3000 eggs a day, therefore a hive that is queenless for only one day will be just that number of bees short, and if this happens during a honey flow, of course there are that number less to gather the crop. Be careful not to drop the queens off the combs when handling them at this time of the year. A queenless hive may be known by the way the bees are acting on the outside; if they are standing about on the alighting-board without any bees going in with pollen, it will be best to open the hive and take a look at them. If you find eggs and worker brood, you may be sure a queen is there; but if no eggs or brood is there, the hive has probably some kind of a queen that does not lay. If you do not find one, give them a frame of brood and eggs from some other hive, and if they have no queen they will commence to build queen-cells within 24 hours. When you see these, give them a queen at once, or if none are to be had, they may be allowed to raise one. More hives become queenless from queens being lost on their wedding flight than from all other causes together; so it is well to know at once when this happens.

Feb 13th. Bees should now be busy gathering pollen and breeding and drones flying. I noticed drones flying in my apiary on Jan. 25th. Should be glad to hear, from any other Californian bee-keeper, the earliest date of drones' flight.

W. STYAN.

San Mateo.

Honey and Beeswax.

From the annual review of the honey trade just issued by Schacht, Lemoke & Steiner, we take the following:

A fair crop of honey has been gathered and marketed this season. The quality has also been up to the average, and the price has ruled high enough to be satisfactory to apiarists and dealers. So far as present prospects can be read, the outlook for the next crop is equally good, although fears for a small crop are already entertained. From the 50,000 or 60,000 stands in California, for the year 1888, there was marketed 3,000,000 lbs. extracted honey

and 500,000 lbs. comb honey, or a total of 3,500,000 lbs. for the season. This result compared with former seasons is favorable, as the following figures evidence: 1887, 1,200,000 lbs.; 1886, 5,000,000 lbs.; 1885, 1,250,000 lbs.; 1884, 9,000,000 lbs. A great proportion of this season's crop was shipped by steamer or rail, direct from the apiaries to S. F., as the following statistics show: Extracted, 1,200,000 lbs.; comb honey, 300,000 lbs., or a total of 1,500,000 lbs. This also compares favorably with the receipts of former years, viz.: 1887, 1,300,000 lbs.; 1886, 2,500,000 lbs.; 1885, 2,000,000 lbs.; 1884, 3,600,000 lbs.; 1883, 1,400,000 lbs.; 1882, 1,000,000 lbs.

A better demand and higher price of the article caused much larger shipments of it to be made to Europe this season than were made last year. They amounted by sailing vessel to Europe and other foreign countries to 700,000 lbs., and by sail via New York to 175,000 lbs. The principal part of these shipments went direct to England; the balance to Germany. France did not import any from here during the year. Overland shipments, including those for Europe, via New York, amounted to nearly 1,000,000 lbs., while in 1887 they were 950,000 lbs.; 1886, 2,000,000 lbs., and 1885, 1,270,000 lbs.

Shipments by sailing vessels to foreign market have been as follows for the past eight years:

Year.	Cases, Year.	Cases.
1887.....	2,000 1883.....	6 700
1886.....	7,500 1882.....	3 600
1885.....	8 800 1881.....	9,500
1884.....	16,000 1880.....	9,400

Beeswax—As in 1887, this article has been greatly depreciated in this market. The demand of the Eastern and European markets for it has been very light, though for the last few weeks it has been better than earlier in the season. During the year 1888 there arrived in this market 30,000 lbs.

THE VINEYARD.

Prescriptions for the Mysterious Vine Disease.

Seward Cole of Colegrove, Los Angeles county, writes to the *Los Angeles Times* as follows:

Quite a percentage of the vines of Southern California have succumbed to the "vine disease." To my personal knowledge several vineyards, in which the "sickness" was hardly perceptible in 1887, were so badly affected last year that the crop of grapes was a failure, and more than half the vines were, to all appearance, little better than dead. Unless something is done this year, we will have very few healthy vines by next autumn.

If the open weather continues, the vines will begin to bud in a very short time, and it will then be too late to apply the strong solutions of bluestone (sulphate of copper) or of copperas (sulphate of iron) that have been recommended as efficient in preventing the attack of the disease.

Investigation has shown the presence of fungoid growths on the leaves, canes and roots of the diseased vines, though it has not yet been determined whether the disease is traceable to the fungi or whether the latter (with the germs of which the atmosphere is always full) attack the vines because they are weak and sickly and present conditions favorable to their growth.

In any event, it is advisable to treat all vines with some wash that will destroy and protect from the fungoid germs. The fact that farmers soak their seed grain in a solution of bluestone, and thus prevent the attack of smut in the subsequent crop, should be sufficient encouragement to induce the vineyardists to try it on their vines. Every one should try it for himself, and immediately. There is no time to waste in waiting to see how it will work on somebody else's vines. You may lose your own vines in the meantime. Now as to preparations. Mr. Mirande of Pomona claims to have been very successful last year with the following: Two pounds bluestone, dissolved in a bucket of hot water; three pounds lime, which should be slaked in three gallons of water, and the whole stirred in 50 gallons water. He suggests that a much stronger preparation be used now while the vines are dormant. Jacob Schram, the celebrated vineyardist of Schramsburg, Napa county, told a gentleman from here a few days ago, that he used, with absolute success, a copperas solution, which was better than one of bluestone. Copperas—sulphate of iron—is not only excellent as a fungus destroyer, but also acts as a valuable fertilizer.

Mr. Schram's formula is as follows: Ten pounds of copperas dissolved in boiling water, and then diluted to 50 gallons with cold water. He applies to the vines with a sponge tied on the end of a short stick with copper wire. (Iron wire would soon be eaten by the solution.) It might be well to suggest here that the sponge should be of good tough texture—known by druggists as "sheep's wool."

It is undoubtedly advisable to use lime in the washes, as it holds the bluestone or copperas to the vine, so that it is not washed off by rain, but remains for a long time to perform its good offices. Lime itself has valuable properties as a disinfectant and fertilizer.

I am treating a vineyard with the following preparation, which I hope will prove efficient: Five pounds bluestone, 5 pounds copperas (both dissolved in hot water), 10 pounds lime (slaked), the whole diluted with water to 50 gallons. Applied with a sponge on a stick, wetting each vine quite thoroughly. Later in the season, "when the leaves have come out well on the vines and there is no danger of harming them by the wash," as Mr. Mirande says, I shall sprinkle them with a milder solution.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

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Official Endorsement.

In consideration of a certain contract entered into this day between Dewey & Company, publishers, and the California Patron Publishing Company of San Francisco for the publication of a weekly Grange edition of the PACIFIC RURAL PRESS, and the California Patron as a monthly,

Resolved, That the Executive Committee of the State Grange of California hereby designate and endorse the PACIFIC RURAL PRESS as the weekly organ and the California Patron as the monthly organ of the State Grange of California.

Notice to Secretaries.

OFFICE SEC'Y STATE GRANGE, }
SAN FRANCISCO, Feb. 19, 1889. }

Some time since we forwarded to the Secretary of each subordinate Grange in California, a blank to be filled out by the Secretary, and to be returned to this office, giving the name of each officer of their respective Granges.

It is important to have a correct and complete list of the newly elected officers at as early date as possible, for reference, and we again especially request those Secretaries who have not as yet reported, to do so at once.

Changes are so apt to be made between the date of election and installation that it is desirable to have a correct and complete list sent after installation from every Grange.

We wish each Secretary would write a few lines, regarding the progress and prospects of their Grange, for publication. Fraternally,
A. T. DEWEY,
Sec'y S. G. of Cal.

Gilroy Grange Again in Line.

MESSRS. EDITORS:—Pursuant to appointment, a meeting was held in Wright's hall, Gilroy, on the 14th inst., for the purpose of reorganizing Gilroy Grange, P. of H. The early-morning train brought from Watsonville Brother and Sister Roache, and later, from the north came Brothers Alley and Sanders with their good wives, to assist State Deputy Roache in reorganizing the Grange. All repaired to the parlors of that excellently managed hotel, the Williams house, where their every want was anticipated and duly administered unto by the genial proprietor, S. T. Purviance, who, by the way, is himself an ex-Patron, and he lost no opportunity to aid and encourage the writer in his efforts to stir up the dormant energies of those interested in the cause of the Patrons of Husbandry.

After lunch all adjourned to the place of meeting, and after some necessary delay, the body was called to order by Deputy Master Roache and Bro. S. P. Sanders was appointed Secretary.

After administering the obligation of our Order to the new members, the election of officers was held with the following result: C. F. Eckhart, M.; Massy Thomas, Jr., O.; Mrs. L. C. Trombly, L.; M. T. Holsclaw, S.; W. W. Beauchamp, A. S.; C. E. Sanders, C.; Geo. Easton, Treas.; C. R. Wilson, Sec.; I. L. Sanders, G. K.; Mrs. A. P. Sanders, P.; Mrs. Capt. Angney, C.; Miss Nettie Withom, F.; Annis M. Sanders, L. A. S.

It was decided to hold the next meeting Thursday afternoon, 1 o'clock, on Feb. 21st, at which time Deputy Master Roache is expected to be present to exemplify the unwritten work for which there was not sufficient time on the day of reorganization.

F. B. L.

Another Promising Grange.

MESSRS. EDITORS:—After a long sleep, Hollister Grange may be numbered with those that are alive, and I have the fullest confidence in its future prosperity. Personal contact with each member of this reorganized body gives me the advantage of knowing something of their qualifications. It is no more possible to form a good Patron of Husbandry out of bad material than it is to construct an implement of husbandry from worthless timber.

The meeting for reorganization was held on the 15th inst. The election of officers for the current year was as follows: For Master, Granville S. Nash; Overseer, Jesse Ross; Lecturer, Geo. T. Elliott; Steward, A. H. Thysen; Asst Steward Gustave

Brown; Chap., V. B. Nash; Treas., Dr. Thos. Flint; Sec., A. Dunlap; Gate Keeper, Chas. Straube; Pomona, Mrs. G. T. Elliott; Flora, Mrs. G. S. Nash; Ceres, Mrs. G. Brown; L. A. Steward, Miss Anne E. Brown.

A. P. Roache, Esq., the official Organizer, was ably assisted by E. Z. Roache, Master of Watsonville Grange.

In the evening, as previously arranged, a number of the brother and sisters gathered at the elegant home of Worthy Master-elect Nash, to witness the rendition of the unwritten work of the Order by Bro. Roache. Impromptu literary and musical exercises followed, each one present offering something for the entertainment. At the approach of midnight, "farewell" was spoken and each repaired to his or her respective lodging conscious of having passed a pleasant evening.

The next meeting of Hollister Grange will be held on Saturday afternoon, 2 o'clock, March 2d.

F. B. L.

To Young Candidates.

We are glad to hear more said at Grange meetings and in Grange circles everywhere urging the pleasure and desirability of having our young folks join the Grange early. The advisability of this, after due consideration at different sessions of the National Grange, determined the highest body in the Order to invite girls to come in at the age of 14, and then later boys at the same age. This is right, placing both sexes on an equality in the Grange. Let no adult Patron fail to do his duty in inviting and making the way easy for younger members of the farm and household to come in and partake of the educational, social and other rare privileges of the Grange.

Michigan's Worthy Secretary Here.

San Jose Grange was addressed February 16th by J. T. Cobb, Secretary of the State Grange of Michigan and editor of the organ of the Grange. He gave encouraging reports of the success of co-operative enterprises in his State. Remarks were made on the same subject by local Grangers.

Bro. Cobb is the long-continued Secretary of the State Grange of Michigan and veteran editor of the *Grange Visitor*, the official organ of Michigan State Grange, which we believe is the only newspaper, except the *California Patron*, ever owned and published for any considerable length of time by the P. of H. in the world.

We hope Bro. Cobb, who was in California a few winters ago, will this time make a longer visit and speak to some of our Granges, who would be pleased to welcome him, in different localities.

Watsonville Grange.

MESSRS. EDITORS:—An old saying and a true one is: "It's always darkest just before day." The truth of this aphorism has again been verified, as all will bear witness who were so fortunate as to be present at the last meeting of Watsonville Grange. While it has always held its own, yet for the last few years it has been stationary. The deep and mighty tidal wave of Grange advancement has here also shown its crested head, and "Onward!" is again the counter-sign. A grand and enthusiastic meeting has just been held, wherein were many brothers and sisters who for years had forgotten the way to the hall, but who now came trooping up the old familiar stairs to receive the old fraternal grip and welcome with God-speed and words of cheer their woman Master. Without witnessing these heartfelt words and actions, one can have no appreciation of how good it is for Patrons to dwell together in unity.

GRANGER.

Watsonville, Feb. 16.

THE CALIFORNIA LEGISLATURE invites the National Grange to meet in the Golden State. Worthy Secretary of the National Grange, Dr. John Trimble, has received an official letter from W. D. Boruck, private secretary of the Governor of California, inclosing a resolution of the Legislature of that State inviting the National Grange to hold its next session on the Pacific Coast. Such action, while highly complimentary to the Grange, reflects great credit upon the intelligence of the California legislators in thus officially recognizing the importance of the only National Organization of American Farmers.—*National Farm and Fireside*.

IRRIGATION DISTRICTS.—The two bills, amendatory of the Wright law and providing for changing the boundaries of irrigation districts, of which we gave an abstract in the RURAL PRESS of February 9th, have passed both branches of the Legislature, received the Governor's approval and become California statutes.

Gilroy and Hollister Granges.

MESSRS. EDITORS:—In proof that the Grange spirit of advancement is genuine, we point with pride to two more returning members to our great family, Gilroy and Hollister Granges. Wednesday, Feb. 14th, found your correspondent at Gilroy, where we were shortly joined by the Master of San Jose Grange, Bro. Alley, accompanied by his wife and Bro. and Sister Saunders; also the Master of Watsonville Grange, Sister Roache, and Bro. Logan of the RURAL PRESS. Found a goodly number of earnest, intelligent Patrons ready for work, and with Sister Saunders for Chaplain, Bro. Alley for assistant installing officer and Bro. Saunders for Secretary, in two hours from the time of commencing Gilroy wheeled her artillery into line, and, with doubly shotted guns, stands ready to maintain her rights. To show what true P. of H. grit was here only slumbering, we have but to mention that, although the Grange had not met for 11 years, all their working tools, books, blanks, seal, with all their regalia nicely folded, and all neatly packed in a large box, were found. After appointing a business meeting for February 21st, Grange closed with a bright prospect for future usefulness.

The next morning our party boarded the early train for Hollister, where the farmers came driving in with their fine teams from all directions. We were soon at work, and ere the sun dipped behind their glorious hills there was forged another link in our fraternal chain, and Hollister, No. 10, will answer to the roll-call at Sacramento. A delightful evening was spent at the elegant home of the newly elected Master, Bro. Nash, who, with his devoted wife, placed us under lasting obligations for their hospitality.

Thus auspiciously begins the new year, with every prospect of so continuing.

GRANGER.

An Infamous Scheme.

The gambling interests of the State of Nevada have caught the unfortunate people of that commonwealth in a trap, and neck and heels propose to enslave them to the most vicious, mean and debasing of gambling schemes, compared with which faro, roulette, chuck-a-luck and hokey-pokey are angelic devices. The Legislature has forced upon the people of that State an election on a proposition to legalize lotteries, on the promise of the gambling ring that a portion of the ill-gotten results wrung from those so weak as to be made victims shall be paid into the State Treasury.

The commonwealth that is in such a strait that it must resort to lottery gambling is ready to die, and ought to be put out of its misery, were it possible to do so. But Nevada is not thus reduced. The law submitting the constitutional amendment was passed and approved January 19th, and the election under it is set for February 11th—less than a month after the enactment, and this, though Nevada is a State of such great distances, and such non-communication, that some of her people will not hear of the election until long after it is over. The new law requires that notices of election shall be posted one week before the day appointed, although even for a school election ten days' notice is required. This is equivalent, says one of the protests, to almost no notice at all, and one-fourth of the people of the State will simply hear from some of their neighbors that there is to be an election, but what for or when they will know little about. The *Silver State* says:

"This is a lightning process for amending a State Constitution, and if the Legislature has not applied for a patent for the method it should do so at once. In this county the board stands adjourned until the first Monday in March. The Commissioners of some other counties, especially Nye, White Pine and Lincoln, will find it as difficult to comply with the law as those of Humboldt, and the voters in the remote precincts, if they hear that an election is to take place, will hardly have an opportunity to ascertain for what purpose."

The business is a "snap game" on the part of the gamblers of Nevada. They believe they can turn that State into a Monte Carlo and draw support for it from California. They boldly argue that Californians send hundreds of thousands of dollars annually to the Louisiana lottery swindle, and that Nevada can just as well catch that drift as not. California is interested deeply in the defeat of this infamous scheme, for if it is not defeated, this State will be flooded with the Nevada lottery advertisements and their ticket-peddlers will swarm in every town and city.

It would be an insult to the intelligence of ordinarily informed people to enter upon argument to prove the evil of lottery gambling. The world knows it to be the most debasing form of gaming, to afford the greatest opportunities for swindling, in fact most State lotteries are robbing games, and all take more of percentage for the game than they give of winnings to the ticket-holders. They are the mills that next to whiskey grind out most of poverty, idleness and woe. They are the foes of industry and the enemies of honest thrift.

One of the protests against the Nevada snap game has these pathetic passages:

"For a hundred years the English nation derived part of its revenues from lotteries, but for the last century such means have been tabooed among all economists worthy the name. Even the Latin races have outgrown the folly. They have been proven by ages of experience to be conducive to bad morals. Vice, idleness, crime and poverty are their natural products.

"The argument that money spent in such follies would be better kept at home, applies equally well to every State in the Union. Why does not California start a lottery? Twenty dollars, perhaps a hundred, goes out of California to every one out of Nevada, and yet there is no proposition to start a lottery there.

"It is freely prophesied that if the bars are once taken down no power the people can avail themselves of will ever put them up again. If this thing has the strength to compel the calling of a special election on a week's notice, in midwinter, to enable its starters to launch it, it is hard to say what it cannot do when once it is fairly under way. It will be the most veritable old man of the sea that the people of Nevada ever got upon their back. No man hostile to it can ever hope to rise in this State, and with the floating element in its politics Nevada can never get clear of it, no matter what outrages it may commit or what disgrace may be put upon her name. She is not in the best odor now among the people of the older States, and this will put a cudgel into the hands of her enemies.

"Upon the decision of this matter rest the most serious considerations affecting the future of the State and the fortunes of generations yet unborn. If they are willing to be the victims of such a job, let them remain indifferent on election day and they will have no occasion to find fault with the efficiency of the machinery or with the promptness and thoroughness of its operations. If, however, they give this cheeky proposition the answer it deserves, it will be notice to the world that Nevada is living in the nineteenth century. That she is up with the times and is cultivating a better civilization than that of a hundred years ago. That her people propose to build a State, not on games of chance or the practices of the harlot and sharper, but upon honest industry and an intelligent development of nature's bounties. Such an answer would elevate her in the eyes of the nation and would be an invitation to her elder sisters in the Republic to give her a helping hand in the work of overcoming the difficulties before her. The American people are generous and sympathetic, and when they see a brave State struggling with the elements and with sturdy morals and honest effort trying to make homes for its people, they will not refuse necessary aid."—*Record-Union*, Feb. 7th.

[We are glad to see that the amendment to the Nevada State Constitution referred to in the foregoing article was defeated by a majority of from 200 to 400. A telegram from Virginia City states that coin was used freely to carry the election by the pro-lottery men, while the anti-lottery men had no funds. The discomfited lottery advocates threaten henceforward to prosecute all vendors of foreign lottery tickets, which have heretofore been openly sold throughout the State, and to have an Act passed prohibiting all manner of gambling. EDS. PRESS.]

Bennett Valley Grange.

MESSRS. EDITORS:—Bennett Valley Grange is still above high-water mark. Bro. and Sister Carr were in attendance at our meeting on the 16th, feeling fairly well after their short tour over the State. Our Grange passed Bro. Davis' (the W. O.) resolution in reference to the Secretary's monthly correspondence, with the addition of the average temperature of each month. The average for January here has been 54°; for February to present date, 45°. The morning of the 15th was the coldest this season; then the mercury showed as low as 28°. In due time you will get our Secretary's correspondence in compliance with the resolution referred to. Yours fraternally,
G. N. W.
Santa Rosa, Feb. 18.

NOTEWORTHY.—Although the expenses of Worthy Master Carr for traveling about the State were proffered him, it is a noteworthy fact that the Grange was not allowed to make the least expenditure on his personal account. He has enthused our members wherever he has visited, and through the reports of his speeches and the sayings of others and the exhibition of so much of the true fraternal spirit and enthusiasm, we trust will be of permanent good in our State. It ought to make every Patron on the coast feel a greater pride and interest in the Order from the kind and appreciative manner in which Bro. Carr has been treated and the good will that he has carried from the Pacific Coast to his fellow-Patrons east of the lofty mountains and great deserts.

The Mullan Raid.

On Monday last Gov. Waterman mailed to the Secretary of the Treasury a letter regarding the now notorious claims of Capt. John Mullan and Secretary Fairchild's conduct in the case. After briefly reviewing the correspondence which passed between them last year, and remarking that he has never had a response to his letter of March 6, 1888, the Governor delivers himself in the following vigorous style:

It was apparent to me then, as it is evident now, that yourself and Captain John Mullan have conspired together against the promotion of the best interests of this State, and for the purpose of defeating, if possible, my authority in all these matters, to the end that Mullan might obtain possession of any drafts representing moneys appropriated by Congress for the benefit of this State, made payable to me as Governor of the State, and attempt in the garb of a pretended agent to levy a tribute of 20 per cent out of the same as his compensation for pretended "services rendered."

Acting upon this determination, you did, some time after October 18, 1888, and against my written instructions, deliver to Mullan as "agent and attorney" to convey to Sacramento two drafts payable to me representing \$11,723.64. This was entirely unnecessary, as the mails and express were at your command, but the extraordinary part of this questionable transaction was the fact that you permitted this money to be divided into two portions, one-fifth representing the amount claimed by Mullan, and four-fifths, as you assume, representing the amount due the State. Your manipulation of these drafts in favor of Mullan, although intended to give Mullan the benefit of "collecting" this money for the State and put him on good fighting ground against me, avail him nothing at the present time, nor will it in the future. On January 18th Mullan, on my demand, and as a private citizen, or messenger, surrendered the drafts into my custody, and the State will receive the whole amount.

To sustain this peculiar and unprecedented proceeding, and as an answer to my letter dated March 6, 1888, above referred to, I am now informed through Washington press dispatches of February 9, 1889, that "Secretary Fairchild referred the matter to Second Controller Butler, who furnished an elaborate review of the case, in which he decides in Captain Mullan's favor." This decision is printed with prominent headlines, such as "Mullan Recognized," "Waterman's Action," etc., and is put forth prominently at this time to discredit my action in removing Mullan and to throw dust in the eyes of our legislators who are not informed as to the true facts of the case.

It is unfortunate for Second Controller Butler that, in his zeal to aid Captain John Mullan in breaking into the money chest of this State, he has entered the arena against me, without being fully equipped as to the facts or informed as to the law, his information being fragmentary and elliptical in its character. Laying aside the proposition that he, a sub-officer of the Treasury Department, undertakes to decide judicially as to the validity of an appointment and a concurrent resolution adopted by our State Legislature, as against the plain provision of our Constitution, and pretend to advise me as to my duties in the premises, he assumes for his groundwork of attack a false assumption of facts, that in truth do not exist.

The Governor then takes up the false premises on which Mr. Butler bases his "elaborate review," and tersely disposes of them one after another, affirming that Gov. Perkins merely authorized Mullan to represent the State in recovering money expended in suppressing Indian hostilities, and that his appointment was not ratified by the Legislature in the following March; that Gov. Stoneman's appointment of Mullan did not embrace the same matters included in Gov. Perkins' appointment; that no record of such appointment appears in the Governor's office; and that all the appointments issued to Mullan were without authority of law, and any attempt to ratify or confirm them would itself be void.

Gov. Waterman closes with this caustic comment on the work of the Second Controller:

He has served your purpose well, and as a pawn in the hands of Captain John Mullan, Mr. Butler has proved a success. In view of the facts as above stated, it is not necessary to further review this "elaborate" decision, which, in Mr. Butler's case, was a clear waste of time, midnight oil and brainwork, at the expense of the Government.

The promoters of grab-games and raids on the State Treasury do not find an easy job when they try to "down" our present chief executive.

THE POOLROOM BILL.—There was a hearing before the Assembly Committee on Public Morals last Monday on the bill for the suppression of poolrooms. General Clunie appeared as counsel for the poolroom men and introduced several witnesses to prove that the breeding of blood horses depended on racing, and racing on betting; that these stimulants being removed, an important industry must decline. Mr. Rankin, for the petitioners, argued that, if such were the fact, the financial interests of a very small number of rich men should not be permitted to outweigh the moral interests of the community at large; that gambling is a vice which in poolrooms is practiced in a most seductive form, dangerous to the public morals, and particularly to the young. The committee closed the hearing, and will submit their report to the Assembly.

BRO. F. M. NIGHSWANDER sends us a report of Sisuald (Or.) Grange meeting, which will appear next week.

SAN JOSE GRANGE is coming forward with ten or more new applicants, and will have the new rituals also, we guess.

Tulare Grange Resolutions.

To the honorable representatives and Senate of the State of California in Legislature assembled:

WHEREAS, The subject of irrigation is the most important interest of Southern California and the whole State; and

Whereas, Water, the great element of life and wealth, is now squandered and misappropriated to a very large extent; and

Whereas, A State system of irrigation would conserve the interests of all and establish justice; therefore be it

Resolved, Tulare Grange, No. 198, respectfully requests Senator Roth and Assemblyman Berry to use their best endeavors to secure the enactment of a State system of irrigation.

W. F. STEWART,
J. W. MACKIE.

Worthy Master and members of Tulare Grange, No. 198, Order of P. of H:

Your committee appointed to draft a suitable resolution indorsing the passage by the Legislature of a law prohibiting the sale of intoxicating liquors in this State to minors or persons addicted to inebriation, beg to report the following resolutions:

Resolved, That Tulare Grange, No. 198, P. of H., herein indorse the passage of a law by the Legislature of this State, prohibiting the sale of intoxicating liquors to minors or persons addicted to inebriation, and we earnestly urge upon our representatives in the Senate or Assembly to give their earnest support to any such law as may be before the Legislature, and should there be no such bill now before the Legislature, we would request our representatives in the Legislature to have such a bill framed, introduced and passed.

Resolved, That a copy of these resolutions be sent to the Hon. G. S. Berry and John Roth, with seal of Grange attached.

ELIZABETH M. MAPLES,
JOHN TUGHY,
STELLA C. MERRITT, Chairman.

Grange Elections.

GILROY.—C. F. Eckhart, M.; M. Thomas, Jr., O.; Mrs. L. C. Trombly, L.; M. T. Holsclaw, S.; W. W. Beauchamp, Ass't S.; O. E. Sanders, Chap.; Geo. Easton, Treas.; C. R. Wilson, Sec.; I. L. Sanders, G. K.; Mrs. A. P. Sanders, Pomona; Nettie M. Witham, Flora; Mrs. L. F. Augney, Ceres; Annis M. Sanders, Lady As't S.

HOLLISTER.—G. S. Nash, M.; J. Ross, O.; Geo. Elliot, L.; A. H. Thyssen, S.; G. Brown, A. S.; V. B. Nash, Chap.; T. Flint, Treas.; A. Danlap, Sec.; C. Straube, G. K.; Mrs. G. T. Elliot, Pomona; Mrs. L. D. Nash, Flora; Mrs. G. Brown, Ceres; Annie M. Brown, L. A. S.

NOTE.—The Secretaries of Granges are requested to forward reports of all election and other matters of interest relating to their Granges and the Order.

A Saloon Ordinance.

The County Supervisors of Marin county have been studying the liquor business. They have just adopted an ordinance for the regulation and control of saloons that deserves notice. The fee charged, \$64 per year, is not high, but it must all be paid at one time, and that too before the place is opened.

Saloon licenses are not transferable, and the person, firm or corporation to which one is issued must first present to the County Supervisors a petition signed by ten free-holders in the township recommending the applicant and asking that license issue.

If the Supervisors decide that the license may issue, the recipient of the same shall enter into a good and sufficient bond in the sum of \$1000 to conduct the business in the manner prescribed in said ordinance.

It is ordered that all saloons shall be closed at 11 P. M., and not be opened again before 5 A. M. The exception to this rule is that the saloon may be opened from 11 P. M. to 4 A. M. on the order of the Supervisor residing in the same district, on the payment of \$10 per night for this special privilege.

All kinds of gambling games are prohibited in or about saloons. The regulations in regard to the management of such places are very strict.

Severe penalties, fines and forfeiture of bonds are prescribed for the violation of any of these provisions of this ordinance, and it is provided that a single conviction shall permanently disqualify one from receiving another license.

It is made the duty of the Tax Collector to collect all license money and specially to look after violations of the ordinance, the District Attorney being required to conduct all prosecutions under the same.

The ordinance has been carefully drawn, the language being explicit, and it seems like an honest and a genuine attempt to control the liquor business of that county. People who believe that the liquor business should be controlled by the country, rather than to control it, will be interested in noting the effect of this ordinance.—*Santa Rosa Republican*.

IMPORTANT.—A committee of San Jose Grange is preparing a very important communication concerning legislative action, to be presented for the consideration of subordinate Granges soon. It will probably be received in time for action by every Grange next week. Do not fail to attend and discuss the same without delay.

The Citrus Fairs.

It was not our happy fortune to attend either of the citrus fairs held last week—the one at San Jose being managed largely by our Grangers—but from the glowing accounts of eye-witnesses (which it is rather tantalizing to peruse), we cull and condense reports of both as follows:

San Jose.

In preparation for the Mid-winter Fair, which opened at San Jose on Monday evening, Feb. 11th, the interior of Horticultural hall was tastefully and elaborately decorated. The roof was one great bower of greenery, adorned with innumerable Japanese lanterns. The galleries were draped with orange and blue bunting, and a profusion of green leaves and red berries hung from all the gas fixtures. The handsome effect of the whole did great credit to both the taste and the industry of Mrs. M. E. Newhall, A. B. Hunter and the score of ladies and gentlemen who were with them on the Decorating Committee. The general management was in the hands of Cyrus Jones, assisted by the Decorating Committee above named, and the others following: Fruit Committee, G. W. Tarleton and M. S. Bowdish; Vegetable Committee, W. L. Manly and L. F. Chipman; Entertainment Committee, Mrs. Newhall and A. B. Hunter.

The heaps of golden oranges that covered the long tables, and were massed together in every shape, from loose piles to pyramids, castles and chapels, dominated the other exhibits and gave the prevailing tone to the exhibition. It was essentially a citrus fair, of which the Santa Clara people were very proud.

Next to the oranges in quantity were the apples, the exhibits of which were varied and excellent.

Under the gallery on one side of the hall was a castle built of oranges, by C. Yocco of Los Gatos. It stood on a bed of green moss, through which ran a roadway of oranges. Young citrus trees in bearing and graceful ferns decked the sward and lent a charm to the whole design. On the opposite side of the hall was another fine display of oranges from the groves of F. J. and E. C. Smith of Evergreen, arranged to represent the chapel front of Stanford University, and standing like the castle on green moss varied with pretty plants.

The refreshment booth in charge of Mrs. S. H. Leach, assisted by Miss Carrie Dougherty and Miss Carrie Campbell, was draped with green and white netting and adorned with ivy and sprays of pepper foliage. Bunches of bright red berries and various flowers added their beauty and perfume, making this stand one of the prettiest in the building.

The first table to the left of the hall was covered with dried fruits, sent in by many exhibitors, the chief of whom were C. W. Bennett, O. F. Ally and the Geo. Fleming Co. The display of dried, evaporated and preserved fruits of all kinds could hardly be equaled in any district of the same size in the world. In this general profusion of preserved fruits there was one glass jar containing six pears exhibited by the San Jose Packing Co., whose beauty attracted special attention and was universally admired. H. H. Headon of Santa Clara had some grapes preserved in such a way that the form, color, freshness and almost the bloom of autumn was on them yet.

Among the flowers from Dr. Mintie's Cypress Lawn Ranch, where they have been blooming in the open air, were coral plant, geraniums, China lilies, laurestinus, cassia, marigold, loquat, calla lilies, almonds, Scotch broom, cloth of gold, La France and giant of battle roses, fragrant daphne blossoms, cape jessamine and jonquils.

The palms, ferns, smilax, lilies, fuchsias and other plants shown by R. D. Fox were also very conspicuous; and Mrs. J. Aram's camellias, jonquils, Japanese magnolias, daphne, gillyflowers, snapdragon, geraniums, acacia and other flowers decorated many of the tables and added much to the attractiveness of the display.

The exhibit from Goodrich's olive farm illustrated the whole range of the olive industry, and afforded opportunity for noting every period in the growth of the tree and every step in the process of manufacture. Fine specimens of the oil made at El Quito were included in the display.

The San Jose table was covered with a miscellaneous collection of citrus and dried fruits and apples, sent in small quantities by a large number of contributors.

The Willows table, chiefly occupied by Wm. Beauchamp, showed some remarkably well preserved pears and persimmons, a large quantity of evaporated fruit and two superb cactus plants. The Almaden Mining Co. had several fine specimens of quicksilver ore.

The Saratoga table, to which S. W. Weed, C. T. Wilcox, F. A. Marsol and others contributed, was chiefly noticeable for its output of oranges.

The California Nursery had a brilliant display of palms, ferns, reeds, rushes, grasses and other evergreens on a table to itself. Near it was a collection of manzanita, wild currant and wild raspberry bushes, made by W. S. Bowdish.

The largest exhibition in the hall was that of the San Jose Fruit Packing Co.

Besides all the fruits, vegetables and flowers,

there were beautiful specimens of decorative art, cabinet work, scroll sawing, fancy work in silk and threads, curios and minerals.

Music and addresses made the evenings livelier, and a great number of ladies and gentlemen from the East registered their names on the book provided for that purpose.

San Bernardino.

The first citrus fair ever held in the city of San Bernardino was formally opened Wednesday evening, Feb. 13th. The hall in the Van Dorin block was handsomely decorated with festoons of greenery and orange-colored cloth, magnolia branches, fan palms, pampas plumes, olive branches, mountain evergreens and growing citrus trees in bewildering abundance. The pleasing effect was heightened by the paintings and the great banks of oranges, one in either gallery, partially visible from the main floor through the dense foliage. The contrast of colors—green leaves, white plumes, many-hued flowers and the deep orange of the Washington Navels—was very striking, and under the brilliance of the four electric lights, each of 5000-candle power, the scene was one long to be remembered.

The east gallery has a bank five feet wide running its entire length, covered with oranges from Highlands, Redlands, Crafon, Lugonia and Old San Bernardino, and bearing this placard: "Our Bank, Redlands, Highlands, Crafon, Lugonia and Old San Bernardino. Checks presented to this bank are never dishonored."

The west gallery has a bank 5 feet wide and 64 feet long, completely covered with 10,000 large Navel oranges from the orchard of L. M. Holt, editor of the *Times-Index*.

Directly opposite the right entrance is the Highland exhibit, exquisitely arranged by Mr. T. S. Ingham. In the center is a large pyramid of oranges of several varieties surrounded by plates of choice fruits from many contributors. From the Harrison ranch, two boxes of ripe strawberries excite great admiration. Above the exhibit is a cluster of dates from the ranch of Charles Hidden and a bunch of bananas from the ranch of W. A. Corwin—quite a curiosity to visitors who have never seen dates or bananas except in fruit-stands. There is also in this exhibit a sample of Tangerine oranges, from the ranch of Governor Waterman.

Mentone has a pyramid of handsome oranges from the ranch of Drew & Guthrie, surrounded by plates of lemons and other fruits. To the right of this table is a collection of choice plants and shrubbery from the nursery of Messrs. Soule & Wagoner. S. M. Stoner also has a fine display of plants.

The table in the center of the hall is devoted exclusively to the Riverside display, and a royal one it is. Twogood & Co. have the first space, arranged under the direct supervision of J. E. Cutter. The first piece on the table, a large Maltese cross, composed of Washington Navel oranges, is one of the prettiest in the fair. Another represents the San Bernardino mountain range, showing the peaks of old Gray-back (all composed of oranges), and is very natural. The Twogood Packing Co. has several boxes of choice oranges of all kinds, under the charge of Mr. W. C. Duell, who has also built a large pyramid of paper-rind St. Michaels seedlings, Navels, etc. Messrs. Waite and Sims make a fine display of oranges of different varieties. A. D. Haight has a pagoda of unique design, roofed with oranges and festooned with ivy and Tangerines. B. B. Barney has four boxes of Washington Navels, picked from the first budded Navel tree in California, and L. C. Tibbets has a fine display of Navel oranges from one of the original trees sent out here by the agricultural department at Washington. Handsome designs in oranges are also shown by E. E. Rosenthal and J. G. North, and many other Riverside orchardists have contributed more or less to this superb exhibit.

Old San Bernardino's output, arranged by Dr. Pierson, embraces oranges, lemons and preserved fruits in great variety, almonds, walnuts, etc., from the ranches of J. Birch, Judge Hargrave, J. W. Doren and others.

W. H. Sprinkle's sample cabbages and cauliflower average 32 pounds apiece.

Colton Terrace shows a variety of fine oranges from the groves of Dr. Fox and Curtis & Garner.

Chino comes in with a display of her products, consisting of vegetables of all kinds. Henry Parker of Highlands has on exhibition a mammoth watermelon. Yucaipa furnishes a fine sample of barley from the ranch of G. A. Atwood.

Jurupa, Mt. Vernon and Rialto, Redlands and Crafon, Cucamonga and Ontario are all worthy contributors to this great display of orchard and garden products, but space fails us to enumerate the exhibits.

Besides the dominant horticultural features, the Colton Marble Works have fine samples from their quarry, and specimens of different kinds of onyx. South Riverside shows coal, pottery, clay, mineral paint, tin and other ores; J. W. Waters, Jr., and Scott Karne have lent handsome cabinets of mineral specimens, and there are also inorganic samples from the Calico, Dry Lake, Needles, Colorado river, Oro Grande, Morongo and other districts.

The exercises of the opening night embraced addresses by Col. W. R. Tolles, president of the San Bernardino Board of Trade, H. M. Willis, W. A. Harris and L. M. Holt.

The attendance has been very large. The fair continues through the present week and has so far proved a marked and gratifying success.



To the English Sparrow.

Saucy intruder from over the sea,
Impudent vandal, brimful of glee,
Driving the linnet, the goldfinch and wren
Far from their haunts near the dwellings of men;
Tasting the cherry, the grape, and the fig;
Sampling the only ripe peach on the twig;
Rifling the caged bird's dish of its seed;
"Mine for the taking," it seems is thy creed;
Fearless and brave little exile art thou,
Chirping discordantly on the elm bough.

Stealing the swallow's feather-lined nest,
Vi et armis a self-welcomed guest;
Surely thou shouldst be a native of France,
Boulangier of birds, regarded askance
E'en by grimalkin, who yearns for you so,
Plump little rascal who knoweth each foe.
Safe from all snares by thine enemies set;
Tiny, shrewd Ishmaelite, what amulet
Immunity brings thee when danger is near?
Who gives thee warning, bold privateer?

Harsh-voiced, unmusical, pert bird of gray,
Why to my window at morn wing thy way,
Rousing from slumber the mind that would fain
Into that soul-soothing trance melt again?
O, leave me! for—hark! the sweet Sabbath bells
All the gloom that encumbers my spirit dispels,
And around me are visions that memory brings
To comfort or sadden the heart that still clings
To the dreams of the Past—to the hopes that have fled;
To dust that is dust, and the dead who are dead!

Who was the miscreant lured thee away
From thy insular home? Tell me, I pray,
That his name may become the ban of the land
Afflicted with thee and thy peace-robbing band,
Art thou the sparrow that Bible lore says
Falls not till the Giver of All ends thy days?
Unworthy object of His divine care—
Yet stay; were I weighed in the balance, what
share
Of His mercy could I claim, small sinner, 'gainst you?
Of a verity, thou art the best of the two.

—Ralph Turner in *Sac. Bee.*

Hope's Valentine.

A Prairie Story.

[Written for the RURAL PRESS by MAUDE MEREDITH.]

The night following the thirteenth of February had been cold and stormy, and when the sun climbed slowly the eastern hills its slant rays fell on a sea of diamonds, fair smooth whiteness as far as the eye could see. The old zigzag fence had disappeared, and in its place lay a downy glittering roll. The bare rocks were invisible and the ragged brown stumps that sat all summer like droway tramps dotting the hillsides were nowhere to be seen. The tall hemlocks and the baby spruces alike bent beneath their burdened arms, and the rabbits floundered slowly through the snow-spread aisles of the woods.

Here and there, nestled well into the snow, crouched a farmhouse, from whose kitchen chimney curled and billowed a great white bank of smoke. Across from a distant hill came the lowing of cattle. Some one whose young stock wintered in the open shed of a barn distant from the house was slow in foddering this morning.

Farmer Hollowell came into the kitchen, stamping the snow from his boots and slipping off his blue-striped mittens.

"I rather guess you'll be late to school this morning, Hope," he said, spreading his hands to catch the warmth from the kitchen stove.

"No one out breaking roads yet?" the young lady addressed asked.

"Not a soul stirring as I can see. I'll get out the sled an' plow, an' if you can stan' up an' ride, I'll take you up as far as Uncle Jake's hill. 'Tain't no ways possible for one yoke of oxen to break up through that, but probably we'll find the rest a diggin' there, an' we can git you over somehow."

"Oh, I can ride on the sled. I have, you know, and even if I tumbled off it wouldn't hurt me any in this new snow."

"Put up a good hearty lunch for her, Mar," he called to his wife, who was in the pantry. "Some doughnuts an' mince pie an' slices of boiled ham."

After breakfast the team was started and Hope was on her way to her post as teacher in District No. 4.

At the great drift at the top of the hill they found the neighbors with teams and shovels, and amid much laughter and merriment Hope was helped over and given a seat on the travers sled of an accommodating neighbor. About ten o'clock the schoolhouse was reached, and Hope warmed her chilled feet and aching hands. Five scholars only struggled through the drifts, and with that small number gathered closely about the box-stove, Hope wore the day away. When the low sun threw faint, sickly tracery of pane and sash and bare arm of outgrowing tree against the teacher's desk, the scholars knew it was four o'clock, and books and slates were noisily thrust into the desks and arms

were folded. The record of the day's lessons was taken and the school dismissed.

"'Spose yer fayther'll come for ye?" Lizzie Wilkins asked wistfully. Lizzie was sure of a ride home whenever she heard the jingle of Mr. Hollowell's heavy bells.

"If he is not too busy," the teacher answered.

The teacher put her desk in order, closed the cracked old stove, put on her wraps and closed the door of the schoolhouse behind her.

"Don't believe he's goin' to come, teacher," Lizzie complained.

Down the hill, over the bridge and away across a level stretch they gazed, but found no sign of life. People stayed at home on such a day as this unless called out by some imperative demand. Slowly the teacher and one or two pupils made their way along the rough, uneven track.

"Home at last," Hope groaned as she shook the clinging snow from her skirts. "How long a mile and a half can sometimes seem!"

Opening the door, she entered the warm, cheery kitchen and crossed to her own room. The teakettle sang merrily over the fire and tossed and tilted its shining black lid.

"I believe," she said to herself, "that I can't help mamma about the dishes to-night, and I'll put on my new wrapper."

From the hooks in her small closet she took a princess gown, for this was before the days of tea gowns, and had it not been so, the dress would hardly have borne the stamp of the latest fashion. For fashion was slow of locomotion, up in these mountain towns, and Byville's latest was usually two years out of date in Boston.

When Hope entered the kitchen again, she looked very pretty indeed, in this gown dyed a soft solferino, and fashioned from an old ecrase-colored delaine by her own deft fingers. A narrow band of black velvet held a tiny gold heart at her throat, and some soft home-knit lace about the throat toned down the too vivid color.

She went over to the window and gazed across at the white hills.

"Just two years ago to-day," she said to herself, "that John came to say good-by. He said that he must be there in time for the March breaking up, and that he hoped at the end of the first year to be able to send for me. That would have been a year ago, and for the last six months I have not heard one word from him. Did he die out there on the lonely prairies, John, my John, or did some prettier girl come there, and in his loneliness and isolation he forgot his little Hope, as he called me, and married her? How can I ever go on in all this uncertainty? How can I wait in this suspense?"

The door opening into the entry creaked, and Hope glanced around as her mother entered the room.

"What is it, mother?" she cried, noticing the strange expression on her mother's face.

"The mail came to-day," Mrs. Hollowell said quietly.

Hope's eyes widened, and her lips quivered, as she tried to voice her question, but could not.

Mrs. Hollowell nodded. "I got a letter from Aunt Jane; they're all well, and you had a letter, I'm sure it's a nice one—I just left it in the parlor."

Mrs. Hollowell raised the lid of the stove and stirred the burning sticks vigorously. In the racket, Hope hurried into the parlor, wondering why her mother should have done such an unheard-of thing as to take a letter into the seldom-used parlor and leave it there—wondering, vaguely, too, how any of the neighbors happened to go to the nearest post-office, seven miles distant, on such a storm-dripped day. Above and beyond all these lesser thoughts was the trembling uncertainty, the almost overpowering hope, that this was the long-looked-for letter from her absent lover. With trembling hands—cold, for the blood had surged back to her palpitating heart—she lifted the latch and crossed the sill.

In the center of the room stood a man, broader and heavier, and bronzed by inland winds, but still John, her John, come back to her alive and well.

She was conscious only of a great gladness, of a sense of having laid down her burden, of peace and peace; and yet, by some odd trick of the mind, she said only:

"I came in to get my letter."

"Your valentine, Hope, that should have come to you a year ago."

A half-hour later, when Mrs. Hollowell came to call them to supper, she asked Hope if she had found her letter.

With a blush, Hope answered:

"Yes, but I have not read it yet."

"We'll all listen to it, then," Mr. Hollowell said, as they seated themselves about the table.

John Marshall spread his napkin smoothly above his knees, clasped his hands on the table edge, and bending a trifle forward, said with a twinkle in his eye:

"Indians."

"O John!" Hope cried, horrified. In all her anxiety she had never thought of that.

"You see I staked my claim close beyond the Missouri, and for the first year had no trouble with the red-skins. But one night—well, Hope, the very one following the day on which I mailed your last letter, I woke up suddenly one night to find my cabin crowded with Indians, and in a jiffy they had me tightly bound with deer-skin thongs, and pretty soon we were tramping westward, I'll give you a detailed

account of the gear by and by, but, to make a long story short, to-day, I'll say, I could not get away, so I made a virtue of necessity and kept my eyes open. I played big medicine-man and gained great renown by dealing out the medicines that I took the caution to have carried with us. In that way I made for myself a sort of rude control, and when an old buck showed me a handful of gold nuggets, I easily learned the locality, and you had better believe I traded my clothing and medicines for handfuls of gold. I also taught them how to dig and wash, and when I had filled a big leathern belt of my own making, I took my chances and ran away. The first stream I struck I dashed into and followed it down, thus throwing the Indians off the trail.

"I had plenty of water, but very little food, you may be sure, for days, but at last I struck a clearing. When I came out into civilization I found myself far out in Colorado with the clothing of a savage and the pouch of—well, of a gold-digger. I got to the nearest town, disposed of my gold and got a draft on a New York bank for ten thousand dollars. I've got a claim all proved up out there, Hope, and, if you prefer, will go there to live; but I think I once heard you say you would like to live on the Judge Jeffries place. If you like, we will buy that."

"Whew!" Mr. Hollowell whistled through his pursed-up lips. "That would just be too drefle nice."

Mrs. Hollowell said: "I never said so, but I did most awfully hate to have Hope settle down so far from home, and way out of the world so, in Dakota too."

"Guess you could buy the Jeffries farm if you take a notion," Mr. Hollowell remarked.

"I just thought I'd run back home and bring the check for Hope's valentine," Marshall said, a satisfied smile curling the corners of his mouth.

"Um," Hope said, dimpling, "I'll take the valentine that I found in the parlor and you can keep the check to pay for the Jeffries farm."

How Jim Meadows Shot the Bear.

Until some time after the discovery of gold in California the population in Carmel valley was principally native Indians, and grizzly bears were plentiful along the river and in the mountains.

Among the white settlers there of foreign blood were two Englishmen—James Meadows and John Robertson. Meadows was from the county of Norfolk, and a pioneer of 1843; while Robertson was from Yorkshire, and arrived here in 1847.

Meadows had a ranch of one league with stock on it. Robertson had a small farm across the river, at present owned by Louis Wolter, and in addition to other stock had a flock of sheep with a black ram among them.

Jim Meadows was a good shot with the rifle, which Robertson was not, and one day Jack came down in great haste to Meadows' and told him there was a grizzly down in the brush back of the house which he wanted him to go and shoot.

Both started off together, and on nearing the place Jack saw something black moving, and excitedly sung out—

"That's him; shoot him, shoot him!"

Jim up with the rifle and fired, and as the critter jumped in sight when shot, Jack cried out—

"Why, d—n it, Jim, you've shot my black ram!"—*Monterey Argus.*

EATING FROM THE FINGERS.—At an official dinner a few nights ago a distinguished belle from New York was observed to handle the wing of a chicken with her fingers, and afterward daintily nibbled a "drumstick" the same way without the use of knife or fork. Some of the Cabinet and Administration ladies marveled at this and thought it showed "lack of breeding." The one authority, Mrs. Whitney, remarked that the action of the young lady was in perfectly good form. The list of things that can be eaten from the fingers is on the increase. It includes all bread, toast, tarts and small cakes, celery and asparagus, when served whole, as it should be, either hot or cold; lettuce, which must be crumpled in the fingers and dipped in salt or sauce; olives, to which a fork should never be put any more than a knife should be used on raw oysters; strawberries, when served with the stems on, as they should be, are touched to pulverized sugar; cheese in all forms except Brie or Requefort or Cumbefort, and fruit of all kinds except preserves and melons. The latter should be eaten with a spoon or fork. In the use of the fingers greater indulgence is being shown, and you cannot, if you are well bred, make any very bad mistake in this direction, especially when the finger-bowl stands by you and the napkin is handy.—*Washington Post.*

A NERVY YOUNG HUNTRESS.—According to the San Jose *Mercury*, Alice Sherman, the 16-year-old daughter of Sam Sherman of Calaveras valley, is a young lady of nerve. The other day she took a shotgun and went out quail hunting. The first game she met was very different from what she sought; it was a wildcat, but instead of running she raised her gun and fired. Her aim was steady and true. The wildcat fell dead and Miss Alice picked it up and carried it home, looking no further for quail. The cat measured 32 inches in length,

Angels' Rights.

[Written for the RURAL PRESS by ASENATH CARVER COOLIDGE.]

Dr. Slaver yawned a great lazy yawn as he was putting up a prescription for Mr. Woolbridge's baby. Then he opened his facial cavity once again and spake as follows:

"Nothing makes me so indignant as to see the brutal and idiotic manner in which men treat their wives. Take my word for it, Mr. Woolbridge, a man has only to be kind and polite to his wife, show her that he sympathizes with her cares and trials, and there's nothing under the heavens she will not do for him. She will be his devoted slave."

Mr. Woolbridge took both prescriptions and started home. He was so absorbed with the prescription for wives and with counting up the things (under his own heaven) that he would like to have his wife do for him, that he forgot to put the prescription for the babe in his vest pocket, and so lost it, as a man generally does when he attempts to carry such a trifle in his hand. Then to have a devoted slave in the form of a wife! That was of itself enough to sink a dozen baby prescriptions in unmitigated flea haunted dust. A few flattering words, a few loving kisses, a few sympathetic squeezes, and lo! the household fires would be builded and the garden weeded, and nevermore would he be under the disagreeable, yea, absolutely painful, necessity of changing his clothes before going to the bank.

When he arrived home he found his wife with her hands full of work and her feet, too. She was rocking the cradle and shelling peas. The other things, namely, the potatoes, turnips, onions and steak, which he had sent up early in the forenoon, were lying on the table in a pristine condition, and the fire was not yet kindled. It struck him that the time was auspicious for trying on the doctor's prescription. Accordingly he veered around to the rear of her, pressed a sympathizing hand on each of her shoulders, craned his neck over the top of her head, and kissed her on the little protuberance next above the bridge of the nose.

"Dear Nerry," he said, "how's the babe? I'm afraid it's going to wear you out."

"Oh, the child's not so bad," replied Minerva, glancing at the vegetables on the table. "It's better this afternoon, but cross and wants sleep. Did you get the doctor's prescription?"

"Bless you, Nerry, if I haven't lost it," said he, shaking his glove; "but I know about what it was. A little catnip tea sweetened will do just as well. To tell the truth, dearest, I was thinking so much about you that I forgot all about the babe."

"Indeed!" said Minerva.

"Yes, dear Nerry. I know you have a great many cares and trials, and I feel that I've been a brute and idiot in not showing you more sympathy and kindness and politeness. Can my angel wife forgive me and tell me of something I can do to make her life easier and brighter and sweeter?"

"She can most certainly, dear Wooley," replied Minerva, rising up with the dignity of a true wife in her heart and the pan of peas in her hand. "You may sit right down in this chair and jog the baby and finish the peas and peel the onions and potatoes. By the time they're done it will be after four o'clock, the boys will be home from school, and you can make them help you on with the rest of the dinner. I'll go and put the dining-room and parlor in order and beautify generally. If the baby wakes, you may give it a little catnip tea. The catnip is up-garret."

She went on tiptoe to the dining-room and shut the door softly after her. Later on she took a bath, which she called "heavenly," arranged her hair in "angel style," put on a dress which struck her as being the color of an "angel's house," added an odor of lavender-water as sweet, she thought, as that most divine odor which the soul of the venerable Bode is said to have emitted as it plumed itself for its heavenly journey.

Then she flew to the garden—yes, fairly flew, for she hadn't felt so light since the day she was married. She flew there just fast enough to escape her husband's frantic question, namely, "what to do with the potatoes that had boiled their water dry and were still as hard as bullets, and the peas that were flopping over and racketing around the stove like emerald hailstones?"

Once in the garden, she was determined to stay long enough to enjoy it as an angel should. She hadn't had time to hardly look at it this spring, much less gather a bouquet for the parlor or a nosegay for her nose; now she did both. After she had put the bouquet in the parlor and pinned the nosegay carefully under her nose, she flopped down in a velvet-cushioned chair and smilingly said to herself:

"I've struck a mine, dear old Wooley—struck it rich—richer than an old Californian could 'a struck it. It's a regular old Golconda, my mine is. I've struck it in the head, and such jewels of time! Bank hours—from nine till three! Oh, I'll have a nice little bit of panning out for you every day in the week, Sundays not excepted! Suppose you thought I'd ask for a nosegay. Thanks! Gathering flowers are quite in the angel line. Suppose you thought if you called me an angel I'd split the kindling-wood and weed the garden. Thanks! twin thanks. I'll show you that I know what the rights of angels are, my fine soft dear old Wooley, as sure as my name's Minerva Electa Fatima Dearing Woolbridge."

Goleta, Cal.

After Your Boy.

During the Christian Endeavor Convention at Chicago, one of the delegates, a young business man dressed in a natty rough-and-ready suit, every movement alert and eager, and telling of bottled energy within, came suddenly upon a red-faced citizen who evidently had been patronizing the hotel bar. Buttonholing the delegate a trifle unceremoniously, the latter said:

"What are you fellows trying to do down at the Battery? You are hot on temperance, I see by the papers. Do you think you could make a temperance man of me?"

"No," replied the delegate, looking him over from head to foot, with a keen glance slightly contemptuous; "we evidently couldn't do much with you, but we are after your boy."

At this unexpected retort the man dropped his jocular tone and said seriously: "Well, I guess you have got the right of it there. If somebody had been after me when I was a boy, I should be a better man to-day."

The young man gave in a nutshell the sum and substance of the Christian Endeavor movement.—*Exch.*

He Knew Him.

Capt. Billy C. is an efficient officer and a clever gentleman, but he is very thin.

A few days ago he was sitting in a rear room of a doctor's office. In the front room the office boy was reading a dime novel, when an urchin made his appearance with a basket of fruit and insisted upon the office boy making a purchase. To get rid of the young fruit vender, the other boy went to a case, opened the door, and exposed to view a skeleton. The fruit boy fled in terror, leaving his basket behind him.

Capt. Billy, hearing the commotion, went into the front office, and, upon learning what had occurred, walked to the door and called to the urchin, who stood across the street crying bitterly:

"Little boy! come over and get your basket; nobody shall hurt you."

"No, I won't," sobbed the little fellow, "you can't fool me. I know you, if you have got your clothes on."—*Redding Democrat.*

WHAT ONE BOY HAD IN HIS POCKET.—The *San Diego Sun* gives the following inventory of the contents of a San Diego youngster's pocket: One large spool, 5 small spools, 1 large iron pulley, 1 electric carbon, 1 piece of lead pipe, 7 clam-shells, 1 piece of lead pencil, 1 piece of blue lead, 1 bunch paper cat st-eps, 1 bunch hemp-rope, 1 bunch twine, 1 bunch tissue paper, 4 dominoes, 1 piece tape elastic, 1 top of tin spice-box, 4 marbles, 2 half-walnut shells, 2 shoe buttons, 2 coat buttons, 1 pants button, 1 wooden boat, 2 advertising tin dollars, 1 8-penny nail, 1 shingle nail, 1 empty cartridge, 1 folded "Want to see your picture," 1 Chinese coin, 2 small stones, 2 pieces slate pencil, 1 lead bullet, 1 iron buckle, 1 "nigger shooter," 2 castor beans. If any one knows of an 8-year-old boy who can beat this record, he is invited to trot him out.

DOWN TO HARD FACTS.—Notwithstanding the fact that Milwaukee brewers recommend their beer as "non-intoxicating, healthful, refreshing and invigorating, conducive to health, prosperity and happiness, and beneficial alike for old and young, male and female," the Northwestern Life Insurance Company, whose headquarters are in that city, will not issue a policy to any member or employee of these brewing companies. This position was not taken from a moral standpoint, but because the statistics show that these men die, as a rule, before their time.—*Ex.*

SALOON AND HOME.—On the night of Jan. 31st, a little before 11 o'clock, a Spokane Falls man was in a saloon playing cards. His wife left two children, aged respectively 3 years and 14 months, together in bed, with a lamp on the table beside it, while she went to the saloon after her husband. He told her to wait a few moments until he finished the game. The wife stepped to the door and saw her home on fire. Neighbors rushed to the rescue of the screaming children, but it was too late. The whole house was in flames and the children were burned to death.

"LET him sink; he is only a Jew," was the exclamation of a crowd of people in a Russian town recently, as they beheld the struggles of a poor wretch in the river. Just then a young man broke through the crowd which tried to hold him, and plunging into the river, brought the drowning man to the shore. As the crowd began to jeer at him for saving the life of a mere Jew, it was discovered that the man whose life was saved was a Gentile, and that his brave rescuer was a Jew. The jeering ceased and the crowd slunk away.—*Exch.*

"UNPARALLELED IN HISTORY."—A correspondent of the *San Jose Herald* writes: Something heretofore probably unknown in the history of Santa Clara county has taken place at Mountain View—a saloon-keeper has decamped, being unable to pay his bills. To the better class of citizens this is pleasing news, for when the saloon-keepers begin to go into bankruptcy they begin to think that perhaps the moral element will yet be in power.

YOUNG FOLKS' COLUMN.

A Little Poet.

Out in the garden, wee Elsie
Was gathering flowers for me;
"O mamma," she cried, "hurry, hurry,
Here's something I want you to see."

I went to the window. Before her
A velvet-wing butterfly flew,
And the Pansies themselves were not brighter
Than the beautiful creature in hue.

"O, isn't it pretty?" cried Elsie,
With eager and wondering eyes.
As she watched it soar lazily upward
Against the soft blue of the skies.

"I know what it is, don't you, mamma?"
O, the wisdom of these little things
When the soul of a poet is in them,
"It's a Pansy—a Pansy with wings."

—*Vick's Magazine for February.*

Great-Aunt Amanda.

[Written for the RURAL PRESS by MARTHA T. TYLER.]

Milly was inconsolable. That Lettice, who was a pretty girl, certainly, but such a doll, should have all the pleasures of life and she none at all, seemed a hardship indeed.

"I hope you are not envious, Milly," said her mother quietly.

"Oh no, mamma! It isn't that I care about her pretty clothes, or the money she has to spend, but Letty will only like Paris, you know, because it's a larger and gayer place than Pemberton"—here she laughed a little at the absurdity of the comparison—"while to me it would mean so much more. I am sure she doesn't appreciate her advantages."

"We all have what is best for us sooner or later," said her patient mother, with the suggestion of a sigh, as she turned her attention to the holes in Willy's stockings.

"Even down to a bottomless stocking-basket, mamma?" asked Milly with a smile, but her heart smote her as she scanned the pale, tired face, and she ran over in her usual impulsive way and kissed Mrs. Reed.

"Dear mamma, you are an angel; and this is the best place in the world after all, because you are here."

Lettice was the only daughter of Milly's wealthy uncle, Mr. Risdon. She was a blonde, with regular features and a delicate complexion. She sang very sweetly, and sketched very nicely, and laughed a great deal, sometimes not quite understanding why. She was always amiable, because she really had no cause to be otherwise; she had no wish ungratified, and though she did not believe, perhaps, that the good things of life grew on bushes, it was all the same to her as if they did originate in that manner.

How different was poor Milly! She knew she had a temper, and she was by no means blonde. Her hair was black and unmanageable, and her nose was a positive disgrace—an irremediable pug. Her skin was too dark and her mouth too large, she reasoned; but even so severe a critic could not deny that her eyes were fine—they were deep blue in color, and the lashes were long and black.

When Milly bought a new dress, she had to count the cost of every yard, and she never went to parties with the other girls because it was not customary to wear calico or serge at parties, and she had nothing prettier.

Milly's mother was Mr. Risdon's younger sister. She hadn't married to please him, and if she was obliged to struggle with the holes in the children's stockings, it was no fault of his. So he speculated here and there, and grew richer year by year, and adored his daughter and indulged his wife, and loved nothing else in the world besides, except his bank account. It did not occur to him, for instance, that Milly was a young person of intelligence, or that there could be anything outside of Pemberton to interest a girl of no expectations. If he thought of it at all, it was only to remember that there were six other children in the family and it wouldn't do to turn the girl's head. So Lettice went to Europe and Milly stayed at home, resolutely hiding her discontent somewhere in the bottomless stocking-basket, as she expressed it.

One sultry day in August she determined that her mother should have a holiday.

"But there are the peaches to do," objected Mrs. Reed.

"I will attend to the peaches."

"And the children?" persisted her mother.

"And the children," said Milly, "the four little ones at least; Carrie and Agnes are large enough to look after themselves."

Thus adjured, Mrs. Reed put on her bonnet and went to spend the afternoon with a neighbor.

The Reeds lived in a dilapidated cottage, which was surrounded by a rambling, old-fashioned garden. Opposite the back door a giant oak stretched its broad green arms in the summer sunshine.

Milly enveloped herself in a red calico apron, and finding it uncomfortably warm in the kitchen, brought her preserving kettle—an iron affair with a huge hoop handle—outdoors and suspended it from a branch of the tree. She then built a smoldering fire under the kettle, and the fruit was soon simmering in the open air. But when all these arrangements were

completed and little clouds of steam were rising from the mouth of the pot, the children demanded amusement of some kind. Ally, a delicate girl of five, whimpered for mamma, and Bobby, the baby, called for a toy; so Milly made the four prattlers sit down on the ground and began to sing an old rhyme to an improvised tune, beating time in [the air meanwhile with a large wooden spoon:

"Bobby Shaftoe's gone to sea,
Silver buckles at his knee,
He'll come back to marry me—
Pretty Bobby Shaftoe."

To the great delight of the baby, who of course imagined that he was the Bobby in question. The entertainment, however, was brought to an abrupt conclusion by the appearance, from round the corner of the house, of a handsome little white-haired lady. She wore glasses which could not wholly conceal her bright eyes, and carried a small traveling-bag in her hand.

"Well!" she exclaimed to the astounded Milly, "I am your great aunt Amanda—at least I suppose so, though I wasn't aware that Tom had married among the Gipsies."

"What do you mean, ma'am?" asked Milly. The old lady pointed a slender finger at the swinging kettle around which in a semi-circle sat the four black-eyed children.

Milly laughed. "Oh, I see. It was so warm in the kitchen," she explained; "but are you really Aunt Amanda? Papa will be so glad you have come, though we weren't—"

"Expecting me, I dare say. Well, my dear, I am always surprising somebody," and she kissed the young girl warmly.

Mr. Reed's Aunt Amanda was a widow. She lived in New York and had not seen "Tom" since he was a boy. She had always been eccentric, and when she at length resolved that she ought to know her nephew's family, she did not think it at all necessary to announce her intended visit. Arriving in Pemberton this morning, she inquired for and was directed to the Reed domicile, and hearing voices in the rear, she had followed the sound and presented herself to the children in the manner already described.

When Mrs. Reed returned, a few hours later, she found her husband's relative duly established as a member of the household. And what a cheerful, helpful old lady the newcomer was! Before the end of the first week she was Milly's confidante, and Ally's comfort in chief, and Bobby's oracle; for the "tories" she told were extraordinary. But it was to Milly herself that Aunt Amanda's heart turned most lovingly.

"Tom," she said to her nephew one evening after supper, when they were alone together, "what a pity it is that Milly should spend her young life in this humdrum sort of a place; and the child is a beauty."

Mr. Reed looked up with a smile. "We have never thought of Milly as a beauty," he said.

His eldest daughter was a bright, sweet girl, he knew, and that contented him. He had been too much absorbed in business cares to observe further, and indeed he scarcely realized that she was almost a woman.

"It's the shabby, old-fashioned gowns," said Aunt Amanda meditatively. "She ought to be better dressed. I want you to lend her to me for a year or two, Tom. When I left New York it was not with the expectation of a standstill at Pemberton. The doctor had recommended a decided change, and Europe fills the prescription; besides, I am determined to see something of the world. I should like to look at it through Milly's young eyes. Well, what's your objection?"

"Her mother," hesitated Mr. Reed; "there are so many children, you see—"

"Nonsense!" answered Aunt Amanda. "Carrie and Agnes must be sent to school—they are both running wild in this country town—and there will, of course, be some one in to help with the little ones. Come, Tom, don't disappoint me by spoiling my plans. You are my own nephew, you know, and I love the girl," and thus it was settled.

"What a prophet you were, mamma," said Milly, gayly, when she was told of these delightful arrangements. "You said we all had what was best for us sooner or later; though I am afraid you were only trying to persuade yourself that Europe wasn't best for me."

Six months afterward she met her uncle and family in London.

"Who would have thought that that wild little Milly would ever be so handsome?" observed Mr. Risdon.

"She is rather pretty," said his wife languidly, "and I'm told that the singular old woman is devoted to her and will leave her everything she has. The house at Pemberton has been completely renovated, I hear, and all of Tom's debts have been paid."

"Humph!" ejaculated Mr. Risdon, and he probably concluded that his sister had not married so badly, after all; for Aunt Amanda's income was known to be large.

HE PINED FOR THE FOLKS.—The *Carson Appeal* says that a little over a week ago Mrs. George McLaughlin went to San Francisco on a short visit and took her three children. These children had been the constant playmates of "Old Abe," a bulldog about 12 years old. The day after Mrs. McLaughlin left, the dog began searching everywhere about the house, and not finding her or the children, set up a most dismal moaning, and absolutely refused to touch

anything in the way of food or drink. He got thinner and weaker every day until finally Mr. McLaughlin wrote his wife to come home or the dog would die. When she returned the dog was reduced to a skeleton, but as soon as she reached the house, he set up a cry of joy, and when the children offered him food he ate ravenously. He has now recovered his spirits and part of his lost weight.

Sayings of Little Folks.

Alvard, aged four years, had been told if he was a good boy Santa Claus would bring him pretty things; but if he was bad he would bring switches. In the morning he stood in open-eyed wonder over his full stockings and many gifts, and was heard to remark, as he examined each: "Goodness! but I didn't know I'd been such a good boy."

Lloyd, aged three, is just beginning to put on and button up his shoes. Having discovered that the buttons were all on the inside of his feet, he looked first at one, then at the other, and told his mamma his "feet were crooked."

Nina, aged two and a half, remarked, "the weather was propitious," and asked leave for a walk.

DOMESTIC ECONOMY.

Drying Peaches.

EDITORS PRESS:—Some one asks concerning the drying of peaches. We have dried them only for home use, but will tell all we know about it:

We dry the fruit on long tables or boards placed in the sun, and select large firm fruit, as we find we lose less by shrinkage than when it is very ripe. We cover the fruit while drying with cheese-cloth or mosquito-netting to keep the bees and yellow-jackets from bothering it. We do not turn it over, but when it is partly dry push the pieces closer together to make room on the table for more. We consider them thoroughly dried in about a week if the weather is fine. We peel them by hand, and think one person could peel from 150 to 200 pounds a day. When we take them from the tables we put them in baking-pans and place in an oven for about ten minutes to prevent them from becoming wormy during the winter, as we have found that heating them through well will make them keep better.

We have never used sulphur, but are told that it will not only give the fruit a finer appearance, but also prevent it from shrinking so much.

SUBSCRIBER.

Tres Pinos.

LIGHT CAKE.—Two cups of sugar, two cups of flour, two eggs, one cup of sweet milk, two tablespoonfuls of melted butter, two teaspoonfuls of baking powder, two teaspoonfuls of lemon extract.

STEAMED OATMEAL.—Half pint oatmeal, one teaspoonful of salt; put in two-quart basin and pour over it one quart of boiling water; put in a steamer and steam two hours. Do not remove the cover during that time.

SWEET MILK GEMS.—Beat one egg well, add a pint of new milk, a little salt and graham flour until it will drop off the spoon nicely. Have ready your gem pans, well greased and heated. Bake in a quick oven and send to table hot.

DROP CAKES.—One cup sugar, one cup sour cream, one teaspoonful of soda, one-half cup of currants, one and one-half cups of flour; flavor with nutmeg and cinnamon and drop from spoon into a buttered pan; bake in a quick oven.

POTATO PUDDING.—One dozen medium-sized potatoes boiled and mashed; mix with one pint of flour and one teaspoon of salt; roll into little balls; boil three pints of milk, drop the balls in, and stir on the stove till stiff; lift out and serve with butter and sugar.

CRACKERS.—Butter, one cup; salt, one teaspoon; flour, two quarts. Rub thoroughly together with the hand, and wet up with cold water; beat well, and beat in flour to make quite brittle and hard; then pinch off pieces, and roll out each cracker by itself and bake.

APPLE SAUCE.—Core and bake, filling the holes with sugar, seven or eight apples. When very soft, mash them through a sieve into a small pudding dish; grate in the rind of a fresh lemon, and spread over the top the white of one egg beaten with half a cup of sugar, and brown slightly. Eat cold.

FRIED RAW POTATOES.—Pare and slice thinly into cold water some medium sized potatoes, drain in a colander and put into a frying-pan in which are two tablespoons melted butter; cover closely ten minutes, removing only to stir them from the bottom to keep from burning; cook another ten minutes, stirring until lightly browned.

SALAD DRESSING.—One heaping teaspoon each of salt and mustard, two tablespoons of thick, sweet cream, one tablespoon of butter, three of sugar, one-third of a cup of vinegar, the well-beaten yolks of two eggs; add mustard to eggs, beat well; add sugar, salt, cream; stir all well together and place over the fire, and stir constantly until it thickens; add vinegar last, pouring the dressing over the salad and mixing it well.



A. T. DEWEY.

W. B. EWER.

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SAN FRANCISCO:

Saturday, February 23, 1889.

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Stockton Combined Harvester and Ag'l Works.
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Agricultural Implements—P. P. Mast & Co.
Shorthorn Cattle Sale—Killip & Co.
Rebel Estate—D. B. Wier.
Rebel Wire—J. J. Robinson.
Curtis Publishing Co.—Philadelphia.
Real Estate—S. J. Stabler.
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Headline—T. Fowler, Pittsburg, Pa.
Harrow—Higginum Mfg. Co., Higginum, Ct.

See Advertising Columns.

The Week.

Although the long dry spell was broken toward the close of last week by welcome showers, which were heavy in some of the middle counties and left considerable snow upon the mountains, the wondrously fair weather soon resumed its sway and gives no promise of a speedy abidation. Yet, as may be gathered from our agricultural notes, a cheerful tone prevails among grain and grass growers; the crops are looking well and no great anxiety is manifest, though rain whenever it comes will be hailed with gladness.

The wide acreage seeded this year and the excess of the demand for nursery stock over the supply of favorite varieties continue to be common topics. In the State and National Legislatures there is still a deal of talking, without much else to chronicle; and taken for all in all, the week has seemed less eventful than usual.

Fruit and Freight.

It is a good time of the year to have something encouraging announced concerning the overland freight rates on fruit and fruit products. We have frequently alluded to the excessively large share of the gross receipts received for fruit at the East, which was handed over to the transportation companies. The annual report of the Fruit Union printed in the RURAL of January 19th makes very forcible statements of the facts, and among others the following: "The transportation companies receive the lion's share and pocket \$345,156 28, or nearly \$1.50 for every dollar which finds its way into the producer's purse."

This state of affairs will certainly not promote the extension of the fruit interest. The Fruit Union appointed a committee to confer with the railway managers on the subject, and if an early and favorable report can be had it would have an enlivening effect upon all branches of industry which are based upon the success of the fruit product.

The evil of high rates is just now bearing very heavily upon our canned-fruit interest, and the character of the coming year's operations will be shaped largely by the action of the transportation companies. The Call of Feb. 19th says:

A strenuous effort is being made by fruit-canners and produce-dealers to reduce rates on California commodities. Several of the leading shippers have waited on General Traffic Manager Stubbs of the Southern Pacific with a view of inducing him to take the matter up with Chairman Leeds of the Transcontinental Association. There has been a tremendous pack of peaches in Maryland this season, and the rate from Baltimore to Chicago is only 22 cents. The result is that the Chicago dealers are not purchasing California canned goods at all this year, for the three-pound can of Maryland peaches is selling at a considerably lower rate than the 2½-pound can of the California pack. This is owing to the rate of \$1.10 charged by the transcontinental lines. All the wholesale merchants and shippers are carrying big lines of fruits which they cannot dispose of. The worst of the matter is that the Maryland goods have obtained a monopoly of the market, and there is only a small demand for other California fruits.

Mention is made elsewhere of a meeting of fruit-growers to be held March 1st at the office of the State Board of Horticulture in this city. It should be well attended, and, no doubt, action can be had which may tend to clear up the situation. All those interested in production and trade will be welcomed at the meeting.

Discussion on Fruit Marketing.

As the next regular meeting of the State Horticultural Society would be February 22d, a national holiday, the president has decided to postpone the meeting until the following Friday, March 1st, at 1 o'clock P. M., at the office of the State Board of Horticulture, 220 Sutter street, San Francisco.

The subject for discussion will be "The Marketing of California Fresh and Dried Fruits." Invitations to attend and participate in the discussion have been extended to a number of gentlemen prominent in the fruit trade, and it is hoped that a large attendance, both of invited guests and regular members, will be had. The subject is of the greatest importance and probably mutual advantage will result from a conference among all concerned. The meetings of the society are always open to all interested in horticultural matters.

A DECISION ON MINERAL LANDS.—A decision just rendered by the U. S. Supreme Court will be encouraging to those who may be in fear of dislocation through claims of mineral locators. It seems that John Gale acquired certain lands from the California & Oregon railroad which were granted to that corporation by Act of Congress, and were subsequently transferred to the Central Pacific Company. The defendant established a mining claim on the ground, asserting that all mineral land is exempt from settlement and by Act of Congress is public domain. The Supreme Court held that land granted by Congress without any specific limitations as to its settlement does not come under the reserving Act pleaded by the defendant, and so the plaintiff's title is valid. The court, in making this ruling, states that were the defendant's plea valid, it would endanger the title of thousands of homesteads situated on mineral lands.

Barley and Corn.

EDITORS PRESS:—In nearly all the combinations of the grains for the feeding of cows and hogs I notice that cornmeal enters largely. Now corn will not mature in this section (immediately on the coast), but it is the home of barley, and I wish to know how nearly barley-meal will fill the place of cornmeal in quality and feeding value.—J. W. HALL, Miller, Mendocino Co.

We should like to hear from practical stock-feeders of their deductions from experience in the use of the two grains. Barley is of course largely used in this State as a substitute for corn in the feeding of animals—not exactly as a substitute for corn either, but our stock-growers use barley for the same purposes that farmers in the great corn regions of the country use corn. We would like to print half a dozen letters from our readers on the point advanced by Mr. Hall.

Theoretically, barley and corn may be compared by their analyses about as follows:

Complete Contents.	Barley.	Corn.
Water.....	14.3	14.4
Organic matter.....	83.1	83.5
Albuminoids.....	9.5	10.0
Carbo-hydrates.....	66.6	68.0
Crude fiber.....	7.0	5.5
Fat.....	2.5	7.0
Ash.....	2.6	2.1
Digestible Nutrients:		
Albuminoids.....	8.0	8.4
Carbo-hydrates.....	58.9	60.6
Fat.....	1.7	4.8
Nutritive Ratio.....	7.9	8.6

These figures show what the chemists say of the comparative composition of the two grains. Feeding results do not always correspond exactly with analyses, but still compare with them so closely that analyses are now generally considered of direct practical account. Perhaps the most notable point of difference between barley and corn is seen in the large percentage of fat, to which is mainly due the heating and fattening effects for which corn is famous.

Prof. E. W. Stewart, in his book "Feeding Animals," has the following paragraph in which the two grains mentioned by our correspondent are compared:

"Indian corn has only 2.1 per cent of ash, and this not rich in phosphate of lime, etc. It has less of mineral constituents required by the growing animal than barley or oats, the former having 2.6 per cent and the latter three per cent. We desire to direct attention to corn as an improper food to be given alone to young animals. Corn is quite too heating and fattening and too poor in muscle-forming and bone-building food to be given alone to young animals—in fact it is much better to discard it altogether in feeding animals under six months old."

The proper place of barley as a feeding grain cannot be learned from Eastern and European investigations because barley is so little used as cattle food. It is usually too valuable for malting to be used by the feeder. In this State, however, barley is a staple food grain, and the State is admirably adapted to its production. Any information which can be given to many who, like Mr. Hall, live outside of the "corn belt," will be welcome.

Of Interest to Farmers.

Mr. R. G. Sneath, who has large farm-dairying interests in San Mateo county, and evidently entertains a sincere desire for the progress of the honest industries of our State and country, at our request, has written an article relating to the San Francisco water-front, showing some sensible improvements which should be made for the more economical receipt of produce from the interior, and shipment of goods from San Francisco to consumers and tradesmen in the interior. The fact that all the enormous extra expenses now incurred in drayage and warehouse transportation have sooner or later to be paid (in large proportion at least) out of the pockets of farmers, should make them interested in this matter. We would especially call the attention of the Grange Legislative Committee now at Sacramento to his article in this issue.

ORANGE SHIPMENTS.—The Union and Central Pacifics seem to have the advantage of the Santa Fe on the orange crop this season. The bulk of the shipments is all going East via Sacramento, Ogden and Omaha. A train of 11 cars left Riverside on Wednesday evening last, and another of 10 cars on Saturday evening. Very rapid time is being made by these specials, and their cargoes are expected to get into Chicago in first-class condition.

QUERIES AND REPLIES.

Horses "Rattleweeded."

EDITORS PRESS:—I notice an article in the last number of the PRESS on the question "Is Rattleweed Poisonous?"

I have had some experience in the use of hay that was made from volunteer wheat and barley, well filled with what is known as "rattleweed." I bought ten tons of a neighbor who himself had lost six head of horses from the same hay.

I came here in October last with a couple of fine-blooded mares, both with foal. They were in fine order, gentle, and would work anywhere I put them. About a month after I settled here, I noticed that the younger mare began to act badly, throwing her head up while being bridled and refusing to be led out of the barn, rearing up on hind legs and balking. In a short time the older mare went the same way, and next an old horse I had—all acting in the same strange way.

I concluded they were "rattleweeded," and I could do nothing with them in the shape of work or driving. I took them off of the hay and commenced feeding barley and straw, and in a week I could do anything with them—gentle as before, though much reduced in flesh. They both lost their foals. I have had no further trouble with them since.—S. F. FREDRICK, Kirkwood, Cal., Feb. 12, 1889.

Don't Believe They are "Locoed."

EDITORS PRESS:—Regarding the loco-weed business, I have been solidly of opinion for many years that the whole thing is a humbug. It is always difficult to prove a negative. But I founded my belief on several facts: (1st.) In some places horse-insanity was laid to the charge of one weed, in another place to an entirely different plant. (2d.) There was no direct proof that the alleged effects were consequent on eating it at all. (3d.) In any given pasture only a few horses were affected. (4th.) Very seldom did any horse go crazy, except those worked almost to death. (5th.) I have known many locoed horses to be just as bad after months of strict confinement to hay and ground barley as when on pasture. (6th.) I have known hundreds of horses to feed for months over ground infested by rattleweed—the supposed chief offender—and none go insane unless excessively worked. (7th.) It seems just as reasonable to impute the blindness produced by too hard work to rattleweed as to impute insanity. (8th.) It would be just as reasonable to suppose that all the insanity in the human race arises from eating some particular food—cucumber pickles for instance—as that horse-insanity arises from eating some weed. In 99 cases out of 100 it arises from abuse and overwork, with a constitutional tendency that way, which brings me to the next most important reason. (10th.) In every case I have ever known the locoed horse was a natural fool—narrow between the ears. Such horses are usually good pullers, but fit for only a big team. This is usually the characteristic of the same horse when locoed, but intensified. Whereas before he had but one small idea, now he has only half of one. A horse of little sense may yet be quite nervous, and a daily beating for a month or so with work beyond his strength and frequently insufficient or improper food, will sometimes push him over the narrow line between sanity and insanity, and then some innocent weed (that probably the horse never tasted at all) is lugged forward as the cause—anything to divert attention from the real cause. It is the usual custom (within the last few years a few exceptions,) in the valleys of the State, the main grain-fields, to work horses in harvest from sunrise till noon without water, no matter how hot the weather. This thirst alone would often drive the owners of these horses to insanity, if they had to endure it day after day, especially as some of them suffer from the same affliction—a deficiency in good sense—shall we say horse sense? The whole loco theory is an absurdity in my opinion, and as unreasonable as knocking out a horse's teeth to cure his sore eyes—a silly brutality.—W. S. PROSSER, Shingletown, Feb. 12, 1889.

Morning-Glory.

EDITORS PRESS:—Would any of your readers who has had experience, and has been successful in killing wild morning-glory, give an account of how it is done? I saw it stated some time ago in the RURAL that A. T. Hatch had completely eradicated a patch of the weed in his orchard by continuous plowing. Would Mr. Hatch kindly inform me if that statement is correct, and how often the plowing was done?—JOHN RITCHIE, Fresno.

EDITORS PRESS:—Plowing is not the word. Cut the morning-glory with a bar weed-outter like the "Hogue" under the surface, say about four inches, so often that it can never be seen at the top of the ground, and that will smother it.—A. T. HATCH, Susan.

Forage Plant for Moist Land.

EDITORS PRESS:—I have some land too wet for alfalfa to grow well on for more than two years without renewing. Is there not something better suited to this class of land for either hay or pasture? Land contains a very little alkali, but not enough to injure the growth of barley, and being of a springy formation.—M. S. D., University, Los Angeles Co.

VALLEJO is threatened with another water famine.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

NO DROUTH YET.—Haywards Journal, Feb. 16: The present stretch of balmy summer weather is a surprise to almost every farmer. Still we cannot seriously complain. The cold snap a few weeks back was of great benefit, and since then the mild weather has not been an injury, but the young grain is up fresh and green, and feed in the hills is by no means dying. Many fields of grain planted after the last rains are in excellent condition, and the 500 acres planted on the Meek ranch before the rain came, is the picture of health. We are not at all alarmed.

Butte.

BLACKBERRIES IN FEBRUARY.—Gridley Herald, 14: Saturday last Dr. Todd picked a pint of ripe blackberries from some bushes in Mrs. Miller's door-yard. We saw the mess Monday and ate several of the berries. They tasted the same as those picked during the regular season.

Contra Costa.

WANTS TO BE AN AGRICULTURAL DISTRICT. Martinez Gazette: We think the desire is general that Contra Costa should be set off as a district by itself and hold its own District Fair under the provisions of the law by which some counties, inferior to ours in population and wealth, are enjoying that privilege. We are at present united to S. F. and Oakland, but have always held our own county fair, and are very slightly interested in the District Fair as now constituted. Let us be made a district by ourselves, by which we will be entitled to our share of State aid.

Kern.

ONE JERSEY COW.—Tulare Register: G. W. Kirker, living on his claim seven miles southeast of Delano, has a Jersey cow which has been kept all along tethered out on the plain with no other feed than the wild grasses, and yet the record kept by Mrs. Kirker shows that during January she made from the milk of this one cow 51 pounds of butter, besides selling 15 gallons of milk which had not been skimmed. Since the 20th day of May, up to the 7th day of February, they sold as the product from this cow, \$78 50 worth of butter and milk. Most of the feed during this time was dry alfalfa, and the cow would have done better had she been fed more nourishing food. The magnitude of the January product will be appreciated when it is known that the calf is now a year old.

Los Angeles.

BLUE-GUM FUEL.—Orange Tribune: The great eucalyptus trees along the front of Dr. McCoy's beautiful place are one by one falling before the chopper's axe. The last one felled at 14 years of age was cut up into three and one-third cords of body wood, worth, when dry, \$7 or \$8 per cord. What's the matter with a eucalyptus grove as a regular crop?

RACING ORANGE TRAINS.—L. A. Herald, Feb. 12: The race between the orange special trains is over, the time made to the Missouri being about the best on record for freight traffic. The S. P. and U. P. train, which left here on Wednesday night, reached Ogden in 56 hours, and made the run from that place to Omaha in 40 hours, being exactly four days from this city to the Missouri river. The Santa Fe special, which left San Bernardino at 3:30 A. M. on Friday last, pulled into Kansas City at 6:30 this morning, the time for the run being four days and three hours. As regards the trip into Chicago, each road claims that it can make the trip from the Missouri river in the fastest time, so it may be considered a "stand-off." Two more specials, one over each competing route, will leave the city on Wednesday, and two more are announced for Saturday.

Modoc.

POISONED BY WILD PARSNIP.—Alturas Independent, Feb. 14: We understand that a considerable number of cattle have died on South Fork lately from eating wild parsnip. We heard that Jones say last Monday that Charley Williams lost several head and the corporation have lost probably 20 head, and other parties are losers from the cause, and that altogether probably a hundred head have died. Last fall Charley Williams employed some Indians to dig wild parsnip. They dug up 75 sacks, and Mr. Williams was careful to destroy it, but by some means one sack was overlooked and left in a patch of willows. The cattle found this one sack, and it was what did the mischief. Arthur Jackson says if when an animal is found suffering from this poison, a sharp knife is stuck into the abdomen on the left side, just in front of the hip-bone, it will give relief every time.

Napa.

CROPS PROMISING.—Napa Register, Feb. 15: Crops of all kinds look very well and nothing is suffering for rain. The outlook is promising. Pasturage was never better and stock is in better condition than usual at this season of the year.

NEW ORCHARDS.—Mr. Duff, who last fall purchased 50 acres of land four miles north of town, on the east bank of Napa river, is having 20 acres of the tract planted to fruit trees of standard varieties. He has otherwise improved his land by tilling the lowest places. W. A. Fisher has enlarged his orchard by 15 acres this spring, and now has one of the

largest and thriftiest orchards in the valley. Capt. McFee, who bought the Gold place on the Big Ranch road last fall, has set out 20 acres in one tract on land that is exceedingly well adapted to fruit-growing. These are but a few of many similar improvements made this season.

AROUND NAPA JUNCTION.—Vallejo Chronicle, Feb. 15: From Geo. W. Watson, we gain the information that 1150 acres more have been plowed up around the junction than for several years past. Part of this is the Glassford ranch of 600 acres, which is now being farmed by the Corcoran Bros. Mrs. R. D. Watson has put in 800 acres—400 acres more than last year—and Frank Sanderson has plowed up 300 acres, 150 of which is new. Mat Scallely has plowed up 150 acres; James Freund, 150; P. Walsh, 100; G. W. Watson, 150; Mat Lynch, who has charge of the Fagan, Tormey, and Sheehy estates, has put in 400, and W. Middleton, 150. The Hessian fly has been growing less yearly, until now it is almost extinct, and it is said that a small insect found to beat in the same places where the fly existed has been fatal to the fly, but it is harmless to grain. Dairying in this vicinity is in full blast. The grass never was in a more advanced state, and was as good on the first of January as it was March 1st of last year. The frost has done no damage. The fruit trees are shooting forth into buds. The place has been improved by a beautiful station-house and made lively by the completion of the Santa Rosa road, and in the enjoyment of good health and prospects for good crops, the people are happy.

San Diego.

BLASTING OUT HOLES FOR TREES.—San Diego Sun, Feb. 14: "Few people elsewhere in the world may ever have heard of blasting holes to plant shade or fruit trees," said a cultivator this morning. "Yet the practice is common here and shows good results. In most places there is found sufficient top soil for any purpose, but as land has become valuable, people have cast about for means to utilize lands where the coarse sand-rock comes too near the surface for successful tree-planting. A blast, well put in, creates a pocket of broken rock mixed with top soil, which furnishes a basin to hold moisture, as well as a deeper and cooler hold for the roots. It is yet too early to say what will be the ultimate results of such planting; but in a climate like ours, where a superfluity of rainfall is not likely to occur, it will no doubt be entirely successful."

SHEEP IN THE OTAY.—Press, Feb. 14: At this season of the year many of our sheep-owners located near the boundary line up the Otoy, and who feed their flocks on the Mexican side, are driving their sheep on to the American border, where they remain a few months for lambing and shearing. Some of these flocks are herded 170 miles down in the interior of the peninsula, where they find abundant feed on the hills and in the fertile valleys that there abound. Not less than 30,000 of these American sheep are yearly driven to our borders, and at the present time Hugh O'Neil, the sheep man of the Otoy, has 16,000 on this side of the line, and Neito Echenique has 10,000 here, with 10,000 yet on the way, besides other bands that are expected to arrive and remain here during the lambing and shearing season, thus saving the custom duty of 20 per cent on lambs and 10 per cent on wool. The shearing season begins about the middle of March and lasts until the middle of April, when about 200 tons of wool will be clipped. This year the feed is said to have been remarkably good, and the sheep are looking fine and the lambs are doing well, 18,000 of which may now be seen innocently besporting themselves among the wild oats up the valley.

San Joaquin.

GLANDERS.—Stockton Independent, Feb. 7: Veterinary Surgeon Orvis reported to the Board of Supervisors that he visited A. Roffo's place near Linden yesterday morning and found three cases of glanders and one suspicious case. Mrs. Talbot has had a black mare destroyed, and promised to have a gray pony on her place killed. These cases were included in a previous report. The Supervisors referred the report to the District Attorney, who promised to enforce the law and compel the owners of the stock to kill the diseased animals.

AN INDIAN'S HOMESTEAD.—A patent was received at the Land Office a few days ago for a homestead entered by Chenk Ha, an Indian, who had complied with the terms of the Act of 1862 governing homestead entries. The patent is different from any heretofore received at the Land Office at this place in one respect: It contains a provision that the property shall not be liable to alienation, either by the voluntary act of the homesteader, by reason of a judgment or decree of any court, nor to satisfy any judgment for a debt; neither shall it be liable for taxation for any purpose whatever. The proviso, which is inserted in accordance with the provision of an Act of Congress approved in 1883, is to continue in force for the period of 20 years. The land is near Fresno Flats, and is good agricultural land.

San Luis Obispo.

WATER BY TUNNELING.—Ranchita Cor. S. L. O. Tribune: Mrs. Van Eaton, who has been living here for the past two years, after having two wells sunk nearly 100 feet each in depth in the valley, with no water, now has plenty of water 300 feet above these wells in a gulch upon the mountain-side. The first show

of water was discovered by one of her neighbors. While going up the gulch he discovered wet earth in the bank, and told her he thought that if she would have a tunnel run in on the wet streak she would get water. She concluded to try, and obtaining help had the tunnel run in about 40 feet, and has now plenty of water. She is one of the happiest women in the neighborhood, and intends to pipe the water to her home. So it seems that many can find water by going up on the mountain-side instead of seeking for it in the valley.

Santa Clara.

OLIVE OIL.—San Jose Mercury, Feb. 16: E. E. Goodrich of the Quito Olive Farm stated yesterday that he will exhibit this year five varieties of olive oil, labeled similar to the Italian method of designation according to seasons. There will be the oil made from the olive when it is first brought in from the trees, fresh and green; also that made from olives which have been dried. These two oils differ as to a slightly bitter flavor that is found in one and not in the other. Mr. Goodrich further stated that he had applied to the U. S. Government for authority to place samples of the Quito olive oil in the American exhibit at the Paris Exposition and have it brought in competition only with oil from olives raised under similar conditions. "There is a great difference between the olive of the plains and the olive of the hills," said he, "and if my oil from olives of the plains were compelled to compete with European oil from olive trees grown on hill-land, where perhaps trees have been bearing for 200 years, it would not be just. If they make the distinction between that from the hillsides and that from the plains, I am willing to have the comparison made, and even honorary mention from such a source would be a triumph for the American olive."

Santa Cruz.

BEET CONTRACTS.—Pajaronian, Feb. 14: Supt. Waters has been interviewing farmers this week in reference to beet contracts. A considerable increase in the contracted amount has been secured, and if this section receives a fair rainfall in the next two months there will be a large acreage in sugar beets this year. The best land in the valley is being contracted, and the acreage secured is sufficient for a heavier beet crop than the factory crushed last year. The beet factory will run this year, and it will have a big crop to handle, providing we have a fair rainfall before May. Outside of this valley 600 acres have been contracted.

Shasta.

TREES AND VINES.—Redding Democrat, Feb. 13: Monday we took a ride with C. W. Pope down to his farm and the McCoy plantation on Clear creek. We noticed thrift and improvements all along the road. Mr. Pope has just finished setting out a ten-acre orchard and is preparing to sub-irrigate the young trees. Mr. Davis, adjoining Mullen's place, has several men at work clearing land and planting trees and vines. The owner of the place adjoining McCoy's is setting out a new orchard of ten acres adjoining the old one of 20 acres. Mr. McCoy will soon finish planting an orchard and vineyard of 80 acres on land as fine as can be found in the State. The majority of his vines are the best quality of raisins, and the orchard consists of peaches, prunes, apricots, almonds, walnuts, and a few other varieties.

Solano.

STRAW-SMOTHERED SWINE.—Dixon Cor. Republican: Some weeks ago Louis Hanke missed three fine young hogs from his farmyard. Just about the same time he noticed that his straw-stack had caved in at the side where the stock had eaten under. As time rolled on and no grunters returned, he concluded that they must be entombed in the straw; so on Friday last, after a lapse of fully two weeks, he proceeded to excavate the straw-stack, and sure enough there were two of them taking their last long sleep and the other one still alive, but in a very critical condition. At this writing, however, he is convalescing quite rapidly and with proper care will survive.

LARGE ACREAGE SEEDED.—Vallejo Chronicle, Feb. 15: More land has been plowed up and seeded with grain this year than for ten years past. There is a confidence among farmers that has not been experienced for some time past, and the result is that land that has not been turned up for years is this year put to grain. As far as we can learn, the increase amounts to fully 2000 acres. One reason for the increase is the disappearance of the Hessian fly that was so destructive to crops. The outlook is splendid, and farmers do not fear for dearth of rains. The acreage in Vallejo township plowed up is very large, approximating 6500 acres.

Sonoma.

"STRAWBERRIES EVERY MONTH."—Pealuma Courier, Feb. 13: Mr. Roberts, living about six miles from town, has had strawberries every month during the past year. Last week he supplied the market here with fine ripe berries. Not little scrawny, half-ripe berries, but large, scarlet ones that would melt in your mouth.

PLANTING THE OLIVE.—Sonoma Index-Tribune, Feb. 15: The wonderful success of Col. G. F. Hooper's experiments with the olive, together with a large and growing demand for pure olive oil, has encouraged many of our farmers to plant out large numbers of olive trees. E. P. Thomson of Agua Caliente has set out this season over 600. Those set out last year,

some 500 in number, are vigorous and growing finely. Only five per cent failed to take root. These were less than three inches in height. None over that size died. Robt. F. Clark has also set out this season over 1000 of these trees, and many other farmers have planted from 100 to 500.

SONOMA VALLEY ORANGES.—The orange crop on the C. C. Carriger ranch is turning out exceptionally fine. One tree alone has netted this season \$50. There is a ready market for these oranges and in addition to those shipped to S. F., large quantities find their way to Petaluma and Santa Rosa.

SHEEP.—Santa Rosa Democrat, Feb. 16: The number of sheep in the northern part of Sonoma is much smaller than usual this year. Severe losses were sustained last season, and but little effort has been made to restore the former number, since many of the sheep raisers regard a smaller band of sheep in good condition as of greater value than a ranchful of lean, half-starved wool-wearers. The ranches need a rest, it is thought by those largely engaged in the business, as for years past the feed has been eaten to the roots and the sheep have been unable to find enough. Now the feed is abundant and the sheep, though less numerous than usual, are looking fat and clean and less like their gaunt enemy, the coyote.

Stanislaus.

SKILLFULLY TRANSPLANTED.—Modesto Herald, Feb. 14: Mr. Vogt was entirely successful in moving two orange trees, bought by Mr. Harrold, to the latter's farm near Burnett's Station. The trees are over 20 feet in height and loaded with oranges. But two oranges fell off in transporting the trees over a distance of about 17 miles. The trees were undermined, and, with their roots and dirt clinging thereto secured in a box, were hoisted into large wagons by means of blocks and tackle.

Sutter.

GRAIN PROSPECTS.—Marysville Appeal, Feb. 14: From M. Marcuse, who had just returned from a visit to the Marcuse ranch in Sutter county, a reporter learned yesterday that the outlook for large crops is excellent. Mr. Marcuse said that the early-sown grain was looking fine everywhere, and the late sown, such as is above ground, is also looking well. There has been a great deal of winter sowing, and the acreage in grain is large. The ground remains in good condition. So far, there has been no suffering on account of the absence of heavy rains during last month, and Mr. Marcuse thought that there would be no cause to complain if no rain should fall until March, in the absence of prolonged north winds. On the Marcuse place this season there are about 1600 acres in grain, and an orchard of 60 acres is being planted.

Tulare.

AMBITIOUS VINES.—Visalia Delta: From the vineyard of Daniel Wood, near Farmersville, we have received a section of grapevine of one season's growth, measuring 27½ feet; and from the vineyard of T. A. Bell, in the North Tulare country, 2200 feet above sea level, we have a runner 23 feet 7 inches in length, the growth of the past season.

LARGE FIG ORCHARD.—Visalia Times: J. D. Waugh, who resides at the mouth of Antelope valley, about 16 miles from this city, has just finished planting 60 acres in White Adriatic figs. The trees are planted 30 feet apart, and it took 2900 to cover the tract of land prepared for them. As an experiment, he intends to plant five trees of every variety of fruit that he can secure. There is no doubt that figs will thrive on his place. A tree planted there in 1876, on a hogwallow, is now 16 or 20 feet high, 19 inches in diameter, and has yielded three crops of figs a season for five years. The tree was never irrigated.

WINTER IRRIGATING.—Tulare Register: We have time and again urged the advisability of irrigating whenever water can be secured, even during the winter when the soil stands in no immediate need of water. As an example of the lasting benefits of a thorough wetting we would instance a piece of 80 acres belonging to J. B. Zumwalt. The field was thoroughly irrigated three years ago, while other land in the vicinity received no water, and the result was that last season, dry as it was, this 80 acre piece had a splendid crop while the wheat on adjacent land petered down to an absolute failure.

A SAMPLE OF WHEAT.—Visalia Times, Feb. 14: W. B. Fudge and J. W. Wooley are farming 900 acres of land owned by M. J. Wells at Bone canyon, and yesterday brought to this office a sample of the grain that was dry sown in November last. This bunch of wheat is all of 20 inches in height and has a bright, healthy appearance. These gentlemen are now seeding 100 acres to barley on the same ranch, and say that all the grain in that vicinity looks well and will not need rain for a week or two yet.

Yuba.

THE CROPS.—Marysville Appeal, Feb. 15: Although the rainfall since December has been very light, the grain crops in this neighborhood bid fair to be large. Early sown has made a good start, and much winter sowing has been done. The ground remains in fine condition, and there will be no injury to grain should no rain fall for several weeks yet.

SPRING WOOL.—The Marysville Woolen-Mills have lately purchased several choice lots of spring wool. The price paid was 20 cents, being higher than at any time since 1883. The prospect is that there will be a further advance.

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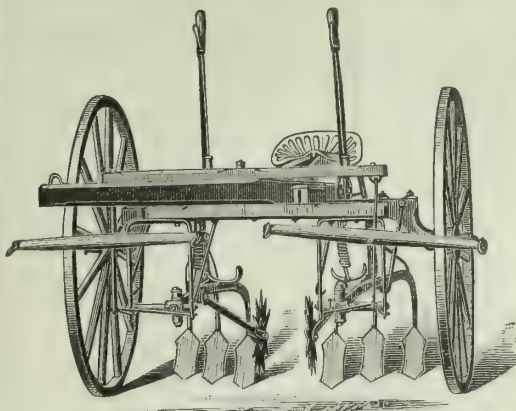
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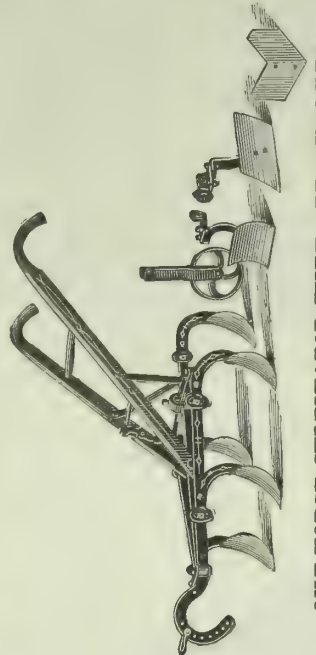
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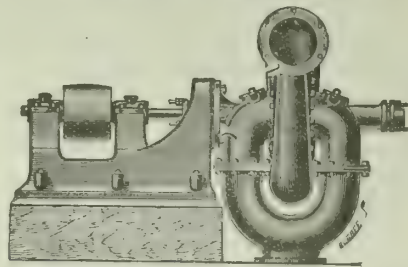
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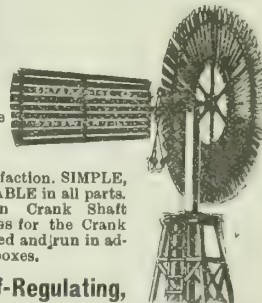
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THE STABLE.

Shippee's Breeding Farms.

[By J. C. H.]

The Pacific Coast has proved itself a region finely adapted by nature to the breeding and highest development of the horse. We give in this issue photo-engravings of Hawthorne and Tempest, two noted animals bred by L. U. Shippee, Mayor of Stockton. In this connection it seems appropriate to give a succinct description of the stud and surroundings of this successful breeder of horses and other fine stock.

Last week we sped over the old turnpike road behind a pair of Hawthorne colts, aged respectively four and five years, at a three-minute gait from Stockton to Mr. Shippee's Home Farm, situated five miles north of that city.

This ranch contains 1000 acres of very rich

bearing; while suckling colts, jennies and lambs are playing and gamboling in the fields close by, making a picture that should render rural life attractive.

Mr. C. D. Miller, the efficient manager for Mayor Shippee, was our guide on this occasion. We learned that Mr. Shippee commenced importing fine stock over 15 years ago. His first importation of horses was a carload of mares of the celebrated Daniel Lambert stock. His policy has been to procure strains of the best blood in all classes and breed in special lines—viz.: runners, standard trotters, roadsters, draft horses and jacks and jennies.

We append a concise description of some of the most noted animals in his stud.

Standard Trotters.

At the head is Hawthorne, whose pedigree and likeness appear on another page.

Campaign, bay stallion, three years old, 16 hands high, weight 1125 pounds, sire Electioneer, dam Lilly B by Homer, and a blood descendant of Sally Chorister. Mr. W. H.

In the colt stable there were a bay stallion 2 years old. Sire Hawthorne, dam by Echo by Rysdyk's Hambletonian.

Bay colt, 2 years old. Sire Hawthorne, dam by Daniel Lambert.

Chestnut stallion 2 years old. Sire Hawthorne; dam Mocking Bird; record 2:38 as a two-year-old; by Priam, full sister to Honesty, with a four-year-old record of 2:25½.

Dark bay stallion 2 years old. Sire Long Island, dam by Nutwood, g. dam by Trustee.

Chestnut stallion 2 years old. Sire Dexter Prince, dam by Nutwood; g. dam is the dam of Magdallah and Reliance.

Bay stallion 2 years old. Sire Elect by Electioneer, dam by Nutwood.

Thoroughbred.

John A, aged stallion, bred by John Cardinel. Sire Munday; record 1:42.

Pionic, filly, imported from Tennessee in 1887. Sired by Mr. Pickwick; sire and dam Countess, imported from England.

Two-year-old stallion, 16 hands high, by

with fine buildings, and is under a high state of cultivation.

Mr. J. H. Whiting, who last season handled the celebrated mare Tempest, record 2:19, (whose portrait and breeding appear in this issue) showed us through the stables.

We herewith give the names and breeding of some of the standard trotters and thoroughbreds under his charge:

Moses S, stallion, 15½ hands; dark bay with black points, four years old. Sire Hawthorne, dam McCracken's Blackhawk; record, 2:29½ as a two-year old.

Gloster, 16 hands, mahogany bay, no marks, black points, five years old. Sire Hawthorne, dam McCracken's Blackhawk.

Two-year-old stallion, bright bay, unnamed. Sire Hawthorne, dam by Priam, by Whipple's Hambletonian.

Birchwood, deep black, 15 hands 3 inches, three years old. Sire Hawthorne, dam Morgan Rattler; a great producer of roadsters and trotters, many of which have made records under 2:30, and g. dam of Tempest.



STANDARD TROTTER MARE TEMPEST, OWNED AND BRED BY L. U. SHIPPEE OF STOCKTON, CAL.

land, with a few great oak trees, while on each side of the road and the land leading up to the two-story dwelling house are rows of evergreen pine and cedar.

At the end of the lane stands the "Jack and Jenny barn," and close by, the tool-house, wagon-house and storehouse for implements. From this point the lane runs at right angles one-fourth of a mile, with a large sheep-house at a short distance and colt stables, corrals and paddocks intervening until the stud building is reached, all being on the left of the lane.

Opposite the stud building, on the right of the lane, is a large building 40x100 feet, with capacity for storing 200 tons of hay. It has roomy stables all around it, except in front. A short distance beyond are a succession of low structures that seem to have been erected without any eye to architectural beauty, but rather to meet a demand for more stable room.

The plan, arrangement, and construction of buildings, paddocks and environments have been made with a view to convenience, utility and comfort. Three artesian wells with windmills, and a system of pipes give an ample supply of water for this great breeding establishment.

On the adjacent orchard are apple, peach, and apricot, together with pear and fig trees over 30 feet high, and orange trees now in

Parker owns a half-interest in this magnificent stallion, a fuller description of which with out will soon appear in the RURAL.

Long Island, stallion bred in Kentucky (purchased by Mr. Ohas. Marvin for Mr. Shippee when two years old). Sire New York by Rysdyk's Hambletonian out of a Clay mare. Dam Mambrino Patchen, second dam Bonnie Scotland, and 15 straight crosses of thoroughbred.

Abbie, stallion, dark bay, six years old. Sire Abbottsford, record 2:19½; grand sire, record 2:21½; dam McCracken's Black Hawk, the dam of Ha Ha, record 2:22½; also Moses, record 2:29½ and 2:30 as a two-year-old.

California, Lambert stallion, record 2:30, bright bay, black mane and tail, 4 years old. Sire Ben Franklin by Daniel Lambert; dam by Daniel Lambert, having 34 animals in 2:30 class—the third best record in the United States and the best strain of Morgan blood.

Henry. Stallion 5 years old, bay with black points, weight 1160. Sire Hawthorne, dam by Nutwood, g. dam, dam of Reliance, 2:22½, and Magdallah, 2:23½.

Kilrain, 3 years old, bright bay. Sire Hawthorne, dam a Whipple mare. Two-year-old record, 2:35.

John C. Shelly, stallion 5 years old. Sire Hawthorne; dam Morgan Rattler, g. dam by Jim Crow, 2:29½ in a race and trial record 2:26.

King Ban, out of a Great Tom mare.

Two-year-old stallion, by Longfellow; took all first premiums at Kentucky fairs as a suckling colt.

Bay stallion 2 years old by imported Prince Charley, dam a Glenelg mare, g. dam full sister to Norfolk.

The above-mentioned 2 year-old animals were among the 22 head imported by Mr. Shippee in 1887 and 1888, and give much promise in size, style, speed and action of making noted and desirable breeding stallions.

Tilla O, who won all 2-year-old stakes in California that season.

Laura D, by Norfolk, dam Tilla O, with foal by John A, full sister to Eva Bascom by Lodi, and 15 other yearlings and 2-year-olds from following sires: Hinds, King Ban, Glenelg, Ten Broeck, Longfellow, Long Taw, Mr. Pickwick, Falested, Billet, Luke Blackburn, Norfolk, Joe Hooker, Wildidle, Woodburn, Lodi, Munday, Imported Prince Charley and mares Alameda, by Spring Bock, that won the noted stakes of 1886, and Napa Queen, by Norfolk, the dam of Nighthawk, and many other thoroughbreds.

We also visited the French Camp Farm, adjacent to Lathrop, which Mr. Shippee uses for handling colts, training and headquarters for draft horses. This farm contains 700 acres.

Sorrel stallion, two years old. Sire Hawthorne, dam by Whipple's Hambletonian.

Bay gelding, 16 hands, five years old. Sire Hawthorne, dam by John Nelson, g. dam by St. Clair.

Paladin, sorrel gelding, six years old, 15 hands 3 inches. Sire Hawthorne, dam Whipple's Hambletonian; record 2:30.

Bay mare, four years old, 15 hands 2 inches, black points. Sire Hawthorne, dam by Reuben—in training.

Two-year-old filly, by Hawthorne, dam by Old Lambert.

Two-year-old sorrel filly. Sire Hawthorne, dam by Sultan.

Sorrel gelding, 16 hands. Sire Hawthorne, dam Cole, by Gen. Dana.

Two-year-old filly, by Hawthorne, dam Motion, by Daniel Lambert. Those are a few that we saw there.

Standard Trotters—Mares.

He has in his stud eight highly bred mares by Nutwood; and others—Ida May, dark bay, 4 years old, full sister to Tempest; three by Whipple's Hambletonian; by Sultan from Almont; also Wilkes, Director and Electioneer stock. His stable includes an importation from Vermont, viz.: Seven by Daniel Lambert, one by Ben Franklin, one by Motion, one by Addison Lam-

bert, five from McCracken's Blackhawk, two by Sherman's Blackhawk, and five by Morgan Rattler, these being from the most noted families of Morgan and Blackhawk strains—among them the dam of Mt. Vernon, record 2:21.

He has also in his stud 15 Chieftains and selected brood mares from the following noted stallions: Gen. Knox, Dexter Prince, John Nelson, Elector, Geo. M. Patchen, Long Island, Joe Daniels, Old Belmont, David Hill, Priem, La Roche, McClellan, Henry Clay, Don Victor, and several other noted sires.

Including weanlings, aged horses and brood mares, his stud numbers over 300 head from the noted families above named. There are 25 weanlings by Hawthorne, and 35 by his other stallions—all standard trotters or thoroughbreds.

Draft Horses.

At the French Camp Farm is kept his celebrated Clydesdale stallion, Prince Consort, Jr.; weight, 1850 pounds. His draft horses are kept at several ranches in San Joaquin and Merced counties.

Jacks and Jennies.

He has eight jacks, with Tommy at the head of the herd; four years old, sire Castilian from imported jack and jenny from Kentucky, and 20 jennies, all bred from imported stock. During the year 1888 he sold one of his jacks to Mr. Reavis of Chico for \$3000. Of all classes, standard trotters, thoroughbred draft horses, jacks, jennies and mules, he has over 500 head.

Merino Sheep.

Mr. Shippee has been a prominent breeder of thoroughbred and high-grade merino sheep for 20 years. During that time he has made importations aggregating in value over \$40,000. He has now over 500 head which are recorded in the Vermont register and about 30,000 grades.

Berkshire Swine.

His piggery at the home ranch is well stocked with the purest and most notable strains of Berkshire hogs.

California Racers.

LEXINGTON, KY., Feb. 15.—W. R. Allen of Pittsfield, Mass., has just closed a contract with W. Corbett of San Mateo, Cal., for the purchase of the following trotting stock: Sable Hayward, bay mare by Pascora Hayward; Jet Wilkes, black filly by Guy Wilkes, all out of Sable, dam of Sable Wilkes; bay filly by Guy Wilkes, dam Ruby by Sultan; bay filly by Guy Wilkes, dam Atlanta by The Moor; Lindora Wilkes, brown filly by Guy Wilkes, dam Rosetta by The Moor and Rosetta Wilkes, bay filly by Guy Wilkes, dam Young Signal by Atherton. The price paid for the lot was \$60,000, making it the largest figure ever paid in the world for a similar number of untrained trotting-bred animals.

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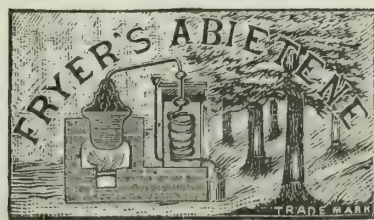
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From Sierra Valley.

EDITORS PRESS:—Up here among the high Sierras we are having the most remarkable winter for many years—perhaps the most remarkable ever experienced.

Last fall, there being a much smaller supply of hay in our valley than usual, owing to the shortness of last summer's crop, and many prophesying a severe winter, large numbers of horses and cattle from this section were driven to Truckee Meadows, Mason valley, Honey Lake and Indian valley. Could farmers have foreseen how mild the winter was to be, much of this stock would have been kept here, as the supply of hay in many cases would have been sufficient, for it is now selling here at a lower figure than last fall; and, notwithstanding there have been over 9000 head of beeves fed in Truckee Meadows, we are told that the price is declining in Reno.

The autumn was particularly fine, giving farmers a good opportunity to dispose of their grain crop, which was large, and though bringing unusually low prices, caused much money to be distributed in our valley.

When the time for our winter's storms had arrived, every one was busy doing the numberless last things before we should be shut in by snow-drifts; but the holidays passed with their usual festivities, and the large wood-piles which the more prudent farmers had provided, as well as many last things well finished, told that they were ready for storms.

Early in January a day's wind brought us some six inches of snow, which soon went off, and now it seems as if the spring were indeed here. The days are almost balmy, the sun shine is warm, the flowers are in bloom, and those of us who are fond of Flora's gifts have bouquets on our table every meal. The meadow larks are singing their spring songs. The honey bees are astir. A few of the ranchers on the side-hills are plowing. The horses which were not to be worked were to have been wintered on straw, but they entirely refuse to eat it, preferring the dry feed on the pasture and meadow lands, with the green grass which is starting up.

Many feel fearful of another short hay crop, but our experience is that a dry winter is usually followed by summer showers, often insuring a good yield of grain. The acreage of grain sowed in our valley increases from year to year, and notwithstanding some partial failures of crops, we feel that the prosperity of this mountain region is rapidly increasing, her resources are more numerous, and the outlook grows better continually.

MARY P. ARMS.
Beckworth, Plumas Co., Cal., Feb. 10, 1889.

Fine Offerings of Live-Stock.

Readers of the RURAL can hardly overlook the attractive announcements of live-stock for sale which are being made from week to week in our columns by Killip & Co., the well-known live-stock agents and auctioneers. This firm is doing much to advance live-stock interests by their enterprising dealings. Upon another page may be found several announcements which are worthy of attention. Five Clydesdale stallions, bred by Jas. Roberts of Alameda county, who has long been prominent in breeding circles, are fully described in the advertisement. A lot of Clydesdale mares to arrive from Australia with one of Roberts' stallions will complete the Clydesdale outfit for those who desire this popular draft-stock, or one can be suited, perhaps, with one of a lot of Australian Clydesdale stallions, also in the hands of Killip & Co. The firm keeps well informed on all kinds of live-stock and the market for them, and are, as we have said, doing much to promote the general trade.

California Horses East.

Last fall Mr. Shippee sold the two-year-old colt Motion (renamed Campbell's Electioneer) to W. E. Campbell of Kiowa, Kansas, for \$7000. Mr. Shippee showed a mile in 2:35½ the day he sold him. During the circuit last fall he won all his races, and lowered the record of the State of Kansas 21 seconds. He has been barred in all three-year-old races in that State for this year. Mr. Campbell says in a letter recently that he has been offered \$17,000 for this magnificent stallion.

A Fine Lot of Horses.

Mr. Jesse Harris of Fort Collins, Colorado, importer of Cleveland Bay, Clydesdale, Shire and English Hackney horses, has just imported a carload of selected stallions, all of which have been acclimated and in prime condition for this season's service. These stallions were selected from the best strains of blood in Europe, and are guaranteed breeders and registered in their respective stud-books. Parties interested will find this importation at the Telegraph Stables, J street, Sacramento.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or of some irresponsible party requesting to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

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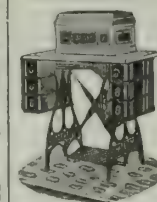
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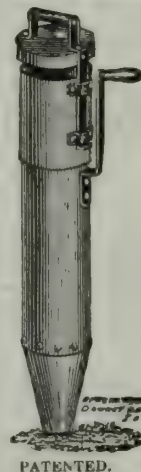
DELINQUENT SALE.

Grangers' Bank of California.—Location of principal place of business, San Francisco, California. NOTICE.—There is delinquent upon the following described stock on account of installment No. 7, levied on the 3rd day of January, 1889, the several amounts set opposite the names of the respective shareholders, as follows:

H. J. Lewelling, Trustee for Lewis L. King, No. Certificate, 3087, for 50 Shares\$500 00
H. J. Lewelling, Trustee for Clinton S. King, No. Certificate, 3088, for 50 Shares 500 00
H. J. Lewelling, Trustee for Elva C. King, No. Certificate, 3089, for 50 Shares 500 00

And in accordance with law and an order of the Board of Directors, made on the 8th day of January, 1889, so many shares of each parcel of such stock as may be necessary will be sold at public auction, at the office of the Bank, Northwest corner California and Battery streets, San Francisco, California, on Thursday, the 7th day of March, 1889, at the hour of one o'clock P. M. of said day, to pay said delinquent installment thereon, together with cost of advertising and expenses of the sale.

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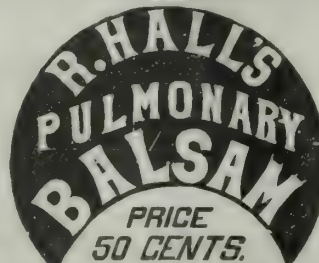
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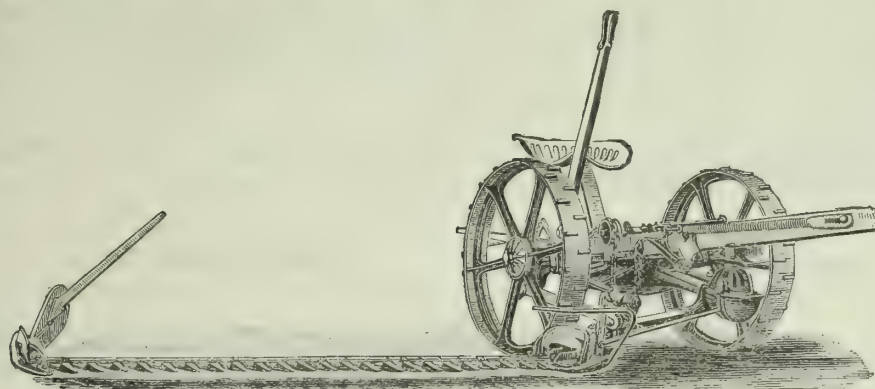
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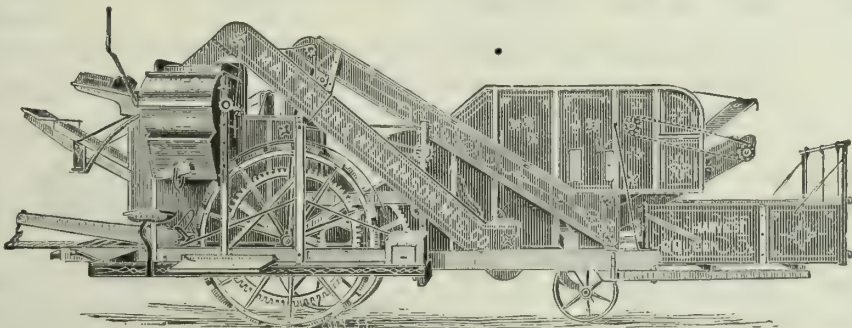
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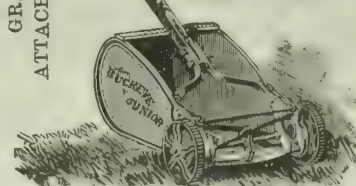
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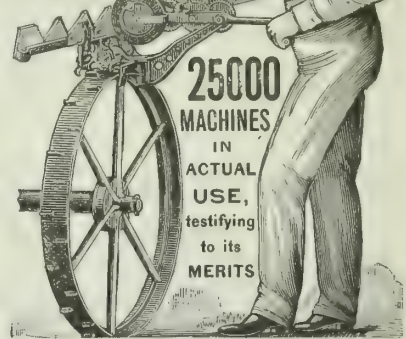
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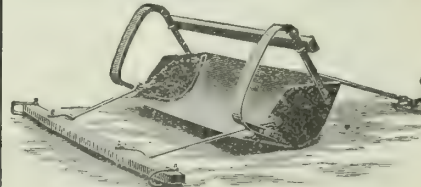


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This implement will take up and carry its load to any desired distance, carrying 15 to 20 cubic feet, according to dirt. It will distribute the dirt evenly, or deposit its load in bulk, as desired. It will do the work of Scraper, Grader and Carrier. Can be used with two or four horses, although best results obtained with four horses. ONE MAN ONLY required to handle this Scraper. Address

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Stationary Engines and Boilers,
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Machinery of all kinds furnished at shortest notice.

Heald's Patent Wine-making Machinery,
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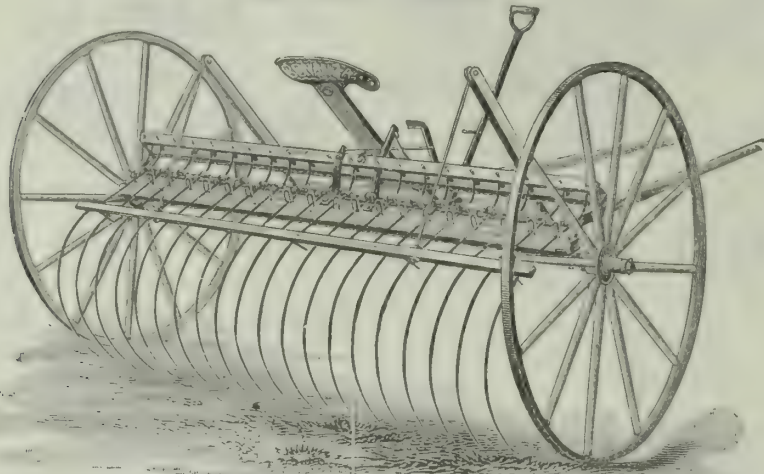
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We offer an easy way to make hundreds of dollars between now and July 1st, 1889. We pay **Good Wages**, as a freepress besides offering **\$500** to the person who shall do the best work for us; **\$400** to the second, and so on down. These prizes are **EXTRA** compensation to the best workers. A good chance to pay off that mortgage, secure a home, or start housekeeping.

CURTIS PUBLISHING CO.
PHILADELPHIA, PA.

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THE "BONANZA" Hollingsworth Sulky Rake, IMPROVED.



For either One or Two Horses.
Twenty Oil-Tempered Steel Teeth.
Works on the Roughest Lands.
No more Broken Teeth.

Overhanging cleaner in place of the old style sticks. Axles made of steel. Wheels are very strong and tire are bolted to rim of wheel. The very best of lumber is used in the manufacture of these rakes. They are painted and varnished in first-class style, and are strictly first-class in every way.
We put on this RAKE OUR PATENTED COMBINED POLE AND SHAFTS, also our PATENT TOOTH HOLDER.
In addition to the 20 and 24-tooth "Bonanza," we sell a 30-tooth or wide Rake for use on large ranches.
We have had built especially for Pacific trade a 24-tooth "Bonanza" Rake, which will rake two swaths cut by a 4-foot 6-inch or 5-foot mower.
This is a very popular size and will pay many times over in a season for its small increased price.

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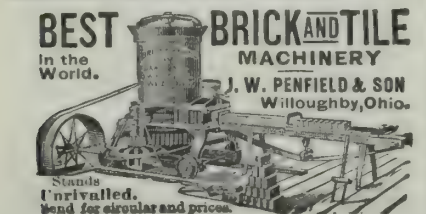
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PIANOS and ORGANS.
UNEQUALED SUCCESS.
THE ROLLER ORGANS.

We have now been selling these instruments for over two years, and can send references from all parts of the Pacific Coast as to their sweetness of tone, durability in wear, etc. Plays Sacred, Popular and Dance Music. Any one can perform without the slightest knowledge of music. Liberal discount to Agents. Goods forwarded C. O. D. or on receipt of P. O. order or registered letter. Circulars free. **HAMMOND'S MUSIC STORE.** 2257 Mission St., near 19th, San Francisco



HORSE POWERS, WINDMILLS, TANKS
and all kinds of Pumping Machinery built to order. Awarded Diploma for Windmills at Mechanics' Fair, 1885. Windmills from \$65. Horse Powers from \$50. **F. W. KROGH & CO., 51 Beale Street, San Francisco**



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J. W. PENFIELD & SON
Willoughby, Ohio.
Stands unrivalled. Send for circular and prices.



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75,000 TONS CAPACITY. 75,000 Storage at Lowest Rates.
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Seeds, Plants, Etc.

ROSE SPRING NURSERIES,
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We will send by mail, to any address in the United States:
10 Everblooming Roses, all different and named, for \$1.00.
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Also a large lot of other Dollar Collections.
Also will send by mail one-year old Vines of the shipping varieties at \$8 per 100. Cuttings of Grapevines of almost any variety delivered by mail at \$2 per 100.
Send for list of kinds to

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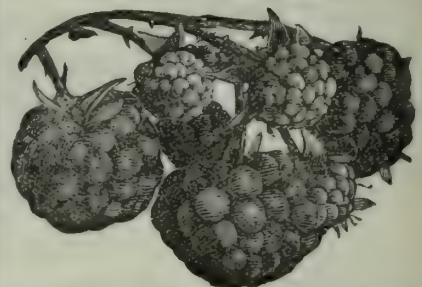
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Oriental and Southern Fruits, many of which are adapted to the extreme South and others farther North. The largest stock of Peach and Plum Trees ever grown in Florida, including many varieties of extremely early ultra Southern Peaches. Two varieties of Oriental Plums. A full line of Olives, Figs, Apricots, Pecans, Japan Persimmons and other fruits. The **Satsuma Orange** is the hardiest known variety and one of the best. Send stamp for Illustrated Catalogue, Price List and Mailing List. Mention this paper. Addr. **G. L. TABER,** Glen St. Mary, Baker Co., Florida.

A FULL LINE OF Budded Orange and Lemon Trees, AND SOUR SEEDLINGS,
2 yrs. old, at the
GEORGETOWN NURSERIES,
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Correspondence solicited. **AARON WARR.**

Fine Small Fruits a Specialty.

CUTHBERT RASPBERRY.



BEST MARKET BERRY KNOWN! Large, Firm and Luscious, stands travel finely, bears immensely, and has two crops a year; 75 cents per dozen; \$3 per 100. Also Strawberries, Blackberries, Gooseberries, Currants, etc., of the finest imported varieties. Prices on application. **L. U. MCANN,** Santa Cruz, Cal.

FANCHER CREEK NURSERY, FRESNO, - - - CALIFORNIA,

OFFERS FOR THE SEASON A FINE STOCK OF

PEACHES, NECTARINES, APRICOTS, FRENCH PRUNES, PEARS, ALMONDS, FIGS, OLIVES, POMEGRANATES, JAPAN PLUMS AND GRAPEVINES.

Headquarters for White Adriatic, White Genoa and San Pedro Figs.

A FINE COLLECTION OF

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A five-pound box of White Adriatic Figs sent by express, prepaid, to any address on receipt of \$1.50. New catalogue mailed free on application. Address all letters to

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Bless Your Souls! My brother farmers, when you receive one containing just as many and very probably more varieties and all new vegetables that are really valuable, for just **NOTHING!** It may have less paint about the covers, but, great Scott! we are not after paint, but seed, fresh and true to name, such as will make with a master's hands own picture all over our farms and gardens; seed I am not afraid to **WARRANT** on the cover of my catalogue. Come, my fellow farmers, and join the thousands, who for thirty years have been users of my seed; why, we were a goodly company and having pleasant times together before the great majority of the present race of seedmen (bless the boys!) had left their nurse's arms! Send for a catalogue, **JAMES J. H. GREGORY, Marblehead, Mass.**

OUR MANUAL OF EVERYTHING GARDEN FOR THE

NEW DOUBLE SUNFLOWER SILVER & Gold.



For 1889 is the handsomest and most complete Garden Guide ever published. It is really a book of 140 pages, size 9 x 11 inches, contains three colored plates, and illustrations of all that is new, useful and rare in **Vegetables, Flowers, Fruits and Plants,** with plain directions "How to grow them," by

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This manual we mail to any address on receipt of 25 cents (in stamps). To all so remitting 25 cents for the manual, we will at the same time send free by mail, in addition, their choice of any one of the following **Splendid Novelties,** most of which are now offered for the first time, and the price of either of which is 25 cts.: One packet of **Autumn King** cabbage, or one pkt. of **Yosemite Mammoth** Wax Beans, or one pkt. **Delmonico** Musk Melon, or one pkt. **Giant Pansy,** or one pkt. **Scarlet Triumph** Aster, or one pkt. **Sunflower "Silver and Gold,"** (see illustration), or one plant of the climber **Blue Dawn** Poiner, or one plant of the **White Moonflower,** or one **Bermuda Easter Lily,** or one plant of either a **Red, Yellow, White or Pink Everblooming Rose**—on the distinct understanding, however, that those ordering will state in what paper they saw this advertisement.

PETER HENDERSON & CO., 35 Cortlandt St., NEW YORK.

PIONEER BOX COMPANY,

Manufacturers of all kinds of
FRUIT and PACKING BOXES,
Grape and Berry Baskets,
Cor. Front and M Sts., **SACRAMENTO.**

Without a Peer!
THE POPULAR

NEW HOME

SEWING MACHINE.
No. 725 Market St., History Building, S. F.

PUBLIC AFFAIRS.

San Francisco Water-Front.

EDITORS PRESS:—Now is the time for the members of the Legislature, representing the agricultural interest, to do something of importance for their constituents.

The present law, as well as the laws of the past 20 years, have allowed the Harbor Commissioners to expend from 12 to 24 per cent of all the money received from the front, simply for salaries and office-expenses. The revenue amounted last year to \$580,152.51 and the expenses of collecting, \$138,993.05; and as the revenue is constantly increasing, it will probably be \$600,000 this year.

These expenses are largely due to the fact that the wharfage or tolls are collected from the truckmen as they deliver their merchandise or receive it upon the wharves. The quantity must be guessed at, and teams unnecessarily detained while the dimes are being counted over, after a survey has been made, and at night the collections are all handed over, if the collector is honest, and if not, then there is no help for it.

It has been recommended for several years by the Harbor Commissioners that these tolls should be collected from the ship or vessel in gross, and added to their freight bills in the same manner as the railroads collect tolls, and thus do away with a large expense, and close the door to any fraud in collecting.

The Commissioners claim they have no power to change the method of collecting without further legislation, and it should be a simple matter to do this, but there has been such a long hold on the public crib by the retainers of politicians at this point that they are as difficult to dislodge as the fruit pests of the State.

The great waste in this respect, together with the excessive cost of handling merchandise and the manufactures and agricultural product of this State, has been a wonderful drawback to the State's prosperity, and if we had the direct competition of the older States to contend with, we could not possibly succeed, under the present system of doing business.

The moving of our merchandise and general products, from ship or rail to store, mill or factory, costs at the lowest 50 cents per ton, and frequently the same article is moved several times before it is consumed or sent away. Much of the grain-milling product is first stored, then to mill and from there to the consumer, costing \$1.50 per ton for cartage, and the same may be said of a very large portion of the business of the city.

The exports and imports by rail and sea cannot be very far from 6,000,000 of tons, and if only a single cartage is charged, the bill would be \$3,000,000, but as there is much that is bulky and unwieldy that is charged extra, and a large portion that is removed several times, the cost of cartage would probably be somewhere from \$5,000,000 to \$10,000,000 annually in this city. The cost here is from five to ten times as much as it is in some Eastern cities. The tax falls upon the country consumers and producers, as cartage always goes with the bill.

In the East the railroad is taken to the mill, factory, warehouse or lumber-yard, and if possible together, to the water's edge. In Indianapolis, cars of an average, perhaps, of 15 tons, to the extent of 5000 daily have been delivered and received by the Belt Line R. R. Co. to and from all parts of the city at a charge of \$1 per car, or \$5000 daily. Here the cost would be about \$50,000 for the same labor.

The only obstacle presented against a belt-line railroad for this city is that in the southern part of the city where the bulkhead has not been built, there is a short distance where the roadway would either have to be piled or a city-front street used in part, and which is on a par with an army of 100,000 men that could not be moved, because of the failure of a few shoes for the men to arrive.

The belt railroad and an economic system of doing the business of this city is of more importance than the bulkhead or any single street. If it is probable that the cartage of this city cost \$6,000,000, which can and ought to be done for \$1,000,000 by the use of railways, it certainly should be done.

But this is only a small matter compared with the loss that is being sustained by the city in not providing facilities for doing business economically. With a belt-line road around the front 20 years ago there would be seen to-day factories, mills and warehouses, in solid blocks, miles in extent, fronting on one of the finest harbors in the world and doing a mammoth business, by reason of their superior facilities and economical productions.

The buildings, where there are any on the front to-day, look like wrecks from prehistoric times. The factories, mills and shops of the city can be found anywhere else than on the front. In early days the front was thought to be the proper place for business, but small politics has driven away much of what was there and turned a frontage more valuable than that of any other city in the Union into almost a public nuisance.

I believe that the expenses of the management of the water-front should be reduced from 24 to 5 per cent, and that a belt-line road should be built and operated by the Harbor Commissioners immediately, so that parties desiring to erect factories, mills or warehouses, or those already constructed, may have switch tracks leading to these premises if they are de-

sired, and that the State land along the front should be used, if necessary, in connection with the same in the interest of commerce, and no land leased until it can be known what may be needed for State purposes.

I am not interested personally in land or otherwise along the water-front or in any business affected otherwise than as a citizen at large, but as an old merchant and business man, as well as farmer, I view the present condition of affairs as very unfavorable to the general prosperity of the State, and it seems very plain to me that the laws in relation to the water-front should be amended at once, so that there will be no excuse hereafter for either delay in pushing the belt-line road or in closing the doors against waste and fraud.

R. G. SNEATH.

A Stanch Old Friend.

J. E. P. of Santa Ana, in a note advising us of a remittance, says: I have been a reader of the RURAL PRESS for many years and have derived much useful knowledge as well as pleasure from its valuable columns. It is a paper that should be in every family on the Pacific Slope. The reading in it is of the best from beginning to end. May it live long and prosper in its good work is my wish.

THE LABOR SUPPLY.—The committee lately appointed to investigate the condition of the labor market in this State reported on Tuesday, at a meeting of the Executive Committee of the State Board of Trade, that while there are enough laborers in the State to meet all requirements, the supply is not well distributed. In many localities where labor at good wages is wanted for short periods, men cannot be found, and at other places where labor is indispensable, on farms and in the fruit orchards, it cannot be obtained. In a few months there will be a large demand for laborers to harvest fruit and grain, and the committee recommended that registers for the free registration of all who may apply for work be distributed throughout the State.

IN KILLIP & Co.'s notice of a coming sale of standard bred trotters, last week, our types accidentally added ten seconds to the record of "Alfred S.," making it 2:31, whereas it should have read but 2:21. The stock, of which there are 14 head all told, belongs to the estate of the late H. W. Seale, and the sale is to take place at the Bay District track on Thursday, 28th instant. Further particulars as to the horses, terms of sale, etc., appear in the advertisement, which we reprint (corrected) in the present issue.

THE EXPERIMENT STATIONS.—In the California State, February 18th, Senator Caminetti's resolution, giving the assent of the State of California to the grants, purposes and conditions of the Act of Congress entitled "An Act to establish agricultural experiment stations in connection with the colleges established in the several States, under the provisions of an Act approved July 2, 1862, and of the Acts supplementary thereto," approved March 2, 1887, was adopted.

PREFERS THE ACME.—A large farmer in Minnesota writes: "I do not know of anything that will do the execution of the 'Acme' pulverizing harrow, clod crusher and leveler and stay with a man so long. The one I have has been in use for nine years constantly, and will last another nine years when I get the coulters sharpened." The secret of its success is that it cuts the entire surface of the ground, and, if properly managed, leaves no uncultivated ridges just below the surface.

A WISE DISTINCTION was made by T. V. Powderly, a few nights ago, in an address on the history of the K. of L. Referring to the introduction of machinery for doing the work of the world, he said it is not labor-saving but wealth-producing machinery, and that the great problem of the future for workingmen is how to adjust themselves to the new order of things so as to reap their full share of the benefits.

POSTOFFICES have been established at Osgood, San Diego Co., at Divide, San Diego Co., at Fleener, Modoc Co., at Lapresa, San Diego Co., at Santa Marguerita, San Luis Obispo Co., and at Swamp, Fresno Co.; and C. A. Rice, Geo. F. McMurray, Mrs. S. A. Fleener, Chas. Schaefer, Reuben M. Bean and Mrs. Clara Bentley have been appointed postmasters or postmistresses of the respective offices.

J. S.

Of Acampo, renewing his RURAL subscription in advance, adds the kind remarks: "We all like your paper. It is all you promise—good, clean, and a credit to any community."

GREAT SALE OF SHORTHORNS.—We desire to direct attention now to the auction sale of 90 Shorthorn cattle, to be held at Sacramento on the 4th of April, an advertisement of which appears in this issue. We may have more to say respecting it later.

PROTECTING YOUNG TREES.—Planters of fruit trees will be interested in the advertisement of "Hay's Tree Envelope" on another page. It offers a cheap and effective method of protecting young trees from sun-burn, borers and rabbits.

Hawthorne and His Famous Family.

(Continued from page 169)

his progeny is mentioned as now in the hands of the trainers. This horse is one of the most famous of the Nutwood stock, as he has three in the 30 list; three below 30, and is the sire of Tempest (2:19) and of at least a half dozen others that will go in this season. He has never made a public standing, having been kept private.

One of the notable Hawthorne family is the mare Tempest, whose portrait is given on page 169. She is a dark bay of fine form and lofty carriage, and gifted with a long stride. Her proportions are good; she stands 15 hands 3 1/4 inches high and is full of grace, as her portrait shows. Tempest is six years old. She is by Hawthorne, dam by Chieftain; second dam by Morgan Rattler; third dam by Jim Crow. As a three-year-old she was entered with aged horses and made a record of 2:29. In 1887 she won the four-year-old stakes at Sacramento in three straight heats and made a record of 2:23. At the Bay District race-track, the same year, she made a record of 2:21 1/2 against aged horses—the best of any four-year-old that year in the United States—beating Rosie Mc and Stanford's stable at Sacramento and winning every race she was entered for in that year for four-year-olds.

In 1888 Tempest was placed in the 2:22 class, and her first race at Oakland she won in three straight heats, making a record of 2:21 1/2. She also won a great race in Stockton last year, against a good field of horses, and five heats in the race, winning the first heat in 2:20 1/2, and the last heat in 2:19, and the race. Tempest has made the remarkably clean record of winning every race she has contended for since she was four years old.

Tempest is a wonderfully perfect animal and is a credit to her royal sire, as well as to her excellent ancestry on the side of her dam.

ENLARGING RIGHTS OF HOMESTEADERS.—Senator Mitchell of Oregon has introduced in the Senate a bill, which was referred to the Committee on Public Lands, enlarging the rights of homesteaders on public lands. The bill provides that when any person entitled under the existing laws to a homestead of 160 acres, and for such purpose locates on 80 acres of surveyed land subject to homestead entry under the existing law, he shall be at liberty and shall have the right to extend the boundaries of his claim over any unsurveyed land adjacent to his entry to the extent of 80 acres additional, and when such lands are included within Government surveys the boundaries of his claim shall be adjusted in accordance with the Government lines.

Cook Stock Farm.

The attention of horsemen is called to the advertisement of Standard trotters and Cleveland bay stallions of the stud of Cook Stock Farm. These animals are from royal strains of blood, and the prices asked for service are unprecedentedly low. The management of this great breeding establishment is in the hands of expert horsemen, and extra care will be taken of all brood mares placed in their hands. Parties wishing to breed to any one of these stallions can leave their brood mares at Oakland, Martinez or Haywards, and they will be taken to the "farm" free of charge.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, term of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

A. F. JEWETT—Tulare Co.
F. B. LOGAN—Southern California.
H. G. PARSONS—Southern California.
Geo. WILSON—Sacramento Co.
W. W. THORALDS—San Diego Co.
J. C. HOAG—San Francisco.
CHAS. F. BLACKBURN—Idaho.
FRANK S. CHAPIN—Colusa Co.

CONSUMPTION CURED.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYES, 149 Powers Block, Rochester, N. Y.

Cheap Money for Farmers!

\$550,000 TO LOAN ON RANCHES ON MORTGAGE; large sums below market rates. S. D. HOVEY, 318 Pine street, San Francisco.

GRAND AUCTION SALE!

NINETY HEAD
FIRST-CLASS

Shorthorn Cattle

AT 1 P. M. AT

AGRICULTURAL PARK,
SACRAMENTO,

Thursday, April 4, 1889.

By direction of MR. JOS. COMBS, of Combs & Wilkerson, Bankers, Linneus, Missouri, we will offer on the above date, ninety head of PURE-BRED DURHAM CATTLE, consisting of forty head of BULLS and fifty head of COWS and HEIFERS of the best-known families. These cattle have been bred and selected by Mr. Combs, and for quality and individual merit have no superior. They were carefully selected from the very best herds in Kentucky and Missouri. Mr. Combs will be prepared to give full guarantee as to soundness and non-existence of disease in section of country from which these cattle are brought; and certified pedigrees will be furnished with each animal, showing its breeding.

Catalogues will be ready shortly. Terms at sale.

KILLIP & CO., Auctioneers,
22 Montgomery St., S. F.

20,000 SOLD THE FIRST YEAR!

LIFTS OUT OF THE GROUND, SAME AS BIG INJUN WALKING PLOW. TO HANDLE THIS PLOW MADE IN EITHER STEEL OR CHILLED IRON.

Handles so easy any small boy who can drive a team can do it. Try it—your class work with it.

3 WHEEL SUICKY PLOW

Also Full Line of STEEL AND CHILLED WALKING PLOWS.

GALE & M'FARLANE & CO.
ALBION, MICH.
BRANCH HOUSES ALL OVER THE COUNTRY. SEND FOR CIRCULARS



THE BUYERS' GUIDE is issued March and Sept., each year. It is an encyclopedia of useful information for all who purchase the luxuries or the necessities of life. We can clothe you and furnish you with all the necessary and unnecessary appliances to ride, walk, dance, sleep, eat, fish, hunt, work, go to church, or stay at home, and in various sizes, styles and quantities. Just figure out what is required to do all these things COMFORTABLY, and you can make a fair estimate of the value of the BUYERS' GUIDE, which will be sent upon receipt of 10 cents to pay postage, MONTGOMERY WARD & CO., 111-114 Michigan Avenue, Chicago, Ill.



200 FRUIT FARMS FOR SALE.

Large and small, from five acres up, IMPROVED and UNIMPROVED, at all the best points and in the best FRUIT-GROWING COLONIES in the State, on EASY TERMS.

Special Agent for the NOVATO and MERCED FRUIT-GROWING COLONIES. Address: D. B. WIER, 40 California St., San Francisco, Cal.

Apiarian Supplies Manufacturing Depot.

STOCK, MACHINERY and BUSINESS FOR SALE. Apply to MRS. J. D. ENAS, Napa City Cal., P. O. Box 306.

APIARIAN SUPPLIES. Italian Queens, \$2.50 each; Black Queens, \$1 each; Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V groove Sections, \$4 per 1000; Comb Honey wholesale and retail; Hives, etc. W. STYAN & SON, The Homestead Apiary, San Mateo, Cal.

The Only RUPTURE REMEDY that will cure Dr. PIERCE'S is Electricity. It is the only genuine Electric Truss in the world. Sealed Pamphlets &c. M. E. T. Co., 704 Sacramento St., San Francisco, Cal.

Postmasters are requested to be sure and notify us when this paper is not taken from their office. If not stopped promptly through oversight or other mishap, do us the favor to write again.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

HORSES AND CATTLE.

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton,) Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Short-horns & Herefords, Wildflower Farm, Fresno or Sac'to.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

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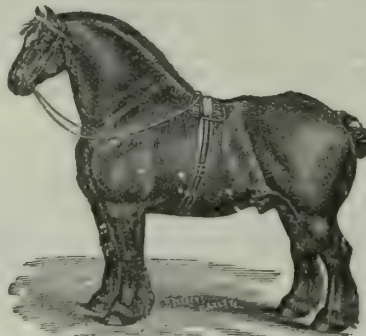
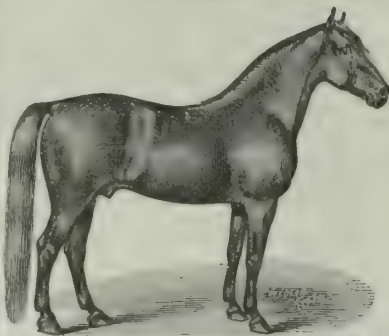
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By order of Executors of Estate of the late H. W. SEALE, we will sell

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STALLIONS, MARES AND GELDINGS,

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MARES.

SUN FLOWER, 2:28, Standard, Sorrel Mare, 7 years, by Elmo, dam Ella Kellogg, by Chieftain.

DUCHESS, Bay Mare, 7 years, by Elmo, dam Norah Marshall (dam of Alfred S, 2:21), by Union.

GELDINGS.

DON QUIXOTE, Brown Gelding, 4 years, by Clay, dam Prentice, dam of Judge Belden, 2:31.

SAMOA, Bay Gelding, 4 years, by Fallis, dam Girofle, by Elmo.

MENTOR, Bay Gelding, 3 years, by Fallis, dam Etheline, by Rwyk's Hambletonian.

FLEET-FOOT, Bay Gelding, 4 years, by Fallis, dam Ida, by Chieftain.

ROBERT ELSMERE, Black Gelding, 3 years, by Clay, dam Alice, by McCracken's Black Hawk.

REX, Bay Gelding, 5 years, by Anteco, dam Accident, by Elmo.

SILVER THREAD, Sorrel Gelding, 5 years, by Elmo, dam Katy, by McCracken's Black Hawk.

ENGADINE, Bay Gelding, 5 years, by Elmo, dam Flora, by The Moor.

ATLAS, Sorrel Gelding, 8 years, by Elmo, dam Accident, by Elmo, 2d dam by Chieftain.

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Foaled May 10, 1883, color bright bay, stands 18 hands 2 inches high; has weighed 2100 pounds.

SIRE.

Sire, imp. Ben Lomond; g g sire, imp. Glengarry; g g sire, imp. Ro. erick Dhu; g g sire, imp. Red McGregor; g g g sire, imp. Tam O'Shanter.

DAM.

Dam sire, imp. Glancer; g sire, imp. Champion; g g sire, President; g g g sire, imp. Provost.

Won at San Jose, 1884, first premium as best yearling. Won, 1885, first premium as best two-year-old at Sacramento State Fair. Won, 1886, first premium as best three-year-old at Livermore Stallion Show, also sweepstakes over all others of any age or breed; 1887, first premium at State Fair, Sacramento, as best four-year-old; also first premium at Los Angeles; 1888, first premium at State Fair, Sacramento, as best five-year-old.

Pure Bred Clydesdale Stallion PRINCE,

Foaled May 18, 1886; color, dark bay, and an excellent mover; very docile in temper. Free from all natural infirmities.

Full brother to Duke, so pedigree is the same. Won, 1886, first premium at State Fair, Sacramento, as best sucking colt. Won, 1887, first premium at State Fair, Sacramento, as best yearling. Won, 1887, first premium at Stockton and first premium at Los Angeles. Won, 1888, first premium at State Fair, Sacramento.

These animals are the property of James Roberts, Irvington, Alameda Co., and are among the highest type of the Clyde horses. They may be seen at Irvington up to February 1st, after that date at Bay District Track, San Francisco.

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SEASON OF 1889. COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19; and 25 others with records better than 2:30, and the dam of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp. Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son Mambriño Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Rysdyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Tamboul, 2:44; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambriño Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, 6th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mainstet, 2:16 and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:28), and of Lady Hoag, trial, 2:18. Said to be by Mambriño Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

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No. 584 E. C. B. Stud Book.
Vol. 1, American C. B. S. B.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189),

First dam by Sportsman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" case, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire beating 20 others.

First dam Whalebone (355), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Lummercock (302).

Royal Studley is a very handsome, bright bay, 16 $\frac{1}{2}$ hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 243; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teesdale, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

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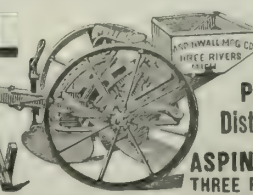
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Importer and breeder of Thoroughbred Poultry, 5 miles southeast of Sacramento, near Lake House, on the upper Stockton road. P. O. address, Box 376, Sacramento, Cal.

S. F. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 20, 1889.

The cooler weather of the past week is said to have improved the prospects of the grain crop. This has been reflected in the market by buyers bidding down for options. In trading in nearly all articles of farm products there was more life the past week, yet the volume of business is still light. The European and Eastern wheat markets have fluctuated some, with a downward tendency abroad, and an upward tendency in Chicago. The latter, it is said, is based on a corner in March, April and May options. The following is to-day's cable:

LIVERPOOL, Feb. 20.—Wheat—Quiet but steady. California spot lots, 75 to 7d to 7s 10d; off coast, 38s 3d; just shipped, 38s 3d; nearly due, 38s 6d; cargoes off coast, firmer; on passage, firm, but not active; French country markets, firm; wheat in Paris, quiet; flour, steady; weather in England, some rain.

Foreign Grain Trade.

LONDON, Feb. 18.—The *Mark Lane Express*, in its weekly review, says: British wheat, since the beginning of the month, has slightly improved, and is still very low. Millers have difficulty in procuring really sound English wheat of fair weight under 34s. American flour was held at a slight advance in values. Foreign wheat is subject to two different tendencies. The growing continental demand for California wheat removes, to a great extent, the depression induced by excess over the average on passage. If the continent takes the surplus it will strengthen the English markets, which are aided by a certainty that Australia will abstain from wheat shipments. In red wheat, depressing influences prevail. Russia, last week, increased her shipments from 63,780 qrs. to 323,684 qrs., and India was being proffered at a low price. Barley was weaker, except the finer sorts. Oats, beans and peas are reasonably firm. Corn is unsettled; new American averaged 21s; round, 23s.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt:

	Feb.	Mar.	Apr.	May.	June.	July.
Thursday	78 3/4	79 3/4	79 3/4	79 3/4	78 3/4	78 3/4
Friday	78 3/4	79 3/4	79 3/4	79 3/4	78 3/4	78 3/4
Saturday	78 3/4	79 3/4	79 3/4	79 3/4	78 3/4	78 3/4
Monday	78 3/4	79 3/4	79 3/4	79 3/4	78 3/4	78 3/4
Tuesday	78 3/4	79 3/4	79 3/4	79 3/4	78 3/4	78 3/4

The following are the prices for California cargoes for off coast, nearly due and prompt shipments:

	O. C.	P. S.	N. D.	Market.
Thursday	38-9d	38-9d	38-9d	Steady.
Friday	38-9d	38-9d	38-9d	Quiet.
Saturday	38-9d	38-9d	38-9d	Firmer.
Monday	38-9d	38-9d	38-9d	Firm.
Tuesday	38-9d	38-9d	38-9d	Steady.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York:

Day.	Feb.	Mar.	Apr.	May.
Thursday	96	97	99 1/2	99 1/2
Friday	97	97	99 1/2	99 1/2
Saturday	99	100	101 1/2	102 1/2
Monday	97 1/2	98 1/2	99 1/2	100 1/2
Tuesday	97 1/2	98 1/2	100 1/2	101 1/2

The closing prices for wheat have been as follows, at Chicago:

Day.	Feb.	Mar.	May.	July.
Thursday	103 1/2	103 1/2	106 1/2	93 1/2
Friday	104 1/2	104 1/2	107 1/2	94 1/2
Saturday	107	107	111	95 1/2
Monday	106 1/2	107 1/2	109 1/2	94 1/2
Tuesday	108 1/2	109 1/2	112 1/2	94 1/2

NEW YORK, Feb. 20.—Wheat—\$1.01 3/4 for May, \$1.01 1/2 for June and 97 1/2 for July.

CHICAGO, Feb. 20.—Wheat—\$1.07 1/2 for cash, \$1.08 for February, \$1.08 1/2 for March, \$1.10 1/2 for May and 95 1/2 for July.

Eastern Wool Markets.

NEW YORK, Feb. 18.—Wool is quiet. A little more time, perhaps, is to be allowed some steady buyers, but all straight-grade parcels are rated as before at all the large markets. The near approach of the foreign clothing stock creates no depression. Sales: 4000 lbs. scoured California; 36,000 lbs. Mexican; 20,000 lbs. Montevideo, pulled; 5000 lbs. XX; 10,000 lbs. scoured, pulled; 5000 lbs. short extra pulled; 5000 lbs. gray East India; 12,100 lbs. Noles; 50,000 lbs. domestic and 227 bales foreign on private terms. At Boston the market is dull, but full confidence is expressed for the future. Sales: 45,000 lbs. California spring, and nearly 2,000,000 lbs., mainly domestic, at full current rates. Philadelphia seems to have the weakest spot of trade. The stocks are light and broken, but no market deviation is mentioned in prices for fair trade in territorial fleeces.

Miscellaneous.

NEW YORK, Feb. 18.—Dry hides are more animated, and 1/2 cent better on the best grades, making California 16c. Favorable future sales exceeded the receipts.

Dried and canned fruit is without incident.

Lima beans are readily placed at \$2.90.

The hop market is in good hardening form. High interior rates have turned a considerable demand to this point. The Pacific Coast obtains a good share of business. State choice, 22@23c; common to prime, 15@21c; Pacific 14@21c; all old, 5@11c. Brewers pay 18@20c.

Local Markets.

BAGS—The market for Calcuttas has a firmer tone, due to an improvement in the crop prospects, and also a report that the jute crop prospects in India are not flattering, while in Russia the advance in the rouble has a direct bearing in favor of the bull interests. In our market, spot are quoted at 7 1/2 @ 7 3/4, and June delivery at 7 1/2 @ 7 3/4.

BARLEY—Cooler weather and a report that the outlook is now favorable for a good crop, have a depressing effect on the market; yet the very low prices tend to keep holders not pressed for money from pressing the market. In futures, trading on Call has been light, with prices showing a decline. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—100 tons, 94c. Buyer season—600 tons, 85 1/2 c @ cwt. Afternoon

Session: Buyer 1889—500 tons, 94c. Buyer season—100 tons, 85 1/2 c @ cwt. 100, 85 1/2 c @ cwt.

BUTTER—The market is in a demoralized condition. Distant points that have heretofore drawn their spring supplies from us are taking sparingly, owing to the active competition of handlers of Eastern creamery butter. The immediate future of the market it is quite difficult to forecast at present. Dealers, at this writing, do not look for much of an improvement in the near future.

CHEESE—The market is still crawling, under liberal receipts and dealers buying sparingly.

EGGS—The market has a stronger tone, under lessened receipts and a good demand.

FLOUR—The market is quiet, but steady.

WHEAT—The market continues under the bear influence. Whenever there are signs of a recovery, the bears jump in and hammer prices down on Call, which necessarily has an unfavorable effect on the sample market. The market is also unfavorably influenced by better crop advices. Trading on Call, the past week, was quite active, with lively fluctuations. The following are to-day's Call Board sales:

Morning Session: Spot, season's storage paid—100 tons, \$1.42; 100, \$1.43. Buyer 1889—100 tons, \$1.49; 900, \$1.48 1/2; 300, \$1.48 1/2; 200, \$1.48 1/2; 500, \$1.48 1/2; 100, \$1.48; 500, \$1.48 1/2; 100, \$1.48 1/2. Buyer season—400 tons, \$1.45 1/2; 500, \$1.45 1/2; 600, \$1.45 1/2 @ cwt. Afternoon Session: Buyer 1889—100 tons, \$1.48 1/2; 400, \$1.48; 300, \$1.48 1/2; 400, \$1.48 1/2. Buyer season—100 tons, \$1.45 1/2; 200, \$1.45 1/2 @ cwt.

The following tables give the highest and lowest prices paid on Call during the past week:

	S. S.	B. S.	B. '89.	S. '89.	B. '89.
Thursday	146 1/2	146 1/2	149 1/2	149 1/2	149 1/2
Friday	146 1/2	146 1/2	149 1/2	149 1/2	149 1/2
Saturday	146 1/2	146 1/2	149 1/2	149 1/2	149 1/2
Monday	146 1/2	146 1/2	149 1/2	149 1/2	149 1/2
Tuesday	146 1/2	146 1/2	149 1/2	149 1/2	149 1/2

—*New. 101d.

Market Information.

Cereals.

H. Kains Jackson writes to the *London Farmer*, Feb. 2, as follows: Weather has been better and the markets worse. Farmers' samples have been wanting in condition, and on that account many lots of wheat in the past week could only be sold at 1s per qr. reduction. In foreign lots there has also been some decline in price, although not from the same cause. However, the best home and foreign samples have maintained previous value. Some large holders keep confidence and withdraw offers from an unwilling market. Reports from the country, of growing crops, are but little heeded at this season. Such observation as I have made makes the impression that wheat and winter barley are in good plant, and thriving in growth, while the meadows keep of a healthy green. Accounts from France also infer that the growing crops have had a good start. The English farmers' old liking for wheat survives the abatement of price, and the crop remains a favorite for its straw, its convenience in rotation, and its surety of not being a complete failure. Thus, with the slightest encouragement from the markets, the wheat area would quickly return to its old importance. Probably the breadth planted this season will equal that of 1888.

The *Mark Lane Express*, Feb. 2d, reports as follows: The deliveries of English barley at the country markets have been heavy, and since the new year an exceptionally large quantity has been thrashed. The result of such thrashings is said to be very disappointing—quantity, as well as quality, proving in many cases much below the mean. Last week Indian wheat shipments amounted to 58,000 qrs. against 6000 qrs. in the corresponding week of 1888. The wheat acreage shows a slight diminution, a trivial increase in the northwestern provinces being rather more than counterbalanced by a diminished cultivation in the central provinces, Berar and Bombay. The most important of Indian wheat-growing districts, the Punjab, shows no change.

In the local markets wheat, the past week, was fairly active considering that it is the turn of the year and also that spot tonnage is not in liberal supply, although to arrive there is an over-supply due within the next 60 days. The foreign markets advanced and then shaded off. The weakening was caused by heavy shipments from Russia and also by the fact that European consumers keep well to the windward, and will not anticipate their wants to any great extent unless the outlook for this year's crops shall prove more unfavorable than is now reported. The advance in the price of Russian roubles, no doubt, has a decided bearing in promoting a large export movement from that country. While the advance rate helps the Russian farmer, it cuts into the exporter's profits.

Advices from the interior are, so far as the absence of rain is concerned, very conflicting and decidedly puzzling. There can be no doubt but on the light sandy soil rains are wanted, but on the heavy land the crop is not suffering yet, although a well-distributed rain would be of benefit, while its absence for a fortnight will not create any serious apprehension. In this State, owing to its varied climate and soil, there is never a total loss of any crop, for while one section will have almost a failure another will have a large yield.

Barley has held to steady prices throughout the week, notwithstanding the bears have exerted all their influence to send values to a lower level. The mainstay of the bulls is, as yet, the dry weather and also that prices are very low. The consumption of feed, which fell off, is again increasing. Brewing grades are firmly held, but there is no essential change in quotations. The stock of bright, heavy brewing is not large and any increase in the demand would be responded to by a higher range of values.

In oats the market has exhibited a steadier tone.

Buyers still operate cautiously owing to the seemingly well-established policy of Oregon dealers to flood this market as soon as prices show an upward tendency. The consumption has been largely stimulated by the low range of values the past three months.

A setting back in the price of corn caused the receipts to shade off, which has naturally been followed by a steadier feeling in the market.

In both rye and buckwheat there is nothing new to report.

Fruit.

Choice oranges continue to come forward sparingly, yet the market does not appreciate. This, doubtless, is owing to the heavy receipts of poor to good, which are forced on the market at the best obtainable prices. This necessarily causes buyers to hesitate in bidding up for the better qualities, even when in want of them. Free shipments of good to choice in good keeping condition are being made up north. The consumptive demand is increasing, notwithstanding the cool weather.

The *New York Journal of Commerce* reports the receipt at that port of Florida oranges by the car in bulk. To keep the different qualities separate, partitions were run in the cars, and to keep them from mashing or injuring, layers of boards or coverings were laid over them at the height of from 12 to 18 inches. It is claimed that by sending them in bulk there is a saving in boxing and wrapping each orange in a paper, besides, the car carries more fruit loose than when boxed.

Apples are in lighter supply, which is offset by a poor inquiry.

For limes and lemons the market is without change. The cool weather restricts the demand.

In dried fruits, there is a better feeling, with the prices suffer, due to the market being well cleaned up. The buying was chiefly for shipment to the Central States, although Oregon, Washington, Montana and Idaho drew considerable. Sales of peaches were made at from 1/2 to 3/4 c per lb over the prices paid the previous week.

Feedstuff.

In ground feed the market has ruled steady and fairly firm throughout the week under a slow but steadily increasing consumption.

In hay the receipts have been in excess of the demand. Much of that received came by rail and having to be removed at once was forced on the market, necessarily causing a weakening in prices. The buying interest was also aided by unsettled weather, but with more clouds than rain.

Live-Stock.

Bullocks continue in heavy offerings, with Nevada selling. At the present low prices, fed bullocks are netting a loss. In the southern part of this State and some of the coast and central counties feed is excellent and cattle are taking on flesh. These will soon be on the market. Choice mutton sheep are still scarce, but it is claimed that heavy offerings will soon be in order, when a lower range of values is looked for. For milch cows there is a fair demand at previous quotations. For small calves there is a good demand. Spring lambs are weaker, under stronger selling. In horses, there is nothing new to report outside of a good inquiry for single-footers and matched teams.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, grain fed, 6 1/2 @ 6 3/4 c @ lb; dressed, 9 1/2 @ 10 c @ lb; soft, 5 1/2 @ 6 1/2 c @ lb; dressed, 8 1/2 @ 9 1/2 c @ lb. Stock hogs, 4 @ 5 c @ lb.

BEEF—Stall fed, 7 @ 8 c @ lb; grass fed, extra 6 1/2 @ 6 3/4 c @ lb; first quality, 6 @ 6 1/2 c @ lb; second quality 4 1/2 @ 5 1/2 c @ lb; third quality, 3 1/2 @ 4 1/2 c @ lb.

VEAL—Small, 8 @ 9 c @ lb; large, 7 @ 8 c @ lb.

MUTTON—Wethers, 6 1/2 @ 7 c @ lb; ewes, 6 1/2 c @ lb; lamb, spring, 12 1/2 @ 15 c @ lb.

Vegetables.

Asparagus comes in sparingly, causing fancy prices to obtain. Green peas are easy. String beans are in light receipt. The receipt of tomatoes is irregular, causing prices to fluctuate.

Cold, frosty nights the past week have been against outdoor gardening in the bay counties, setting back all kinds of vegetable plants.

Choice, well-selected onions have moved off more freely. The demand was chiefly to fill distant orders, although the local trade took fair quantities.

New potatoes are, as yet, in light receipt. The quality shows a slight improvement, but prices do not. Choice old, in good condition, move off fairly well. Poor are hard to place, even at concessions.

Miscellaneous.

From the *Commercial News* of Feb. 20th, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port	216,911	208,120
On the way to neighboring ports	38,647	79,690
In port, disengaged	31,574	44,495
In port, engaged for wheat	25,385	46,728

Totals.....312,457 379,033

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to Feb. 6th, the following are the exports from this port:

	1889.	1888.
Wheat, cts.	928,340	5,926,949
Flour, bbls.	458,442	475,084
Barley, cts.	1,182,222	428,638

In poultry there is a stronger feeling for ducks, young roosters, broilers, and turkeys. Choice game outside of hares is doing slightly better.

East-bound overland shipments of produce from California in January were as follows: 20,739 cents barley, 13,237 cents beans, 911,210 pounds canned goods, 13,666 gallons brandy, 280,495 gallons wine, 350,110 pounds dried fruit, 802,100 pounds citrus fruit, 166,490 pounds hides, 100,760 pounds honey, 115,530 pounds hops, 169,400 pounds raisins, 949,890 pounds wool, and 342,190 pounds Australian wool.

The new clip of wool will, it is said, begin to come in toward the forepart of March; in the meantime the local market is inactive. It is generally claimed that this year's clip will be of good quality, that is, will average cleaner and lighter than did that of 1888.

Choice hops are more inquired for, but the light

available supply on this coast causes holders to entertain stronger views, particularly with the Eastern and European markets showing signs of advancing.

Beans continue heavy. It looks as if the more choice are being concentrated. While this is the case those buying do not appear disposed to pay above certain figures.

Nuts continue heavy and in buyer's favor.

Choice extracted honey is in light supply. Comb is reported to be in large stock. The outlook for this year's crop is said to be better than at the same time in 1888.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, Feb. 21, 1889.

BEANS AND PEAS.		Soft shell.	
Bayo, cts.	2 00 @ 2 50	Paper shell.	12 @ 13
Butter.	2 50 @ 3 00	Brazil.	8 @ 10
Pea	1 75 @ 1 85	Pecans.	10 @ 17
Red.	2 00 @ 2 30	Peasants.	6 @ 6 1/2
Pink.	2 00 @ 2 15	Filberts.	10 @ 11
Large White	1 5 @ 1 85	Hickory.	5 @ 8

Limes.		Early Rose.	
Small White	3 25 @ 3 50	Early Rose.	30 @ 45
Field Peas, hkye	2 00 @ 2 10	Cherries.	40 @ 50
do green	2 00 @ 2 10	Peerless.	40 @ 55
do Niles	2 00 @	Jerry Blues.	40 @ 55
BROOM COGN.		Burbanks.	25 @ 40
South'n 1/2 ton.	40 00 @ 60 00	Cuffey Cove.	50 @ 70
Northern.	40 00 @ 60 00	Sweet.	10 @ 1 00

CHICORY.		TOMATOES.	
California.	5 @ 6	Tomatoes.	60 @ 75
German.	6 1/2 @ 7	New, sacks.	1 @ 1 1/2

DAIRY PRODUCE, ETC.		EGGS.	
BUTTER.		POULTRY AND GAME.	
Cal. Com. to fair, lb 12½ @	15	Hens, doz.	6 00 @ 8 00
do good to choice 17½ @	19	Roosters.	5 50 @ 9 00
do Fancy birds 20 @	21	Broilers.	4 50 @ 7 50
do pickled. 15 @	18	Ducks, tame.	8 00 @ 11 00
Eastern in tubs. — @	—	Geese, pair.	1 50 @ 2 25
do in rolls. — @	—	do freshling.	13 @ 15

California, new.		Turkeys, Hens.	
do old.	9 @ 11	do dressed.	15 @ 17
		do dressed.	15 @ 18

EGGS.		Rabbits, doz.	
Cal. ranch, doz.	18 @ 19	Hare.	1 00 @ 1 25
do store.	15 @ 17	Quails.	1 00 @ 1 50
Eastern, lined.	10 @ 14	Mallards.	3 00 @ 5 00
Eastern, fresh.	15 @ 16	Spring.	1 50 @ 2 25

FEED.		Small ducks.	
Brn. ton.	13 50 @ 15 50	Small ducks.	75 @ 1 50
Feedmeal.	24 00 @ 26 00	Canvas back.	3 00 @ 4 00
Gr'd Barley.	19 00 @ 20 00	Gray geese.	3 00 @ 3 50
Middling.	16 00 @ 17 50	Brant.	2 00 @ 2 50
Oil Cake Meal.	30 00 @		

HAY.		Cal. Bacon.	
Wheat, per ton.	9 00 @ 13 50	Heavy, lb.	11 @ 12
Wheat and Oats	8 00 @ 12 50	Medium.	12 @ 14
Wild Oats.	10 00 @ 11 50	Light.	12 @ 13
Clover.	10 00 @ 12 00	Extra Light.	12 @ 14
Tame Oats	10 00 @ 17 00	Lard.	10 @ 11 1/2

Barley and Oats.		Cal. Sm'd Beef	
Alfalfa.	8 00 @ 9 50	Hams, Cal.	12 @ 14
Straw bale.	70 @ 80	do Eastern.	13 @ 14 1/2

FLOUR.		SEEDS.	
Extra, City Mills	4 50 @ 4 75	Alfalfa.	11 @ 11 1/2
do City Mills	4 50 @ 4 70	Corn.	3 1/2 @ 4
Superfine.	3 50 @ 4 00	Clover, Red.	12 @ 13

GRAIN, ETC.		White.	
Barley, feed, cts.	75 @ 85	Cotton.	20 @ 22
do breeding.	92 @ 95	Flaxseed.	2 1/2 @ 3
do Choice.	1 00 @ 1 10	Hemp.	3 @ 4 1/2

Chevalier cures.		Italian Eggplant.	
do to good	1 10 @ 1 20	Perennial.	7 @ 9
Buckwheat.	2 75 @ 3 25	Millet, German.	5 @ 6 1/2
Corn, White.	1 05 @ 1 10	do Common.	5 @ 6

Yellow.		Mustard, yellow	
Oats, milling.	1 12 1/2 @ 1 17 1/2	do Brown.	14 @ 24
Choice feed.	1 10 @	do Brown.	14 @ 24
do good.	1 17 1/2 @	do Brown.	14 @ 24

do fair. <th colspan="2">do Brown.</th>		do Brown.	
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**PARAFFINE PAINT CO.,**

310 California St., San Francisco.

The Lakeland Nursery Company,

LAKELAND, POLK COUNTY, FLORIDA.

Offer their immense stock of Citrus Fruit Trees, all choice and healthy, at a bargain. Varieties strictly genuine and consist of the following popular kinds: Homocassa, Magnum Bonum, Nonpareil, Majorca, Jaffa, Mediterranean Sweet, Hart's Tardiff, Maltese Blood, Washington Navel, Du Roi, Sweet Seville, Centennial, Madam Vinous, Maltese Oval, St. Michael, Tony, Mandarin and Tangierine. Lemon, Sicily, Belair Premium and Villa Franca. Lime, Tahiti and Florida. Citron, Lyman. Sweet and Sour Orange, and Grape Fruit Seedlings.

Special prices quoted on large orders. Send for descriptive catalogue and price list to
E. H. TISON, Business Manager.

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PEARS, Bartlett and Winter Nelis.

PLUMS, Bradshaw, Columbia, Green Gage, Peach Plum, Washington and Yellow Egg.

Also a large stock of Gums, Cypress and Laurustinus in Boxes, and complete assortment of general

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Twenty Eighth Street, near San Pablo Ave., OAKLAND, CAL.

FRUIT TREES! Established 1863. **FRUIT TREES!****THOS. MEHERIN,**

Agency of CALIFORNIA NURSERY CO., Niles, Alameda Co., Cal.

We have now for sale at Lowest Market Rates the Largest, Best Selected and Healthiest Stock of

Fruit Trees, Grapevines, Olives, Small Fruits, Etc., Etc.

Ever offered on the Pacific Coast, including all the new varieties, all grown on new land at the above Nursery and free from scale and other pests. Samples of the trees always on hand.

Seeds! Seeds! Seeds!

WE HAVE ALSO CONSTANTLY ON HAND A LARGE AND FRESH STOCK OF

Grass, Clover, Vegetable, Flower and Tree Seeds,

And Ornamental Trees and Plants, Bulbs, Roses, Magnolias, Palms, etc.,

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Capital Nurseries, Sacramento, Cal.

1,000,000 of the finest Trees ever offered on this Coast, in lots to suit, at lowest market rates. A complete assortment of Prunes, Plums, Apricots, Almond, Peach, Nectarine, Apple, Pear, Cherry, Orange, Lemon, Olive, Grapevines, Berry Plants, Shade and Ornamental Trees, Shrubbery, Flowering Plants, etc.; in fact, everything to be found in a first-class Nursery. We would call special attention to our immense stock of Orange and Lemon Trees. Extra fine stock of all the best-known varieties, positively free from Insect Pests. These fine Trees will be sold, either wholesale or retail, cheaper than ever before offered on this Coast. We can also supply any desired quantity of Magnolia Grandiflora Trees very cheap.

We are better prepared this season to supply all kinds of Nursery Stock than ever before. See our Stock and compare it with others before placing your orders, or correspond with us. SPECIAL TERMS GIVEN ON LARGE ORDERS, especially on Orange, Lemon and Magnolia Trees. We would also call special attention to our unusually large and complete assortment of all kinds of

FIELD, VEGETABLE, GARDEN, FLOWER, TREE and GRASS SEEDS.

Every kind and class of the best and freshest Seeds, both wholesale and retail, very low; also a complete stock of Flowering Bulbs. Send for our New Illustrated Seed and Tree Catalogue. It is the finest and most complete book of the kind we have ever issued. Sent free on application. Address all communications to

W. R. STRONG & CO., Sacramento, Cal.**TREES AND PLANTS.****CALIFORNIA NURSERY CO.**

NILES, ALAMEDA COUNTY, CAL.

LARGEST STOCK ON THE PACIFIC COAST.

Fruit Trees, Olives, Oranges and Lemons, Nut Trees, Wine and Table Grapes, Berry Plants, Shade Trees, Evergreens, Shrubs, Roses, Etc., Etc.

FOR COMPLETE LIST, SEND FOR OUR NEW CATALOGUE.

JOHN ROCK, Manager.

CALIFORNIA NURSERY CO.

Niles, Alameda Co., Cal.

Seeds, Plants, Etc.

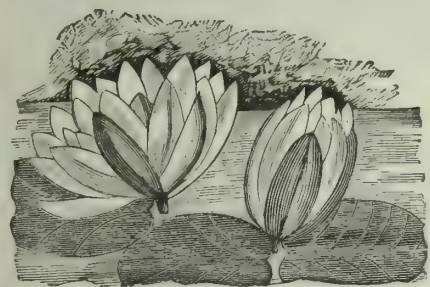
SANTA ROSA NURSERIES,
R. W. BELL,Successor to L. BURBANK,
LARGE STOCK of everything in the Nur-
sery Line.**BARTLETT PEARS CHEAP.**

New Zealand APHIS PROOF APPLES.

NEWCASTLE EARLY,

Best and Largest Extra Early APRICOT.

Picholine and Nevadillo Olives.

ASPARAGUS in Surplus.**Roses, Shrubs, Vines, Bulbs and
Flowers.**All our Trees Warranted Free from Scale,
and raised without irrigation.**WATER LILY ROOTS.**A limited number of strong roots of our native
(Eastern) fragrant Water Lily (*Nymphaea odorata*)
for sale at \$4 per dozen or 50 cents each; sent C. O. D.
by express.

R. JORDAN,

P. O. Box 120, Napa City, Cal.

PACIFIC NURSERY,San Francisco, - - California,
Offers for sale this season the largest and
best collection of**Azaleas, Camellias, Rhododendrons,
Roses, Clematis, Araucarias, Palms.**Also Monterey Cypress, transplanted in boxes and open
ground; Monterey Pine, transplanted; Pepper Trees,
Juniperus Pittosporums, Veronicas, Fuchsias in great va-
riety, and a fine collection of hardy Ornamental Ever-
green and Deciduous Trees and Shrubs. Eighty thou-
sand rooted Resistant Riparia Grapes. Olives. Picho-
line and other varieties. Guava, two sorts. Blackber-
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Trees in varieties. Address,

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OVER 6,000,000 people believe that it
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of the largest and most reliable house, and they use**Ferry's Seeds**D. M. FERRY & CO. are
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Illustrated, Descriptive
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SEED ANNUALFor 1889
Will be mailed FREE
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Garden, Field or Flower Seeds
should send for it. Address
D. M. FERRY & CO., Detroit, Mich.**GENUINE WHITE ADRIATIC FIG**
Trees and Cuttings.CABERNET SAUVIGNON,
CABERNET FRANC,
MATARO AND CARIGNANE,
HITARIA, GRAPE ROOTS & CUTTINGS,
\$5 per thousand.White Adriatic Figs grown and packed by me for sale
by Tillmann & Bendel, S. F.

M. DENICKE, - - FRESNO, CAL.

VITIS CALIFORNICA SEEDS.Five pounds and over, \$1 per pound; less than five
pounds, \$1.50 per pound.Vitis Californica Seedlings, Phylloxera Proof.
\$10 per 1000.C. MOTTIER,
Middletown, Lake Co., Cal.

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SEEDS 51st
YEARFRESH AND RELIABLE. BUY NO OTHERS
Seed Store at your door. Send for our illustrated cat-
alogue of everything for the Farm and Garden.J. M. McCULLOUGH'S SONS,
CINCINNATI, OHIO.**FRUIT TREES!****FRUIT TREES!**

THE MOST COMPLETE STOCK IN THE STATE,

Comprising all the Leading and Desirable Varieties

—ALSO—

Olives, Oranges, Persian Walnuts, Deciduous and
Evergreen Ornamental Trees,**ROSES, LOQUATS, ETC., ETC.**

NURSERY and PACKING GROUNDS, NILES, CAL.

Seed and Tree Catalogues on application.

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ADRIATIC and SAN PEDRO FIGS.

French Walnuts, Home-grown Oranges and Rooted Grapevines.

Illustrated Catalogue and Price List for the season of 1887-88 free to all sending for them. All Trees, Vines,
etc., guaranteed free from scale and other injurious pests. A certificate of inspection furnished to all.
A full line of Fruit and Ornamental Trees, Shrubs, Vines and Hothouse Plants.

E. C. CLOWES, Proprietor

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INCORPORATED 1884.

460 ACRES.

160 ACRES NURSERY!

1,500,000 TREES AND VINES!

W. M. WILLIAMS & CO.'S

SEMI-TROPICAL AND GENERAL

NURSERIES

Fresno, Cal.

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We would respectfully call the attention of the public to our very complete list of Nursery
Stock for the ensuing season, consisting of a full line of all the Standard Varieties of**APPLE, PEAR, PLUM, CHERRY, PEACH, APRICOT, NECTARINE, Etc., Etc.,**

BESIDES A LARGE STOCK OF THE GENUINE

WHITE ADRIATIC FIG,Guaranteed, and the NEW LYONS CLING PEACH. We have an immense stock of ROOTED
VINES, comprising 86 varieties. We carry also a full line of CITRUS FRUITS, well grown
and warranted free from all pests and true to label.

Send for Catalogue and address all correspondence to FRESNO, CAL., Box 175.

RIVERSIDE NURSERIES,

RIVERSIDE, CAL.,

FROST & BURGESS, - - - - - Proprietors,

—GROWERS AND DEALERS IN—

ORANGE AND LEMON TREES,

Choice Budded Varieties, including the

GENUINE RIVERSIDE WASHINGTON NAVEL,

A SPECIALTY.

We grow our own Trees and have the largest stock of budded Orange Trees in Riverside.
If you want reliable, strictly first-class Trees, true to name, that ALWAYS GIVE THE BEST SATIS-
FACTION, we should be pleased to hear from you.

Descriptive Catalogue and Price List free.

THE FRESNO NURSERY CO.

—FOR—

GENUINE**Washington Navel Orange Trees**

FLORIDA SOUR STOCKS, RIVERSIDE BUDS,

The Cheapest and Best in the Market.

Raisin Grapevines and Cuttings.

APRICOT, PEACH and PRUNE TREES.

Texas Umbrella Trees.

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NAPA VALLEY NURSERIES.Early Crawford,
Susquehanna,
Salway,
Tuscan Cling
and Alexander
PEACHES.**OREGON SILVER PRUNES.**Hatch's and Commercial Almonds,
All 1-year-old. No. 1 stock.

—ALSO—

**BARTLETT AND CLAPP'S FAVORITE
PEARS.**

Apples, Grapevines, Etc.

LEONARD COATES,

Napa City, Cal.

Seeds,GRASS,
CLOVER,
VEGETABLE,
FLOWER AND
TREE SEEDS.Importers of Australian and Japanese
Seeds and Plants. Holland Bulbs.

New Crop ESPERSETTE (Sainfoin)

Catalogues free by mail.

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411, 413, 415 Sansome St., San Fran'co.

**E. J. BOWEN,
Seed Merchant.**

ALFALFA,

Onion Sets, Grass, Clover, Vegetable
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Largest Stock and Most Complete Assortment.

Illustrated descriptive and priced seed catalogue for
1889, the most elaborate and valuable of its kind of any
Pacific Coast publication, mailed free to all applicants.
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815 & 817 Sansome St., San Francisco,
Or 65 Front St., Portland, Or.

100,000

BARTLETT PEAR TREES

The best kind for Shipping and Canning.

General assortment of all kinds of

FRUIT and ORNAMENTAL TREES,

Including

ORANGE AND LEMON TREES.

Also, a large stock of imported Fruit Tree Seedlings,
Apple, Pear, Myrobalan Plum and Mazzard Cherry.
A large stock of dormant buds, heavy-rooted.
Send for prices.

J. T. BOGUE,

Marysville, Cal.

Formerly of Martinez, Cal.

**RIVERSIDE
Nursery and Fruit Farm,
Lodi, Cal.**

JAMES A. ANDERSON, Manager.

A CHOICE COLLECTION OF

FRUIT, SHADE & ORNAMENTAL TREES,Shrubs, Vines, etc., both wholesale and retail at
Lowest Rates.SPECIALTIES—Nonpareil Almonds, I X L Almonds,
Royal Apricots, French Prunes, Bartlett Pears, Choice
Peaches in variety. Catalogues on application.**JOHN SAUL'S CATALOGUE**Of New, Rare and Beautiful Plants for 1889
IS NOW READY. It is full in really good and beautiful
plants, as well as all the novelties of merit. The rich
collections of fine Foliage, and other Greenhouse and
Hothouse plants, are well grown and at low prices.ORCHIDS—A very large stock of choice East Indian,
American, etc.
Also, Catalogues of Roses, Orchids, Seeds, Trees, etc.
JOHN SAUL, Washington, D. C.**Muscat Cuttings and Rooted Vines**

FOR SALE IN LOTS TO SUIT.

Address, EISEN VINEYARD CO.,
12 Stevenson St., S. F., or Fresno, Cal.**PEAR TREES.**15,000 two-year-old No. 1 Pear Trees, mostly Bart-
lette, Winter Nellie and Beurre Clairgeau. Will be sold
very cheap in large lots. Address, JAMES WATERS,
Pajaro Valley Nurseries, Watsonville, Cal.

ADRIANCE "BUCKEYE" MOWERS.



ADRIANCE ENCASED GEAR MOWER.



Size B cuts 4 feet 3 inches.
Size A cuts 4 feet 6 inches.

The size A and size B Mowers have a tubular iron frame of great strength and simplicity, which is made in one piece, and dispenses almost entirely with bolts. All openings for the shaft bearings are bored simultaneously by special machinery, and an absolute accuracy in position and line is obtained, impossible to be found in any other Mower made.

SIZES "F" AND "G."

These are our latest improved Mowers, and their complete success is attested by the fact that to meet the demand for them we were obliged to produce a supply for the season of 1888 that was a large increase over their sales of the preceding year.

Size F, 32-inch Drive Wheels, 5-foot cut.
Size G, 36-inch Drive Wheels, 6-foot cut.

Send for Special BUCKEYE PAMPHLET and CATALOGUE for 1889.

301 TO 309
Market St.,
SAN FRANCISCO.

HAWLEY BROTHERS HARDWARE CO.

301 TO 309
Market St.,
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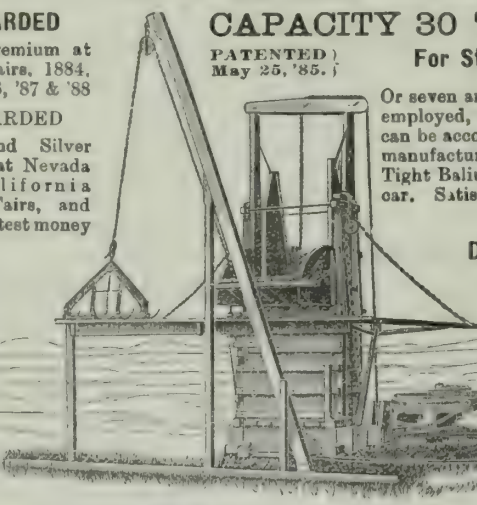
STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS

THE MILLER LIGHTNING HAY PRESS.

AWARDED
First Premium at
State Fairs, 1884,
1885, '86, '87 & '88

AWARDED
Gold and Silver
Medals at Nevada
and California
State Fairs, and
won contest money
of \$50.

Requires but Four Men
and Two Animals to
do Rapid Work.



CAPACITY 30 TONS PER DAY,
PATENTED May 25, '85.
For Standard Size Baling Press,

Or seven and a half tons per day for each man employed, which is more than has been or can be accomplished by any other Press yet manufactured. Twenty tons a day with Tight Baling Press. Can put ten tons in a car. Satisfaction guaranteed.

Does not require Hay Stacks
built to suit our Press.

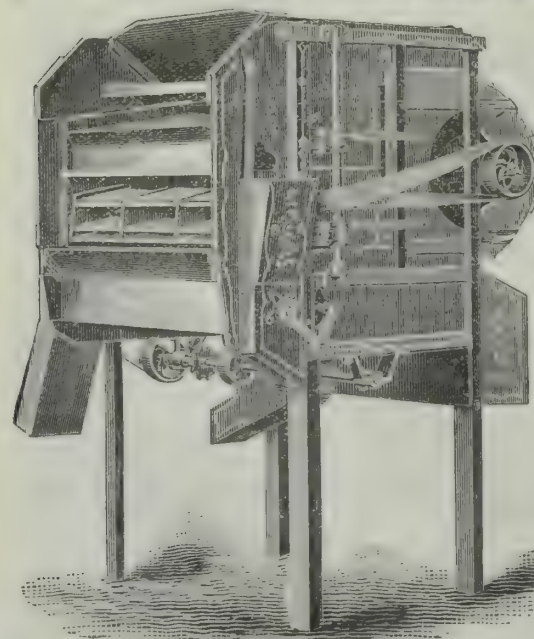
WOOL PRESSES
TO ORDER.

The "STAR" Double Shoe CLEANER

COMBINED HARVESTERS,
Awarded First Premium at State
Fair, Sacramento, Sept. 24, '87.
(PATENT APPLIED FOR.)

The "STAR" Double Shoe CLEANER
STATIONARY THRESHERS.

We also build to order the "Star" Cleaner with sufficient capacity for any threshing machine. It is mounted on trucks and can be set by the side of any "thresher," the power being transmitted to it by means of a counter shaft on the thresher, or belt from the engine. The grain is conducted to the hopper by an elevator extending from the grain auger of the thresher to that of the Cleaner.

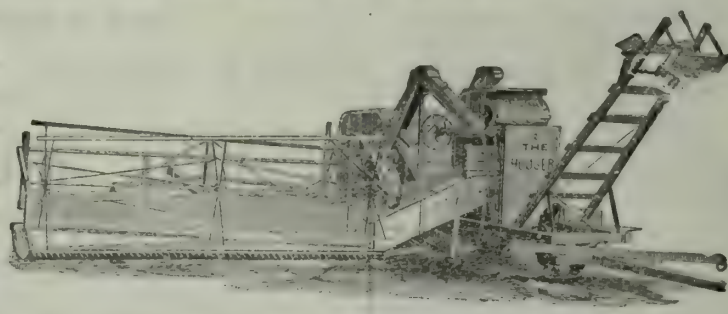


HOUSER COMBINED HARVESTER.

Received First Premium, State Fair, Sacramento.

No Experiment! No Failures!
NINE YEARS IN THE FIELD.

500 IN FIELD USE.



None Ever Returned.

They have a larger sale than all other Harvesters combined. Built for heavy work and large grain fields with heavy grain. Always victorious in competitive trials. They have reduced the cost of Harvesting to less than \$1 an acre, and save three bushels an acre over and above Heading and Threshing. Have our Premium Extra "Star" Double Shoe Cleaner, the only successful Harvester Cleaner made. Received First Premium in 1888.

WOODLAND, Sept. 19, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: The 14-foot Houser I bought of you this season fills the bill right up to the handle. I have cut 1200 acres; have threshed 628 bags of wheat in one day, averaging 140 bags for six days. The Star Cleaner and Improved Shoe are perfect, and last, but not least, I turn a square corner and save all the grain.

J. R. JONES.

YUBA CITY, Sept. 13, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: I have one of your Star Cleaner and Improved Shoes on my Houser Combined Harvester, and can say that the cleaner is far superior to any I have ever seen in barley, being able to return unboarded barley and pieces of heads direct to the cylinder, something that everybody can appreciate that has run a Harvester. The Cleaner is of sufficient capacity, I having threshed 650 sacks a day. It is well made and very durable. The new shoe is perfection. I consider the Houser very strong and durable, and as light draft as machines of lighter build of same capacity.

A. GRAFFIS.

BIGGS, Nov. 25, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: I bought one of your 16-foot Houser Harvesters this season and cut my crop of 1200 acres with same without any expense for extras. The Star Cleaner and Improved Shoe are perfection. Heretofore, when using another make of Harvester, I had to have all my grain recleaned at an expense of \$800 or more, but with my machine it was not necessary, as the grain was clean enough for seed as it was taken from the spout, and I only regret that I did not buy one two years ago, and I would have saved over \$5000. I prefer the Improved Houser to any other make of Combined Machines, and would recommend it to my friends in need of a Combined Harvester.

W. S. RIDDLE.

YUBA CITY, Oct. 15, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: The 16-foot Houser Harvester that I bought of you this season, with the Star Cleaner, gave entire satisfaction, and, I think, is the best Harvester in the market. Will recommend it to anybody or friend that wants to buy a Harvester.

J. W. HUMPHREYS.

Also Manufacturers of "Star" and Angle Sieve Grain Cleaners, Curved Standard Gang Plows and Plow Extras, Passenger and Freight, Motor, Cable and Horse Cars.

Office and Works, cor. East & Main Sts., 4 blocks East of S. P. R. R. Depot, STOCKTON.

PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol XXXVII—No. 9

SAN FRANCISCO, SATURDAY, MARCH 2, 1889.

\$3 a Year, in Advance.
SINGLE COPIES, 10 CTS.

A Great Cattle-Growers' Union.

Our readers have already been informed of the disposition among the range stock-growers of the great Central States and Territories to combine to overcome evils inflicted upon their interests by combinations of slaughterers and dealers in the great receiving cities of the West. The movement has progressed to formal organization, and it has been decided to incorporate the company as the American Live-Stock Commission Company, with a capital stock of \$150,000 and headquarters at Kansas City and Chicago. The incorporators will be Samuel Lazarus of Texas, A. Gregory of Illinois and Nicholas T. Eaton and Thomas B. Bugy of Kansas City. Articles of incorporation will be filed in Springfield, Ill. The idea of the promoters of this movement is to enable them to sell their stock at the highest price and with the least expense possible, and with that end in view headquarters will be established at Kansas City and Chicago, with branches at Wichita, Kas., Fort Worth, Tex., and possibly Omaha, where stock will be received and sold on the commission plan. The new company will not confine its business to its members, but will receive stock from others and will do a general stock commission business on a large scale.

Some idea of the magnitude of the movement may be had from the fact that the members of the organization now have 163,000 head of stock ready to bring to market. It is thought that as the movement becomes generally understood nearly every cattle-raiser in the West will join the company and make it a gigantic combination, which will enable the stock-raisers to practically do their own selling. The association believes itself to be strong enough to prevent combination of dealers and packers to reduce prices below a rate remunerative to growers.

A DECISION ON WATER APPROPRIATION.

The California Supreme Court has reversed the judgment of the Superior Court of San Diego in the case of Maria de Necochea vs. Minerva Curtis. The action was originally brought to restrain the defendant from diverting water flowing to and upon the plaintiff's land. The court below gave judgment for the defendant. The plaintiff is owner of 160 acres of land in

QUARANTINE GUARDIANS.—The State Board of Horticulture has just made a long list of appointments of quarantine guardians for the different districts of San Bernardino county. These appointments are under the new law, and will be followed by others in other counties of the State. It will be the duty of the quarantine guardians not merely to see that the laws are complied with, but to do their utmost to

Another Seedling Apple.

We give another of our series of California seedling fruits, the engraving being a photo-facsimile, made direct from the fruit itself by the Dewey Engraving Co. The apple is the Walsh Seedling, sent us last November by Jas. Waters of Watsonville, the well-known fruit-grower and nurseryman. Mr. Walsh of Aptos,

Santa Cruz county, found two seedling apple trees growing in his flower garden in such a situation as to lead one to guess that some one eating an apple had thrown the seed from the window upon the flower-bed below. Out of curiosity the little trees were transplanted, and after being two years in its new situation, one of them bore 13 apples, the third year hardly any and the fourth year quite a crop again. The fruit grows in clusters, at least four in a cluster, at the very ends of the limbs. The fruit is all of very large size.

Seeing the apple shown by Mr. Walsh, Mr. Waters of Watsonville secured buds and propagated the variety. At the start, he says, the tree does not seem to be a strong grower, but makes a fair sized tree

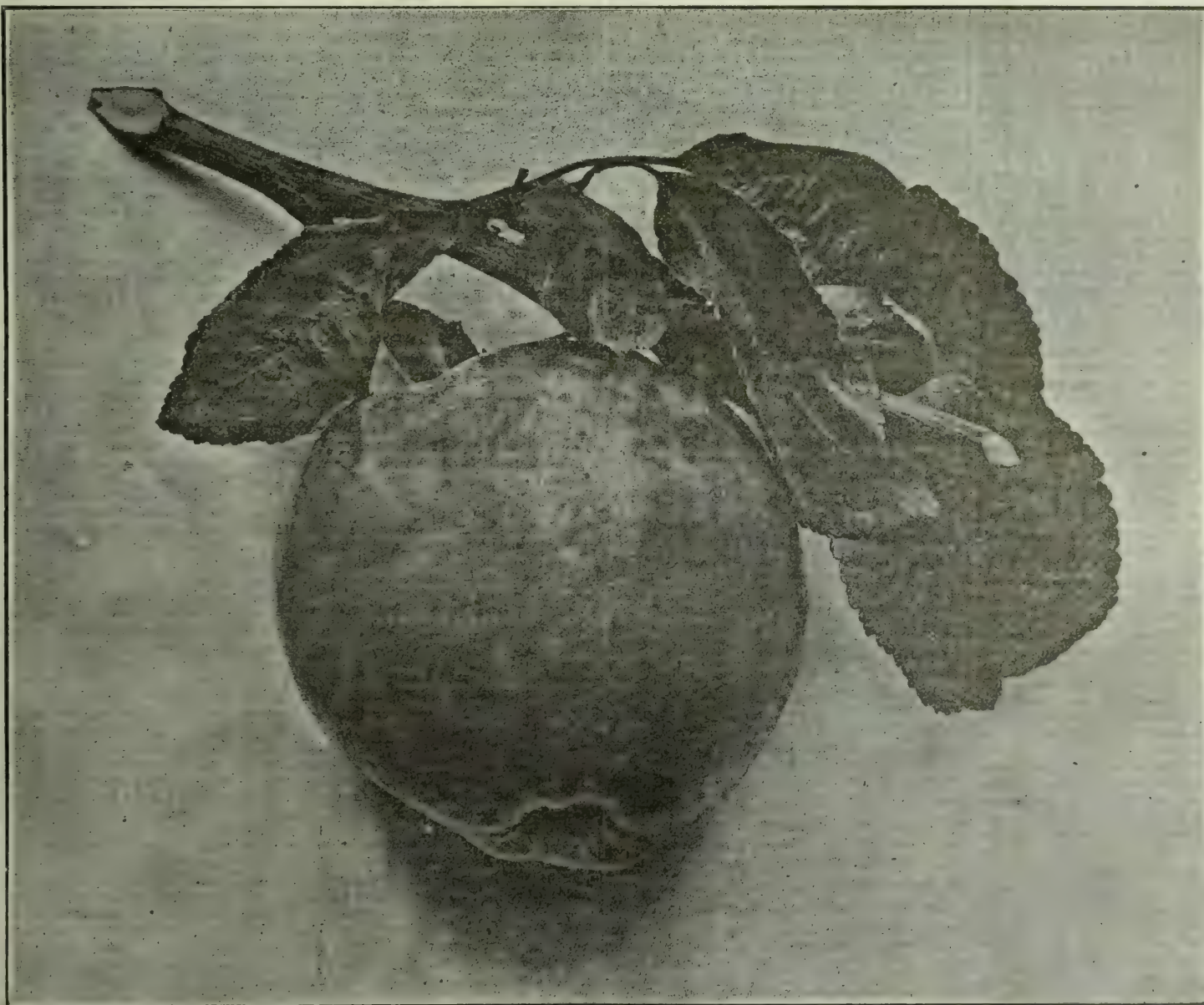


Photo-facsimile.

THE WALSH SEEDLING—AN APPLE ORIGINATING IN SANTA CRUZ COUNTY.

Dewey Eng. Co., S. F.

San Diego county, through which extends a canyon in which a natural stream of water flowed. The source of the stream is in a spring which in 1880 was on public land. The defendant settled on the land in 1880, and has since acquired a title to it. In the same year the defendant constructed a ditch and diverted the waters of the spring upon her tract of land. The Supreme Court holds that the defendant, when she obtained title to her land, did not acquire a right to the exclusive water of the spring. In this State it has always been the custom for persons to go upon the public lands and appropriate waters for all useful purposes, and the right so appropriated has always been good against any subsequent appropriator not having derived rights from the Government.

supply the State Board of Horticulturists with correct information concerning their various districts.

FORESTRY COMMISSION.—The Governor has appointed Senator F. J. Moffitt, John D. Spreckels and Walter S. Moore as members of the Forestry Commission. Senator Moffitt takes the place of Abbot Kinney, whose time has expired. The retirement of Mr. Kinney will be regretted by those who know how much of the work of the board has devolved upon him, and how zealously and intelligently he has performed it.

PHILADELPHIA is filling up with Chinamen. They are principally engaging in the iron business.

at two years old. Mr. Waters considers the tree a seedling of the Yellow Bellflower, judging by the fruit. The bark of the young shoots also resembles the Yellow Bellflower, though the growth is unlike that tree. The fruit, Mr. Waters claims, keeps in good condition a month longer than the Yellow Bellflower. It is uniformly large and where exposed to the sun is of a bright scarlet color. The fruit was shown at the Chico Convention and referred to a committee, composed of John Rock, C. W. Reed and B. G. Stabler, who reported the apple of the Bellflower type, and recommended that it be examined further with the help of a larger number of specimens, to discover its comparative standing with that standard variety. We shall probably soon learn more of its value.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Notes on Current Topics.

EDITORS PRESS:—To the good people of Contra Costa county who may believe, with the writer, that a neighbor, equally interested in the extermination of the squirrels, should not set a price upon his receipt for squirrel poison, I offer free the following:

One ounce of potassium, 2 drams.
Powdered strychnine, 1 dram.
Oil anise, 4 drops.
Oil peppermint, 2 drops.
Wheat, 1 quart.
Mix, let stand 24 hours, then spread on cloth to dry and dredge flour over the wheat.

The above is a "dead shot." One grain of wheat from this mixture will kill a squirrel, and in consequence but a few grains need be placed at a hole. The poison is effectually disguised and the wheat made appetizing by the anise and peppermint, but what is better, every one has the right "to use it without any charge other than the cost of the proportions."

Too much care cannot be exercised in the handling of the poison and in keeping the wheat in a safe place, as it is four times as deadly in its operation as the poisoned wheat sold by manufacturers.

Coyotes.

While on the subject of "varmints" I would say to Mr. Hoag of Booneville that the coyotes can be disposed of in several ways. Place an animal—that has died of some non-contagious disease—in the center of a large field, or at least a quarter of a mile from the brush or woods; let the coyotes work at it for several days, until they all learn its location and grow fearless, then chain up the dogs, sprinkle strychnine on the carcass and the following morning gather your coyotes. If the carcass is not too close to the woods or brush, Mr. Coyote will be found "toes up" within 100 yards of the bait.

If you have no bait, take lard. Place a tablespoonful on a flat stone that lies in the path they travel; with the spoon make a hollow in the lard, sprinkle in some strychnine, and then with the spoon cover the lard over the strychnine; don't touch the stone or lard with the fingers, or the coyote will be suspicious. If the bait is far enough away from the brush, you will find a dead coyote on the trail, as the lard dissolves immediately and the poison gets in its work at once.

Trapping Coyotes.

The coyote is as difficult to trap as a weasel, but he can be "taken in and done for" as follows: Drive two parallel rows of two-foot stakes about 18 inches apart, have the rows of stakes eight feet long; the tops of the stakes should be 18 inches from the ground; lay a piece of wood across the entrance at each end, have it, say three inches thick; now set a trap just inside of the entrance at each end and behind this crosspiece of wood, so that the coyote on entering will step over the wood and squarely on the trap. Tie a young kid in the center of the run, giving him no chance to work backward or forward. Cover the top of the trap over securely with brush. To make this trap doubly effective, place the trap and a pair of buck gloves in a sack of horse manure; when you are ready to set the traps, take out the gloves, put them on, and then set the traps, and cover with leaves, being careful not to touch the stick lying across the mouth of the run, the trap nor the leaves covering it, with the naked hands or your shoes.

On visiting your trap the following morning you will be surprised to find a coyote or wildcat fast in each trap, and the kid unmolested, though its safety can be made secure by driving stakes across the "run" to prevent the coyotes reaching it.

Calaveras Notes.

May Blossom Davis' letter in *RURAL* of Feb. 9, while good in description is faulty in facts. At some future time I will try and give a short sketch of Calaveras county, when the reader will see that there are several systems of irrigating ditches in the county and a visit to those sections will prove that there is a large area of land capable of being irrigated. If there are any "doubting Thomases" I would be pleased to show them lands suitable for fruit that can be irrigated and are for sale at less than one-fourth the price of the same character of land in adjoining counties. Please remember I have no land to sell.

Poultry.

I am more than pleased when the "chicken men" give their experiences in the *RURAL*. N. W. Geffroy of Lodi asks "Why is it the hens refuse to lay and the few chickens hatched out have not been strong enough to live?" I think the average "biddy" has given up the contest and the young chicks the "ghost" because they have found it worse than useless to compete with the Eastern chicks, raised in sections where feed is almost free and no more remunerative business than poultry-growing to be had. The Pennsylvania Grangers are working to have a bill passed to prevent dressed beef being shipped into the State. Our poultrymen will have to shut off this Eastern surplus before the hens will go to scratching and shell-ing out the eggs.

But to answer Mr. Geffroy seriously: chicks hatched late in the season are always weak. The past winter—if it can be safely called "past"—has been very mild, and in consequence, the "fowls laid all winter long" and are now "laid out," and the offspring of the hatches weak. Give your hens a hot breakfast of the following home-made poultry feed:

Cook potatoes, pumpkins, apples, onions, or any other vegetable, and when mashed fine add, while hot, to each five gallons:

Ground flaxseed, one quart.
Ground bone, one quart.
Cayenne pepper, one ounce.
Middlings, three quarts.

Mix and give a liberal feed. Place a little copperas in the drinking-water. Feed whole grain for supper. Clean out your poultry-house and give it a thorough whitewashing. My poultry have the run of the orchard during the winter, but are religiously excluded in summer. Chickens and gardens, like the hydraulic rammers and ranchers, won't work together for their mutual good.

To succeed with poultry requires, first, cheap feed; second, a good market; third, cleanliness and close attention to details. I prefer the Brown Leghorn and have the finest in the State. I also keep the Langshan (a good table fowl), Buff Cochins (no good), Minorcas (fine fowls that lay eggs the size of a duck's), Wyandottes (too tender), and a number of crosses, the best being that between the Langshan or Minorcas with the Leghorn.

Rattleweed.

This subject has been given considerable notice in the *RURAL* of late, and I wish to add my mite, though I should not do so if it were not for the disposition shown by some of your correspondents to dispute the effect of the weed when eaten by stock. In the winter of '79 I visited an English friend who owned a large ranch in Web Mountain valley, Colorado. He was the unfortunate owner of a large number of "locoed" horses, mules and cattle, and many were the exciting rides and drives we had with them, starting out with a strong sled and returning astride a single runner or riding "Crazy Jane" to Ulay and return on a "whoopla!" gait that was anything but desirable, especially as "Jane" refused to stop until she had completed the circuit. And the mules! how they would start in the woods, and making a bee-line for home drag the wagon over every obstacle until an unsurmountable one was struck, when the traces would have to give way. Their stupid, staring look, shriveled flesh (like that of a horse after crossing a desert), and then their wild and desperate charges over and through any and everything.

Having taken up the study of veterinary surgery, when engaged in the drug business, I was naturally interested in this, to me, new disease. I found upon investigation that the disease found the most victims when feed was short; that "once locoed always locoed;" that stock first eat it from necessity and not from choice; that the habit once formed, the animal—like the opium-eater—seeks the poison. The disease affects the brain, in many instances causing it to almost dry up.

There is no known remedy. Prevention consists in good feeding. Fields where the grass is mowed off short, and a large amount of stock then turned on to "root hog or die," produce the most cases, as the loco weed, growing along the fences, proves too tempting to the half-starved stock. I would like some of the skeptics to feed loco to some worthless horse and observe the effect, but be sure the horse eats the loco, as he will not do so unless compelled by starvation. E. H. SCHAEFFLE.

Murphy, Cal.

About Hollister.

EDITORS PRESS:—Hollister and vicinity has been visited by quite a nice little rain, which, although a little colder than was pleasant, has done a deal of good. Growing grain has taken a new impetus, and with the usual spring showers, bids fair for good crops.

The near foothills, as well as the mountain ranges, are covered with a dazzling coat of snow, which, although it presents a lovely sight, must be hard upon the stock pasturing there, as it probably will not melt for several days, and owing to the feed having been short for some time, the cattle are in poor condition to stand cold weather and live upon brush and expectation until the snow melts off the grass.

Farmers who have been borrowing trouble on account of the lack of rain for a few weeks would have had more peace of mind had they heeded the old saying, "Don't trouble trouble till trouble troubles you," as they now seem to have forgotten their scare, and greet one another with a cheerful smile and "How do you like the rain?"

Hollister has been working the tramps who loiter around town, nearly all the work done upon the courthouse grounds lately having been done by them. Several bands of tramps which were on the way to this town, upon hearing the fate of their fellow-footpads have given it a wide berth.

Quite a number of umbrella trees have been planted on the courthouse grounds, and promise to afford grateful shade in coming summers. Farmers fear lest the cold weather has blighted the almond crop, as the trees have been blooming for several weeks. A. F. Hollister, Feb. 17, 1889.

The Thirsty Cypress.

EDITORS PRESS:—We have always thought the cypress well adapted as an ornamental tree for the adorning of garden and lawns, as it does not make the litter which trees that shed their leaves during autumn and winter do, but always presents a pleasing appearance with its dark-green foliage at the time most trees look naked and scraggy.

Observation has taught us that, though the tree itself is attractive, the flowers and small shrubs which have been planted near it, after the first year of being placed there, do not thrive, but seem to dwindle away until finally they die out altogether.

Curiosity induced us to dig up the dead and dying roots of the flowers to see if we could solve the problem of their unthriftiness. Upon digging down in the earth a little ways to loosen the roots which penetrated deep, we found them to be completely surrounded and interlaced by innumerable tiny white roots of the cypress tree, which entirely encompassed them, thus preventing them from spreading and absorbing the moisture, completely choking them out.

When the roots yet living were transplanted to other soil, and away from the trees, they commenced to thrive, and are now doing well. Hollister, Cal. A. F. S.

THE FIELD.

Wheat-Growing in Sutter and Yuba Counties.

The history of wheat-growing in Yuba and Sutter counties is an interesting study. It covers an era of time when the greatest progress in wheat culture took place that the world has ever seen, until it seems scarcely possible that further advances can be made in this age of possibilities. It was introduced here before the discovery of gold, but so little was it understood as applied to our soil and climate that even the fabulous prices of breadstuffs in the first years of California gold mining failed to advance it to a paying industry.

The first cultivation of the soil began with a forked stick—that is, a small tree was cut below a suitable fork; one of the prongs was left sufficiently long to answer the purposes of the "beam," the other prong being short, for the "plow," and on the latter were nailed plates of iron or steel to make it wear longer. The butt end was dressed down and "handled," and this constituted the plow—if not of our forefathers it did of the argonauts.

The harrow was another forked stick, the prongs being of equal length, with wooden pins for teeth, the prongs spreading so as to form what is known as an A harrow. The team was a mustang, and the "harness" frequently consisted of a lariat fastened to the horn of a saddle, the pony being ridden—doubtless to "hold him down to his work." It is needless to say that such cultivation was confined to mellow, alluvial soil and to very small patches.

American occupation soon changed all this, and brought with it the cast iron plow of the East, and, later, the steel plow of the West. The genuine A harrow was also introduced, with timbers six inches square and iron teeth from 1 to 1½ inches thick. These improved tools, though crude, were sufficient to reveal a wealth of soil that was as surprising as the discovery of gold at Sutter's mill. The sickle was the first harvester used, then the scythe, then afterward the cradle, then the reaper followed with an army of binders. These again were succeeded by the header, a machine that astonished the world with its speed and adaptability. The first thrashing was done by drawing the grain into a circular pen, or yard, and driving a band of mustangs over it. The rainless harvest months gave ample time to do these things out of doors. The grain was winnowed by throwing it up in the air when the wind was blowing, which carried off the chaff, leaving the heavier grain clean upon the ground. Nothing more primitive than California husbandry was ever seen in the world's history, and yet no spot on earth offered such perfect opportunities for advanced agriculture as the soil and climate of California.

To follow the various steps of progress is not the purpose of this article, neither would space permit. What has been said is intended more to aid in pointing out the distinction between the present and the past. The gang-plow is a California invention and one among the first was invented and made in Marysville by A. Ellison. The best harrows ever used are the product of California shops, and from the laborious hand-sowing we have a machine that sows more perfectly 100 acres per day. All these improvements are now commonplace affairs, and when we thought the chariot of progress blocked, there comes a machine in harvesting that discounts the most progressive methods, so far as to break the power of comparison. A machine that cuts, thrashes, cleans, and sacks 40 acres a day of wheat or barley which yield 40 bushels per acre, and does it with only four men and 20 animals in a more perfect manner, in all departments, than was ever done by any former implement, is something so marvelous as to stagger comprehension. We can only exclaim: "What a grand privilege to have lived in this progressive era!"

This history of these two counties is also the history of the State; and they—through their aggressive and enterprising citizens—have ever kept in the front rank.

The earliest and best wheat was grown in these counties many years before the plains of Butte, Colusa, Yolo, or the San Joaquin valley were brought under cultivation. It brought the highest price in the milling market, and maintained a distinctive and superior reputation to the ends of the consuming world. It has since lost none of its early excellence, but its distinctive character has been somewhat merged with the general progress. Some of the earliest varieties of wheat grown here were the Australian, Chili, Sonora, and Red and White Club. Then followed the celebrated "Proper," than which no finer milling wheat was ever made into flour. This wheat originated in Sutter county under the careful nursing of the late Edward Proper. Then came the Pride of Butte, the handsomest and whitest wheat in existence, and a good yielder and very popular, but hardly equal to the Proper in intrinsic merit. The Pride of Butte originated in Butte county, our neighbor on the north, but there are those who believe the identical wheat made its appearance in Sutter county simultaneously with that in Butte—the work of A. H. Holland, one of our most successful farmers. In both instances the "plant" was found as a sport in other varieties of wheat—at least such is the case in Sutter. Other varieties have appeared, such as the Toozell and the Hardy, both excellent kinds and raised into prominence by Joseph Hardy, one of Sutter's most careful and painstaking agriculturists, from seeds received from the Agricultural Department at Washington.

The original Chili and Australia wheat disappeared almost entirely through degeneration and admixture, but during the past three or four years they have again appeared through importation in their original purity and quality, though possibly slightly changed from their early appearance.

One variety of wheat deserves more than a passing notice. It is the White Club (known by that name), also called Chili Club. The Salt Lake Club is very similar and many think they are all of one kind, blended together by cultivation in one district, whatever their condition may have been in other States or climates. This wheat is very popular with shippers; is good milling, but hardly equal to Proper, Australia, or Chili. It bears more hardships while growing, and after ripening will stand longer before harvesting than any other variety. It is good wheat to stand erect; has never been shelled seriously by the heaviest winds, and is therefore very popular with our farmers. The Red Club grows exactly like the White Club; in quality resembles the Sonora; both chaff and berry are a reddish hue; was not popular and rarely seen after the '50's.

As already stated, the mode of culture has vastly improved in these two counties, and with it the early fertility has not only been maintained but greatly improved. Fields that have been under cultivation for 25 or 30 years, or since the advent of the American farmer, are to-day as fresh and productive as in the beginning. No exhausted fields are heard of on the farms of Gen. Bidwell, Judge Pratt and others in Butte, or on Hook Farm, once the home of Gen. Sutter, and other old farms in Sutter county, or any of the older farms in Yuba, and on none of these has any manure or fertilizer ever been used, for the simple reason that the farms were too large to admit of it.

These great wheat plains being level, do not wash and send their fertility to the ocean. On the contrary, being level, they catch and retain washings from the mountains which surround them. The soil being warm and dry, and barnyard manure very heating, is said to be injurious to grain—at least such is the writer's experience, having found the best fertilized spots of wheat burned to death by an April hot wave.

Laying the land over in fallow is the best method of improving the soil and gaining the best results. The enormous crops of wheat last year (from 25 to 50 bushels to the acre) were grown on summer-fallowed land. This treatment is not a California discovery, but, like many other methods in agriculture, has been brought to a much higher state of perfection in our climate and by the hands of our progressive farmers. The first knowledge we have of its adoption in this State was by the late Samuel D. Denville of Yuba county, in 1858, on one of his farms on the Honcut, on what was considered worthless upland—red, gravelly and very dry. The result was marvelous, giving a yield of from 30 to 40 bushels to the acre. From this venture the practice spread to Sutter and other counties until it has become quite general throughout the State. But even this method has been largely improved upon here, and with great success. The great secret is to plow the soil when in good "plowable condition"—neither too wet nor too dry. The finer the surface the better the fallow, and the better the succeeding crop. If a single plowing will do this, all well; if stirring or reploting is required, it will pay. A growth of grass or weeds on the fallow is an injury and should be suppressed. The kind of tool with which to exterminate it is immaterial. First, deep plowing, then stirring shallow, is good; or first shallow and then deep, is also good; both methods are extensively practiced by our best farmers. Rough ground endures excessive wet weather best, and well-pulverized soil stands excessive dry weather best, or at least the crops do.—Sutter County Farmer.

The Contra Costa Squirrel Committee's Report.

The *Martinez Gazette* publishes the following report, which will be presented at the next meeting of the farmers to consult upon the best means of destroying squirrels:

The committee appointed at the squirrel meeting of Feb. 4th, for the purpose of suggesting means for destroying squirrels, submit the following report:

During the months of October and November we recommend the use of phosphorus as the cheapest and most effective method of killing squirrels, as at this time they will eat it best. Care should be taken not to put it out where there is any dry vegetation, or where stock can get at it, as it does not lose its strength by exposure. Scatter the poison well when putting out. There is usually a time in the fall of the year when the north wind blows. This is the best time in the year for killing squirrels, and we believe phosphorus the best poison to use at this time. Use about a pound of phosphorus to 75 pounds of wheat. We think the following the safest and, on the whole, the best method of preparing the poisoned wheat:

Have made a sheet-iron cylinder 2½ feet long by 18 inches in diameter, with a light iron shaft through the middle and a crank attached to one end. On the surface of the cylinder 18 inches from either end have a raised opening five inches in diameter. In this opening insert an air-tight plug. Fill this cylinder about half full of clean wheat. Pour in about a bucket full of boiling hot water. Insert the plug, turn the cylinder from five to ten minutes. Draw the plug, place a sack over the opening to keep the wheat from coming out, and drain the water out. Put in from six to eight sticks of phosphorus, distributed along the wheat, put on the lid and turn slowly for about 20 or 30 minutes. It is better to allow the poisoned wheat to remain a day or so in the cylinder before putting out. An ordinary syrup keg with a shaft and crank attached may answer the purpose of the sheet-iron cylinder.

During the months of December, January and February we recommend the use of phosphorus, strychnine and carbon bisulphide. All of the following receipts for mixing strychnine we have found to be good:

1. Seven quarts wheat washed clean. Let remain in water ten minutes, then drain dry as possible. Put one ounce strychnine in a teacup and grind it fine as flour. Put in enough water to dissolve. Stir this five minutes. Fill cup half full of water. Stir in brown sugar until it forms a syrup as thick as molasses, which will make a common teacup full. Add ten drops oil of anise and ten drops oil of rhodium previously mixed; stir well. Pour this over the wheat. Rinse the cup with a little water and throw it on the wheat. Stir vigorously until every kernel of wheat is coated with the syrup.

2. Stir one ounce powdered strychnine on one gallon clean dry wheat. Add the white of four eggs, stir thoroughly, add about one teacupful of powdered sugar.

3. Put one-half ounce pulverized strychnine in a teacup. Add one tablespoon full of sugar, pour in warm water until cup is about two-thirds full, stir until the mixture is thoroughly dissolved. Pour this on four pints of clean dry wheat and stir until the water is all taken up by the wheat.

4. Take five quarts clean wheat, scald with water, drain. Take two-thirds cup of white sugar, dissolve with sufficient water to make a syrup, add one ounce strychnine, stir thoroughly until a thin paste is formed. Pour this on the damp wheat. Stir thoroughly for at least 15 minutes. Add one pint powdered sugar, stir, add 5 to 10 drops oil of rhodium and 5 to 10 drops oil of anise.

The proper time for putting out strychnined wheat is late in the evening and early in the morning. It is of little use to put it out in the middle of the day. Rainy weather is not a good time. Crystallized strychnine may be pulverized in a common coffee-cup with a round-headed bolt. In mixing poison, the more one stirs it the better. In putting it out, put 20 kernels in a dry, smooth place near the hole. Scatter a little. Where barley has been sown, poison barley instead of wheat. If squirrels will not eat one kind of poison, they may another. In poisoning where the wheat growing in the field is soft, soften the poisoned wheat and squirrels will eat it much better. In any of the above receipts for strychnined wheat it may be well to add oil of rhodium, oil of anise or oil of cummin. If the oil of cummin is used, do not put it on the wheat until you are ready to put it out.

In March and April, when squirrels will not eat poisoned grain, we recommend the use of smokers and carbon bisulphide. Neither can be used to advantage when the ground is dry and porous. When the ground is wet we believe the use of carbon bisulphide to be the most effectual method of getting rid of squirrels. It may be put in the holes in any of the following ways: Take an ordinary quart fruit jar, fill it with small dry oak balls or cotton balls made the size of a walnut, fill this with bisulphide and allow it to stand for a short time. Put one ball in each hole (the further in the better) and cover the hole well with dirt. It is recommended by some to saturate lumps of dry horse manure with the bisulphide and put them in the holes. The liquid may also be poured in

the hole by means of a funnel-shaped tube. Care should be taken to tramp the ground over the hole. To succeed with this or any poison, one must be persistent and follow it up.

C. S. LOHSE, Chairman.
H. M. GREGORY, Sec'y.

HORTICULTURE.

The Future in Fruit—No. 2.

EDITORS PRESS:—I find the following statistics in the San Francisco papers:

EASTERN SHIPMENT OF FRUITS IN POUNDS.

	Fresh Fruit.	Dried Fruit.	Raisins.
1886.....	49,542,029	5,076,630	12,697,830
1887.....	50,749,950	15,865,680	15,484,550
1888.....	51,593,920	19,929,600	13,954,990

The facts herewith presented are sufficient to show the remarkable extent of the fruit industry in this State. Whether much further progress will be made as regards the green-fruit trade will naturally depend on the demand made upon it by the Eastern markets. The same also applies to the dried fruits, and in a measure to canned goods.

From the above statistics we learn there has been no very marked increase during the last three years in the shipments of green fruits. From the report of the secretary of the California Fruit Union, we learn the net returns of Eastern shipments to the fruit-growers of the State averaged \$1.95 per 100 pounds. That seems very good, provided the fruit-grower got enough out of the inferior fruit, kept at home to pay the expense of manipulating and marketing the same.

But another question on the shipment of green fruit East is: How much of our green fruits can be profitably disposed of in the Eastern markets? Of course there must be a limit to the quantity which can be so disposed of. That limit is yet to be found, and that, too, within the next year or so.

The above-quoted statistics show a very marked increase of the shipments of dried fruit last year over that of the previous year. Such was the speculative demand for dried fruits in the autumn of 1887, that all save what was retained at home for domestic use was shipped to Eastern markets. Such was the quantity shipped that the Eastern fruit market became stagnant, and much of this dried fruit had to be carried over to last year. Last year's shipments exceed that of 1887 by upward of four millions of pounds. This large amount was dumped on a market already fully supplied by Eastern domestic dried fruits, and that portion of the California dried fruit of 1887 carried forward to the succeeding year. But this is not all. The dried-fruit men got rid of all their dried-fruit crop at a profit in 1887. But now they are carrying a fifth or a sixth of the dried-fruit crop of 1888 here at home, and for which there is absolutely no market, and this, too, when is still ringing in our ears the cry: "We have the world for a market; we cannot grow too much fruit." For ten years this "Shibboleth" has been sounded in every hill and valley and in every city and hamlet in California, till at last the popular mind accepted it as an incontrovertible fact. Both propositions are false in theory and in fact.

At best the fruit-grower of California can only share the markets of the world with the fruit-growers who engage in the business near those markets. Send the product of his orchard to what market he may, he will be met by domestic orchardists in the same market. If to New York, Chicago or St. Louis, he finds the domestic orchardist there before him. If to London, Paris, or other European markets, he is met by the domestic producer at all those points. If to Australia or the Pacific islands, there he finds the domestic producer to contend with for supremacy in the markets. To take and hold the markets he must sell cheaper or offer a superior article at about the same price of the domestic article. He may perchance have something new to the market in which he offers his goods—something not produced by the domestic fruit-grower. If so, he must offer his goods at such a price as will induce the consumers to purchase them instead of purchasing the accustomed article. In every market of the world he is met and comes in competition with the products of cheap labor, and in most of the markets with the products of cheap lands. How, then, can it truthfully be said that the California fruit-grower has the markets of the world at his command?

Then again it has been proclaimed from every hilltop, we cannot grow too much fruit, if we grow only good fruit. This is sheer bosh and nonsense. There is scarcely a limit to the power of fruit production in the soil and climate of California. The extent of her fruit lands is so immense that she could of herself supply and meet all the demands of commerce for fruit.

Yet so firmly fixed in the popular mind is this "Shibboleth" of a world's market and limitless demand for California-grown fruit, that this year there will be not less than 2,500,000 fruit trees set in orchards from California nurseries and 1,500,000 from nurseries in Oregon and Washington Territory. This, too, is in addition to the regular annual planting which has for years been going on. When all these young orchards come into bearing, take some enthusiast on the fruit question, point out

the market where these products may be profitably placed, supposing the requisite help may be at command to manipulate the same.

Some who may read these articles in the "future" may put me down as a pessimist, a croaker, and an old foggy, and all that, but they may as well dismiss me from their minds and address themselves to the facts I have pointed out and the deducible consequences therefrom, and prepare in time to bear up against the reaction in the fruit industry, which is sure to come in the near future.

This thing of planting orchards is not local. Increased acreage is yearly being put to orchards all over the United States, Australia, New Zealand and Tasmania, and even the farmers of Old England have within the last five years gone largely into fruit-growing. So that those enthusiasts in California who have invested largely in the planting of orchards may well take heed as to what may be the final output of their ventures.

Haywards.

W. C. BLACKWOOD.

[As we remarked at the close of the previous article by Judge Blackwood, it is well enough to look upon all sides of questions, and, therefore, his position is worthy of contemplation, but we have no idea that there will be a serious overproduction of fruit, though there may be, of course, depressions. We have heard so much of overproduction, which was anticipated but never realized, that we do not fear it. The saving clause is that demand increases with increased supplies of desirable articles, and it often increases beyond the expectations even of the most sanguine. We anticipate that this will be the case with the fruit product.—EDS. PRESS.]

Drying Peaches Again.

EDITORS PRESS:—In relation to the inquiry of "Tenderfoot" about the best method of making good dried peaches, I will give my plan.

One of the most important things in the process is to have good fruit, neither too ripe nor too green, and hard.

In the second place, good trays, such as they dry raisins on, are almost indispensable. You handle them easily; they are more convenient than cloth or plank because you can carry them from the room where the fruit is prepared and placed on the trays to the sulphur bath.

Care must be taken to place the sulphur pan far enough below the trays to prevent burning.

To make a scaffold to place your trays on, set stakes in the ground about two feet high, nail fencing boards at the top in rows two feet apart. The trays should face to the southwest so as to get the full benefit of the afternoon sun.

Sawed redwood shakes make very good trays. They should be nailed with wrought nails to a rim of one-inch square lumber.

Have a room to handle and store your fruit as it is dried. Make it moth-proof, with tight walls and screens over the doors and windows.

The doors and windows should be closed at night and open every day to facilitate drying.

To make bright, clean, merchantable fruit, have all your trays of an even size. Pile them up every night to keep out the dampness and the moths; uncover them in the morning after sunrise.

Do not let your fruit get too dry on the trays, but examine it critically, for when some are perfectly dry other pieces will be partly dry. Carry the fruit into the storeroom and bulk it, turning it over every two days to equalize the dampness, and whenever it is dry enough to keep, sack it at once and keep it bright and clean.

MONTGOMERY PIKE.

Santa Maria

The Early Harvest Blackberry.

EDITORS PRESS:—By this day's mail I send you specimens of the new "Early Harvest Blackberry," cut at random from my patch of imported vines, in all stages of growth—bursting bloom buds, perfect blossoms, bunches of green berries and clusters of the almost ripe fruit—which, for the 30th of January, I claim to be a showing that will not only make our Eastern visitors open their eyes, but also "astonish the natives," hard as that is to do among us old Californians.

This is the third year that I have fruited the truly "Early Harvest Blackberry," and I find, extravagant as were the claims of its originator for it, that it maintains them all in California.

It truly "is so early, bears so well, eats so well, ships so well and sells so well, that it is of very notable value for a large portion of the United States." Yet in California it finds just the climate to perfect all its peculiar points to the highest degree, since there are no winters cold enough to really stop its growth, and it leaps into the arena with the new year, it almost seems, with fruit all set and ready, to begin its work.

Its beautiful pink-tinted blossoms mark it as a distinct order of blackberries, and the beauty of the rows in full bloom is a thing to be seen, not described.

L. U. McCANN.

Santa Cruz.

THE APIARY.

Inspection for Foul Brood.

"The bee and honey industry of San Diego county is badly in need of a backbone," said Bee Inspector Segars of San Bernardino county, just before starting on his return north to-day. "So far as I have learned you have no bee inspector, prices are not maintained, and the contagious disease of 'foul brood' is affecting the hives. I suppose that it is the fault of the apiculturists themselves that they are without an inspector. We had none in San Bernardino county until last year, when the bee men found it to their interest to petition the Supervisors for one, and they put me in. I should not be surprised if a good many now engaged in the industry were ignorant of the fact that a law was approved in March, 1883, which reads: 'An Act to authorize the Boards of Supervisors of the several counties of this State to appoint inspectors of apiaries and provide for their compensation and defining their duties, and for the further protection of bee culture.'

"This Act further authorizes the Supervisors to appoint one or more inspectors of apiaries, who shall fix the compensation, which is to be paid from county funds not otherwise appropriated. Section 3 directs that upon complaint being made to the Inspector that 'foul brood' exists anywhere in the county, it shall be that official's duty to inspect the apiary and have the hives which are affected, with the comb and bees, either burned or buried that following night. Any person who may discover the disease is also authorized to destroy the apiary as directed, otherwise he will be deemed guilty of a misdemeanor and is liable to a fine of from \$5 to \$25 for the first offense, and not over \$50 for the second.

"Now, while I have been admiring your city and arousing myself to a full realization of the great future to which it is inevitably destined, I have also been looking into the matter of the honey product and shipping. I find that the contagion of 'foul brood,' which is a disease of the larvæ, prevails in the northern and eastern portions of the county. I heard complaints of this before I came down, and if the disease is not arrested it will eventually paralyze the industry throughout the county. I do not mean to say that your honey does not grade as well as that of Los Angeles or San Bernardino, but I do know that you are not receiving as good prices for the product. One instance I recall, in proof of this, is the statement of Mr. Root of Medina, Ohio, in his *Bee Gleanings*. He traveled through the county last December, while on a visit to relatives in San Diego, and he reports that bees in good condition were offered him for \$1.25 a hive. I recollect that in 1881 honey could be bought here for three-fourths the price that ruled in the other two counties. We receive \$4 a hive in San Bernardino.

"I would like to advise the San Diego county bee men, through the *Sun*, to look after their own interests better. They ought to petition the Supervisors for a bee inspector, as they would then be more secure in their property. I am paid \$3 a day and mileage, but think the rate will be raised to \$5, as the duties are onerous.

"The apiculturists of our county received a surprise when I set to work. Of the 7000 hives there I have inspected 4000, and I found 719 different diseases afflicting the bees, 'foul brood' being the most prevalent. One lady who owns 100 hives welcomed me cordially. Her bees, she declared, were in perfect condition and she was prepared to receive a certificate of health. I discovered that just 99 of her hives were diseased.

"Professor Cooke of Lansing, the expert, says of 'foul brood' that there may be 1,000,000 disease germs in a single cell, any one of which if carried on the foot of the bee to an adjoining apiary may infect the whole stock. Queen bees brought from the coast often carry the contagion with them. The worst county in Southern California for the contagion is Los Angeles, where if there is an inspector I have never heard of him. I find it hard to work alone. If your county and Los Angeles would appoint inspectors and the bee men would organize in some way to maintain a standard rate, there would be more money and less loss in the business, and the contagion that is now getting such headway would be stamped out."

Mr. Segars has been an apiarist for 13 or 14 years, and his ranch in the Fairview district, seven miles north of San Bernardino, in the foothill belt, is one of the best conducted in the State.—*San Diego Sun*.

The Best Hive.

EDITORS PRESS:—Will some beeman kindly inform a number of inquirers here in Southern Humboldt which is the best hive for our use? We desire to keep a few stands for home use. Is the best hive patented? If so, can we obtain right and working plans to make our own hives? Our distance from any source of supplies and lack of transportation facilities would make freight on hives more than first cost. Also other apiary supplies and such directions for beginners as any of the PRESS correspondents may be pleased to give, all of which will be gratefully appreciated.

O. L. PRELPS.

Blocksburg, Cal., Feb. 20, 1889.

PATRONS OF HUSBANDRY.

Correspondence on Grange principles and work and reports of transactions of subordinate Granges are respectfully solicited for this department.

Greater Inducements for Subscriptions.

NEW RATES for PACIFIC RURAL PRESS.

Annual Subscription	\$3.00
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Official Endorsement.

In consideration of a certain contract entered into this day between Dewey & Company, publishers, and the California Patron Publishing Company of San Francisco for the publication of a weekly Grange edition of the PACIFIC RURAL PRESS, and the California Patron as a monthly,
Resolved, That the Executive Committee of the State Grange of California hereby designate and endorse the PACIFIC RURAL PRESS as the weekly organ and the California Patron as the monthly organ of the State Grange of California.

Officers' Mid-Year Meeting.

Pursuant to a resolution of Brother Webster at the first State Deputies' Grange meeting ever held (so far as we are informed), there will be held early in April a second meeting of District Deputy Lecturers, State Officers and visiting Patrons of State and subordinate Granges, at the office of the Secretary in this city. The success of the first meeting called by Worthy Master Overhiser last April was such as to warrant the expectation of a larger and still better gathering this year. It comes midway between the annual meetings of the State Grange and in good time to lay out and adopt plans for the spring and summer field work of the Order.

Some time since the Masters of Subordinate Granges were requested to confer with each other and recommend Patrons for appointment as Deputies for the ensuing year by the Worthy Master. We judge there is little desire for changes in the present Deputies, as no recommendations, we believe, have so far been received. Where Deputies have served well during the past year it is no doubt a good Grange principle to let well enough alone. Six months having elapsed since the State Grange met, we should be pleased to receive reports of the progress on the part of Deputies, in hopes that it may liven up interest in the Order in some places that have not been lately heard from.

At the request of the Worthy Master, we thus again call attention to the request that Masters should take action and recommend the appointment or reappointment of Deputies in their various districts. He desires that names for appointment should be received by the tenth of March, if possible, otherwise at the next earliest moment in order that they may be duly notified of the April meeting.

New Ritual Offerings.

Tulare Grange seems to be No. 1 in procuring the Worthy Master's new ritual premium. Merced Grange as far as heard from is No. 2. Now the Worthy Secretary, on behalf of himself and other Patrons, feels authorized to support the Worthy Master's proposition by promising a set of the new rituals and an officer or a visiting member of the State Grange to assist when needed in conferring the Third and Fourth Degrees under the new ritual to all Granges that will get up a class of 10 for instruction before the Deputies' Meeting, which will occur in the early part of April.

Now, who will be Nos. 3, 4, 5, etc.? Let us hear soon from all sections. Let every Grange try for the 10 members. Aim to make the class double that number. If any try and fail, just let us know and due credit shall be given for their efforts, whatever they may be. Strike at once. Commence work and work with a will and for success.

Interstate Commerce Report.

For a copy of the second annual report of the Interstate Commerce Commission to the Secretary of the Interior, the State Grange is indebted to the courtesy of Commissioner Aug. Schoonmaker of New York.

Besides the report proper, the volume includes a copy of the Act "to regulate commerce," whereby the Commission was created and its functions defined, a resume of Canadian and English legislation concerning traffic on railways and canals, decisions by the Commission, rules of practice, statistics, tables, etc., which with the extensive indexes swell the work to 354 pages.

Suggestions by S. T. Coulter.

Bro. Past Master Coulter, who was personally acquainted with Bro. Darden, has kindly written on this subject, at our request, as follows:

By reference to the Proceedings of the Eighteenth Annual Session of the State Grange of Mississippi, it will be observed that the subject of the erection of a monument to the memory of the late Hon. Pat Darden was considered and determined upon and an opportunity offered to the several State and subordinate Granges to participate in the work. Bro. Darden was for several years Worthy Master of the State Grange of Mississippi and a member and officer of the National Grange.

In the National Grange, by the courtesy and kindness and the zeal and industry by which he was everywhere and at all times distinguished, he won the esteem, confidence and affection of all he met.

At the annual session of the National Grange held in Lansing, Michigan, in 1886, he was chosen as the executive head of the Order. By a decree higher than any mortal power, and to which all must humbly bow, he has been removed from the labors and duties of life, and we that are left to mourn his loss are to have the melancholy pleasure of an opportunity of participating in the erection of a memorial of his virtues.

I suggest that the W. M. of Cal. State Grange send a circular letter to the Granges calling their attention to the subject and giving direction how such contributions as they may make shall be brought together and be forwarded.

It may be esteemed an assumption on my part to make any intimation as to the amount to be contributed, but I will venture to say that, as most of the Granges under the jurisdiction of the National Grange, and many individual members of the Order, will most likely desire to participate in the work, and as any considerable pomp and grandeur would be inappropriate in a monument to the memory of one so distinguished for his personal humility, perhaps from three to five dollars from a subordinate Grange would raise an amount sufficient for the work in hand.

We understand from Worthy Master Overhiser that this will be one of the matters considered at the coming meeting of the Deputies. In the meantime we would suggest that both Granges and individuals who feel like contributing can do so through the Treasurer of the State Grange, care of the Grangers' Bank, San Francisco.

Good Effects Evident.

Following the course of Worthy Master Carr's visitation the fore part of February, we have to report a class on the way to the Master's office at Tulare of 20. At Merced there is a strong prospect of a class of 10 more. At Stockton we expect a much larger class, quite a number of petitioners having already signed. Surely Sacramento will not be behind her sister Granges that received the benefit of Bro. Carr's visitation. San Jose is announced to be good for a class of 10 or 20. Elliott Grange, we believe, has 10 or more; and we hear from Woodbridge Grange about the same. Temescal Grange has also lately elected two applicants.

Surely Bro. Carr and his friends should feel gratified at the success of his generous work in a sister State. The more fraternal visitations we have between subordinate Granges and different States the better for us all. We shall not die regretting having visited and assisted our fraternal neighbors too much or too often.

New Granges.

We have word from Brothers Webster and Logan that a new Grange with 20 or more members is to be organized at San Miguel, San Luis Obispo county, Friday, March 1st, and that Paso Robles Grange in the same county will be reorganized, good and strong, on the following day. There are confident hopes that several other Granges will be reorganized in good shape very soon in San Luis Obispo county.

San Miguel and San Lucas, newly organized, and Salinas, Gilroy, Hollister and Paso Robles, reorganized, will give us six Granges put in operation anew in about 30 days, and so the tide pours southward. Who will start the ball rolling in the North? There ought to be flourishing Granges at Chico, Oroville and Colusa, as well as quite a number of other places in Butte, Colusa and Shasta counties.

More About Picnics.

The time will soon be at hand for Patrons to arrange plans for holding their annual picnics. We hope the young (as well as the old) members of no subordinate Grange will be denied the pleasure of one or more day's enjoyment of such fraternal meetings in the open air of our glorious Pacific climate. We hope the wise men and women of our Order will also plan for district (and, if possible, State and interstate) picnic gatherings.

The Wright Law Again.

EDITORS PRESS:—I notice in your issue of February 16th a communication from T. N. on the Wright Irrigation law which represents the views of the majority of the farmers in the Modesto Irrigation district, and as your valuable paper seems willing to give the farmer a hearing, I venture to add something on the subject. All that T. N. writes is true and to the point. The law is not only "lame," but it is an expensive scheme, railroaded through the Legislature by lawyers and speculators, in order to boom the towns at the expense of the farming community. The law is framed according to their own ideas, and for their own benefit, without regard to the wants and needs of the farmers.

The majority of the farmers want irrigation, but not under the Wright law.

Our papers have purposely suppressed the true facts, and have sent out to the State the impression that the farmers are unanimous in their desire to put this law into operation.

The instigators of this movement know better; they know there is a strong current of feeling and open opposition to it in the Modesto district. The farmers have already had a foretaste of the benefits to be derived (by some one else) from this system, and their eyes are being opened more and more to the evil effects that this man's forces upon them.

The Daily Evening News makes the statement that the cost to the Modesto Irrigation District amounted to \$676,300 for the year 1888; but the editor modestly refrained from adding that nearly double that amount was levied for the same year, and the farmers have been forced to pay the greater portion of it.

It would be well for farmers to think well where the money is to come from to meet the enormous expense of irrigation under the Wright Law.

Modesto, Feb. 22, 1889.

[We give the above communication for the reason that if there are two sides as to the farmers' interests in the Wright Irrigation Bill, it is time the public knew it. We are not surprised that there should be some opposition to it. It is hardly possible to form a law which suits everybody. For months we have been urging Granges and farmers to meet and discuss irrigation matters. We hope that every Grange located in sections requiring irrigation will put this question foremost and discuss it and report their proceedings, that we can plainly see how a majority of actual land-owners are really interested in this law, both for the present and future.—EDS. PRESS]

EDITORS PRESS:—I notice that the Wright law is criticised in the RURAL of February 16th by an irrigator of the southern part of the State. I am no writer and not competent to discuss the irrigation question, but I do think that a law so crude, defective and unjust ought to be criticised more than it is through the press of the State. A petition was sent from the Modesto Irrigation District to the Legislature to have the Wright law repealed, which petition was signed by over 100 land-owners, among them one director and one ex-director, and had over 50,000 acres represented notwithstanding there was only two days' time to get their signatures in. There is no doubt that out of the district, comprising about 108,000 acres, from 70,000 to 80,000 acres do not want water under the Wright law. It is said that the banks will not loan money on mortgages, as they do not consider it a safe investment, for the reason that if the bonds are sold the land is given as security, and is hidden over all other mortgages.

SUBSCRIBER.

Meeting at Tulare.

Dear Sir and Brother:—Yours of the 22d at hand. In answer I will say the 2d day of March is the time we have decided upon to confer the Third and Fourth Degrees, and would be pleased to have you and Bro. Flint here with us. We conferred the First and Second Degrees so you and Bro. F. would not be overtaxed on that day. Sister Smith from Oakland was with us Saturday. Perhaps she may see you before you come down here. Oh, it is giving us some rain that we need. Fraternal yours,

D. O. HARELSON, Sec.

In response to the above call, the Worthy Lecturer and Secretary of the State Grange will endeavor to be on hand in good season. We are not afraid to go anywhere with Brother Flint as "spokesman in general" and "first-class traveling companion."

We hope to be able to spend nearly a week in Tulare and Kern counties, greeting old and new friends and enjoying the beautiful climate and charming views to be taken in at this season of the year. Also in some way to be useful to the cause during our visit, but shall depend on the Worthy Lecturer to draw the crowd and entertain them.

We trust a large number of Patrons will come forward from Lucerne Grange, as well as many sojourning Patrons, to see and listen to our able and good-looking Lecturer.

Proposed Legislative Reforms.

Of Immediate Importance.

The following communication has been received and is hereby referred to the immediate action of each subordinate Grange in the State for discussion and action thereon. Each Secretary receiving a copy is requested to present the same at the first meeting of their Grange, without further communication. In fact every Patron reading these views is requested to consider them in his own mind, talk about them with others, and be present at the Grange and discuss them. And further, see that they are presented in time for a fair consideration at the State Grange.

W. L. OVERHISER, Master of State Grange of Cal.

A. T. DEWEY, Sec'y State Grange.

SAN JOSE, CAL., Feb. 19, 1889.

A. T. Dewey, Secretary Cal. State Grange:—DEAR SIR: At the meeting of San Jose Grange on Saturday, February 16th, there was an unanimous opinion expressed that some movement should be made to convey in some effective manner to our legislators the ideas of Grangers throughout the State.

We have been appointed a committee to transmit our views to you, and to suggest that a communication be prepared and sent to the various Granges embodying the same or similar principles that you may think appropriate, for consideration and approval or other action.

Our ideas are these:
New Laws Proposed in the California Legislature.

1. That the movement to abolish the tax on mortgages should be opposed, firmly and decidedly, as it is by this means that a portion of the property of wealthy men can be discovered and made to do its share in supporting the expenses of government.
2. We believe that in all cases where aid is given to agricultural societies to encourage agriculture, that no payments should be made to them when they allow gambling operations.
3. That the bill providing for the formation of county or township fire insurance companies, on the mutual plan should be encouraged and pressed forward to enactment. The insurance combination bears very heavily on the agricultural class.
4. The proposed law against trusts and combinations would be largely in the interests of agricultural sections and ought to become a fact.
5. The bill providing for the manufacture of grain-sacks in our penal institutions, and their sale to farmers at a slight advance upon actual cost, would relieve grain-growers from the effect of one of the greatest combinations ever formed, and every Granger should favor it.
- No. 6. The bill presented for an improved election law, similar to the so-called "Australian system," amended by striking out the provision for numbering each ballot and for indorsing the name of the voter upon the back of his ballot, we think should be passed, believing that such a law would prove one of the most beneficial and important.

Yours fraternally,
D. G. FEELY,
S. P. SANDERS,
HENRY A. BRAINARD,
Committee.

Patrons, do not fail to report the result of your discussions on the above or any other important subject without reporting promptly, if admissible, to your local and the RURAL PRESS. In this instance, also, see that your members of the Legislature are as expeditiously and as impressively as possible advised of the views and wishes of their constituents.

Nearly all the subjects named here have recently been discussed in the RURAL PRESS and Patron. Articles on the "Australian System of Voting," etc., can be found in the RURAL for Dec. 15, 1888, Jan. 26th, Feb. 9th, Feb. 16th, and March 2, 1889.

A GOOD time was no doubt had at San Joaquin County Pomona Grange meeting at Lodi on the 28th, with Brother D. Woodman of Michigan present. He can always say solid and entertaining things without making much fuss about it, and is always welcome wherever known among Grange circles. He is hereby specially invited to revisit Temescal Grange, and we venture to say the Eden and San Jose brothers and sisters.

THE coming session of the Oregon State Grange is expected to be one of much interest to the Order. Let all who can, be in attendance. It opens Tuesday, May 28th.

IMMEDIATE ATTENTION of Grangers is called for discussion and action on the bill now before the Legislature, reviewed by Bro. J. V. Webster in this issue, in connection with the San Jose Grange circular.

PATRONS, ATTENTION.—The circular relating to legislative action, prepared by San Jose Grange, has been sent to all subordinate Granges in the State.

Legislation.

Some Facts Plainly and Ably Stated on Important Bills.

Messrs. Editors:—In the multiplicity of subjects before the Legislature for consideration, two appear most vital: The re-assessment of property for delinquent taxes since and including the year 1880, and that proposing to divide the State and District Fair Associations into two departments. They stand in the order of their naming. The bill presented in the Assembly by Bro. Ostrom and that presented in the Senate by Bro. Langford are identical with and copies from one presented in the Assembly two years since by Judge Venable of San Luis Obispo county. His bill was referred to an unfriendly committee, and consequently was never heard of afterward. It was at the time pronounced by several able attorneys to be constitutionally sound and eminently just. Since then a vast array of legal opinions and decisions have been found fully confirming this view of reassessing property that has escaped taxation through defective law and assessments.

The Reassessment Bill.

As is well understood, the chief purpose of the proposed enactment is to compel the Central and Southern Pacific Railroad Company to pay its delinquent taxes, amounting to over twenty seven hundred thousand dollars. In a recent interview with the *Post*, Colonel Fred Crocker is represented as saying: "Of course we understand that it is a popular thing to attack the railroad company in this way." If it "is popular to attack the railroad company in this way," why is it so? A more generous and liberal people than the average Californian never lived. The meed of praise is always given where it is due. To the energy and enterprise of the Central and Southern Pacific Railroad Company the people of the State are almost unanimous in their high appreciation. Seldom if ever in the history of modern progress can be found an example of more determined power and perseverance than that displayed in California railroad building. For comfort, dispatch, and courtesy of officials there is no superior to the Central and Southern Pacific railroad system. Thus far will every fair-minded man go in praise of our great railroad magnates. Then why is "it a popular thing to attack the railroad company in this way," as Mr. Crocker declares? That there is an "unpleasantness" existing between the company and the people there is no kind of question. It is deplorable, but who is to blame?

Seeing the defects in the old system of railroad assessments, the Constitutional Convention of 1878-9 provided for such assessments through a State Board of Equalization, in cases where more than one county was concerned. There the present trouble commenced. Not being subservient to the railroads, the Board has annually made an independent, and as it considered, an equitable assessment of such property. The rate was raised considerably above the old standard. This angered the railroad people and they have been fighting the tax ever since, and have, in consequence, avoided paying any State or county taxes only what they were "minded to pay."

In his interview with the *Post*, as published, Mr. Crocker says: "We regarded the assessments in those years as invalid, and tried the cases in the State and United States Courts, and won them on every issue brought up."

"We would not have so much cause of complaint were it not for the fact that those who make these attacks will not, or do not, state facts, when dealing with questions affecting the railroad company." Do Mr. Crocker and his people always state facts when dealing with the people? In the above language, attributed to Mr. Crocker, he has certainly prevaricated, and substantially declares that their defense was based, not on the injustice of the State's claim for the payments of his company's delinquent taxes, but, as he says, because "we regarded the assessments in those years invalid."

That many people have exaggerated the "facts when dealing with questions affecting the railroad company" is certainly true. Likewise Mr. Crocker overstates the facts when he declares that "we tried the cases in the State and United States Courts and won them in every issue brought up." Let us see.

Now the facts are about as follows: The main question at issue in the controversy has never been decided and Mr. Crocker certainly knows it. The Federal constitutionality of the assessments levied by the State Board of Equalization as provided in Art. 13, Sec. 10, of our State Constitution, has ever been and is the chief point in the controversy, and has never been affirmed or denied by the Supreme Court of the United

States. That august body has been switched off on a side-track by the railroad's attorneys every time the question has been brought up for adjudication.

First, in the San Mateo case, the main point was squarely presented on its merits, argued and submitted, when the railroad people, finding that the decision would be against them, telegraphed to Col. Creed Haymond to go down to San Mateo and pay all the taxes due the county with costs, which was hastily done, and upon this showing before the court the case was dismissed. In the San Bernardino case the court was switched off from the main track to the fences running parallel with it, and consequently decided that the assessment was illegal, because said fences were assessed as a part of the road-bed. Subsequently the same court was run off on the franchise tangent, and decided that said franchise being a Federal gift, could not be assessed for State and county purposes. Thus we have been going helter-skelter for the last nine years without any practical results. So in order to finally settle this apparently interminable controversy, the bill referred to has been introduced for approval by the Legislature.

It is certainly just in its provisions. Its chief purpose is to reassess all property of the Central and Southern Pacific Railroad Co. for the several years since and including the year 1880 (save that of 1888-9 and for which this tax has been fully settled) giving full credit for the amounts already paid and to enforce the collection of the residue, less the taxes levied against the franchise, which, as before stated, has been declared illegal.

This is all and nothing more. It gives the railroad people a chance to gracefully get out of its unpleasant predicament, and at the same time settles the controversy in a way that should be acceptable to all concerned. Justice and equity to struggling taxpayers all over the State demand that the bill shall pass and be enforced, consequently our legislators, severally and collectively, should be urged to secure this end.

Agricultural Appropriation Division and Anti-Gambling Bill.

The second bill mentioned is also of great importance. The purpose of which is to divide the State and District Agricultural Fair Associations into two departments—to be termed a stock department and an agricultural and horticultural department, between which the State's biennial appropriation for their support shall be equally divided. As the law now stands this is never done. The reason is that every agricultural fair board in the State is chiefly composed of stock or sporting men, consequently are disposed to favor the interests of that calling rather than that of the small farmer and horticulturist. This tendency is but natural and can only be restrained by a legal and equitable division of the appropriation. Another provision of the bill is that no gambling in any form shall be allowed on the fair grounds, nor in any other place under the jurisdiction or control of the Board of Directors of any such fair associations.

In order to enforce the spirit of this section it is further provided that the president and secretary of each and every such fair association under State control shall make oath or affirmation that no gambling in any form has been allowed on the fair grounds or in any place under their control, during the progress of the fair, and forwarded to the Controller of the State before any of the appropriation can be drawn out of the State Treasury. It may be said that the law, as now formed, prohibits gambling in such places. Very true, but it is not enforced and never will be, because of the unpleasant duty devolving upon somebody to make formal complaint and give testimony when the case is on trial. But the condition in the law proposed that if gambling is allowed the appropriation shall be forfeited, and requiring the president and secretary of such associations to make affidavit that gambling in no form was allowed, before the appropriation can be paid, coupled with the fear of a term in the penitentiary for swearing falsely, would effectually bar the appearance of cards, dice, "wheels of fortune" and other devices to rob boys and suckers out of their money, to the disgust and harrow of wives, sisters and mothers, who have heretofore observed such practices on nearly all such occasions.

Both the propositions herein contained were unanimously indorsed by the State Grange held at Tulare last October. A Legislative Committee, consisting of Bros. S. T. Coulter and Thos. McConnell, are attending to the work in Sacramento, and it is certainly the duty of every Patron and farmer in the State to strengthen their hands in every available way.

J. V. WEBSTER.

Creton, Feb. 20, 1889.

An Interesting Address.

At the meeting of Watsonville Grange, February 16th, installation of officers was the order of the day. On taking the chair, Worthy Master Edith Z. Roache said:

Brothers and Sisters:—Since my election to the highest office in your gift, I have had abundant time for reflection. During this time two conflicting thoughts have continually warred for the mastery.

The first was: Am I doing my whole duty to the Grange in allowing myself to be placed in this more than responsible position? The answer to this question was a prompt no. For when I considered how tempestuous was the sea on which our Grange ship is launched, how dangerous the shoals, how terrible the vortex selfishness into which it is plunged, I saw what the requirements of an officer to guide it should be, and shrunk from it, knowing that it needed a stronger hand, a wiser brain, a more subtle mind, than I possessed. On the other hand, I remembered that reforms are exceedingly slow; that radical changes, however just, carry responsibilities peculiar to themselves. Knowing also the prejudice that men, and especially women, are not slow in exhibiting toward any woman, dragged, as they are pleased to term it, from her "legitimate sphere" into the garish blaze of public notice, I again hesitated, for, thought I, how can a woman contend against this array of dangers? Amid my confusion this idea occurred to me: A fact gleaned from an atom is as much a fact as one gained from a mountain. A lesson taught by a flower is as truthful as if from a giant oak. Right is a great, undying, universal truth that cannot be confined or hampered long by the narrow channels of sex, public opinion, creed, race or station, but, like some brilliant star, casts its radiance on all alike, and while few may see the glory, the most humble may guide the feet of yet humbler travelers on the great highway called life. But not yet satisfied, I went still farther in wandering mazes lost—thought of my own insignificance, of the great and far-reaching principles that underlie all human action. The good and bad, the vices, follies and frailties of mankind, passing as in review before me, and again my courage faltered, when suddenly a voice said: "Coward, would you shirk your duty because it is disagreeable—because of the wounds you may receive in battling for right? Success means effort. To gain the mountain-top, its rugged sides must first be scaled." At this stage of my reverie, the words "On, Stanley, on!" flashed like lightning before me. I had scarcely recovered from my surprise when I unconsciously uttered these words of our obligation: "I solemnly promise to labor for the good of our Order, our country and mankind." This decided me. I had crossed the Rubicon, and now I stand before you in all my weakness, but determined to do my best.

Law may prescribe conduct, fashion may disfigure the body, the shaft of the unkind or false word pierce the heart, while prejudice and ignorance may distort the soul. But the mind—ah! the mind, untrammelled by naught save the glebe in which 'tis nourished, may gleam, glisten and scintillate, unshackled by even the infinitude of space. Here, then, is common ground; here, then, is to be found the true worth of humanity, when divested of all that wealth and position can give. Here no Brutus to our ambition is found, save self. This, brothers and sisters, is something we all possess only in different degrees. Let us use it in its highest sense in furthering the interests of our Order we all love so well, but for which most of us sacrifice so little. Onward and upward should be our motto. For when knowing that the cause for which we labor is the noblest in which mortals can engage—"the elevation of mankind" from the lowest depth of selfishness, greed, and inhumanity to that exalted position wherein he becomes the noblest work of God, the spirit of the glorious task should so suffuse our being, that with justice for our standard, progress for our watchword, freedom for our talisman, happiness for our reward, we should draw the sword of action and with shields of love strike a responsive chord in the hearts of every true man and woman in the land. This is for what we are organized. To fail short of it is to fail in what every Patron should consider a special charge. Until this is done, let no man or woman assert that the mission of the Grange is accomplished, or that they individually have done their whole duty to their God, their country and their firesides. And now, Patrons, in conclusion, I do earnestly request that you accord to me that generous support which has characterized your intercourse with my predecessors. For it must not be forgotten that without your zealous and intelligent co-operation, a Master alone is helpless. Let us unitedly strive to make the Grange one family indeed, for around it center the hopes of our nation's future glory. With dissensions from within and jealousy from without, with boldness and badness ever increasing and annually yielding an immoral weed crop, that is swiftly and surely stifling truth and honesty, and fast making us a nation of intellectual sharpers and rascals, we turn imploringly to the conservative tillers of the soil. In the name of justice and patriotism, beseech them to come to the rescue of our poor suffering country.

Let us then, brothers and sisters, render ourselves worthy of the great confidence reposed in us. By every effort of our being strive to ennoble labor, and "by our united efforts return to the wisdom, justice, fraternity and political purity of our forefathers."

How Shall We Spend Our Time in the Grange?

Bro. Dewey: I have asked a question. And as it is not in good taste to treat a question in silent contempt, I want an answer either oral, mental, or written. Life is short and time is precious and we have not a moment to throw away. I often think if I had started in 20 or 30 years ago and devoted one hour a day to some useful purpose, how much I might have accomplished in that time. I spent ten years on an invention and finally received the great seal of the patent office in Washington. If each one will make up his mind how the time outside the routine business in the Grange should be spent and go there and express his views, we will have a diversity of opinions, a diversity of subjects, many a happy hit, many a useful suggestion and open our minds to a world of new ideas. If we cannot learn "everything of something, let us learn something of everything."

It has been suggested to me that I should propose questions for discussion in the Grange throughout the State on certain dates. I am willing to propose the questions, but it strikes me that all the questions that I might suggest might not be applicable to all locations.

Some few questions would be applicable to all locations, such as: What depth and size of plow, that land may retain moisture the longest? How soon after plowing should land be harrowed? On what kinds of soil is it best to use the clod-crusher, and on what the roller? Does it damage sandy soil to plow or cultivate any time except when excessively wet? Should any land be plowed when it is so wet that it leaves the mold board in a polished or glistening condition?

These questions and sundry others are applicable and proper to be discussed in all locations, and will apply to all branches of land culture.

There are other questions, such as: When to sow alfalfa? Does the frost damage the young plant? At what stage of growth should the first crop be cut? What crop should be cut for seed? Such questions as these should be discussed in the locality where such crops are grown. Topics on butter-making and fruit-growing should be discussed in their respective districts. If a Grange is so fortunate as to be in a locality where there is a diversity of culture going on, then they can hardly take up a question amiss. It seems to me to be better for each Grange to select their own questions and time for discussion. But do not fail to select something, and select something that is familiar to all, so that the most humble and timid can participate in the discussions.

The Grange was not instituted altogether to assist the bright ones, but it is a duty, and I feel it a privilege, to lend a helping hand to the most humble. A great many members will come into the Grange and say they have nothing to offer, nothing to suggest, nothing to exchange.

Has such a person's mind been a blank for the last two or four weeks? Has his vision been obscured? Have his ears been stopped? Has mental paralysis taken possession of his whole being?

If any individual or Grange will notify me that they are short of material for discussion, I will furnish them with enough to last their natural lifetime. If you are about to make improvements on your place, or invest in improved stock, or embark in a new enterprise, why not state that in the Grange and ask suggestions? It may assist you greatly in your enterprise, or save you from failure and losses.

I do not believe we advise or discuss our plans with each other enough. In ten minutes' discussion the other day with my foreman, of a proposed change, I saved at least \$10 and made it much better.

We tillers of the soil have got to furnish the bread and butter to keep the rest of the world alive and in good humor.

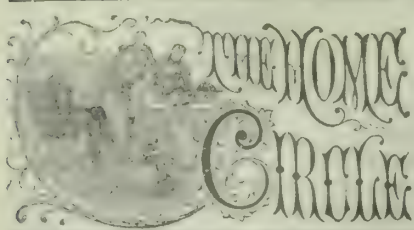
There is no good reason why we should be downcast or despondent. Let us go to our task as though it was self-imposed, and with no less satisfied expressions on the face of the producer than there are on the face of the consumer.

By our own individual and collective exertions raise the standard of the tiller of the soil to that proud position where it shall be the envy of the world.

Burn the bridges in the rear so there shall be no retreat. Then every member will feel the responsibility and redouble his exertions to gain the goal.

D. F.

LAMBS "EARNING" THEIR WAGES.—One of the San Francisco dailies tells how some "laborers" on the new wings of the City Hall earn their *per diem*. In mixing the concrete for the foundations, large beds of broken rock and cement are made, and these are stirred up by the use of an ordinary garden cultivator and a one-horse plow. Each of these implements requires no less than three men to run it. One man leads the horse, another holds the handles and steers, and still another walks alongside and bears his weight on the beam of the plow or cultivator. The queer spectacle has been watched by many during the past week, and once in awhile a passer-by who had had a little experience in engineering a one-horse plow without the assistance of two supernumeraries, would stop and gaze in wonder at the "city" method of plowing.



"Flash," the Firemen's Horse.

Flash was a white-foot sorrel, and run on No. 3; Not much stable manners—an average horse to see; Dull an' moody an' sleepy on "off" and quiet days; Full of turbulent sour looks, an' small sarcastic ways.

But when, be't day or night time, he heard the alarm-bell ring, He'd rush for his place in the harness with a regular tiger spring, And watch with nervous shivers the clasp of buckle and band. Until it was plainly evident he'd like to lend a hand.

An' when the word was given, away he would rush an' tear, As if a thousand witches was rumplin' up his hair, An' wake his mate up crazy with his magnetic charm; For every foot-beat sounded a regular fire alarm.

Never a horse a jockey would worship an' admire Like Flash in front of his engine, a racin' with a fire; Never a horse so lazy, so dawdlin' an' so slack As Flash upon his return trip, a-drawin' the engine back.

Now, Flash got tender-footed, and F'a h was finally sold To quite a respectable milkman, who found it not so fine A-bossin' of God's creatures outside o' their reg'lar line.

An' once, in spite of his master, he stroll'd in 'mongst us chaps, To talk with the other horses, of former fires, perhaps: Whereat the milkman kicked him; wherefore, us boys to please, He begged that horse's pardon upon his bended knees!

But one day for a big fire as we were makin' a dash— Both of the horses we had on somewhat resemblin' Flash— Yellin' an' ringin', with excellent voice and heart, We passed the poor old fellow, a-tuggin' away at his cart.

If ever I see an old horse grow upward into a new, If ever I see a driver whose traps behind him flew, 'Twas that old horse, a rompin' an' rushin' down the track, And that respectable milkman, a tryin' to hold him back!

Away he dashed like a cyclone for the head of No. 3, Gained the lead, and kept it, an' steered his journey free; Crowds a yellin' an' runnin', an' vainly hollerin' "whoa!" Milkman bracin' an' sawin', with never a bit of a show.

He watched till he see the engine properly workin' there, After which he relinquished all interest in the affair, Laid down in his harness, and, sorry I am to say— The milkman he had drawn there drew his dead body away!

That's the whole o' my story; I've seen more'n once or twice That poor dumb animals' actions are full of human advice; An' if you ask what Flash taught, I simply answer you then, That poor old horse was a symbol of some intelligent men. —Will Carleton.

Mrs. Pringle's Quiet Day at Sunnyside Ranch.

[Written for the Rural Press by SAMUELLETTA DICKSON.]

The clock struck nine just as Mrs. Pringle gave the porch the last vigorous stroke with her broom and then went into the house. "I shall have a nice quiet day all by myself," she soliloquized, "with the older children all at school and little Johnnie gone with his father to town. It is only Thursday." This last remark was addressed to a pile of mending that lay on the sewing machine. She stopped just a moment to glance at the contents of the last magazine, as she dusted the table, and gave a nod of satisfaction. It was the first chance she had had to peep at it, although she had listened the evening before to the children's comments on the pictures, while she finished a new jacket for Tom, who had come from school with his old one in a deplorable plight. She now put away her broom and duster, gave a look about the kitchen to see if all the necessary work was done, and assuring herself that it was, started to take a bit of rest with the magazine. Truly she had earned her rest, for since sunrise she had been working as fast as she could.

Besides breakfast for her family, chickens, pigs and calves had been fed; the milk-pail, churn and long row of milk-pans shining in the sun told their story of labor; there was the odor of newly baked bread and pies in the kitchen; four wide-awake children had been prepared for school; and John Pringle had been helped off to town with a wagon of produce, eggs,

butter and fruit. He had taken four-year-old Johnnie with him "to give mother a day of rest," something that came but seldom in her busy life.

With the feeling of enjoying a great luxury, she now took up the magazine, dropped into her rocking-chair, and, drawing a long breath of contentment, was just settling herself for solid comfort when a sharp bark from Collie, the faithful dog, warned her that something was wrong. Looking out, Mrs. Pringle saw in the wheat-field the whole band of Neighbor Smith's cattle. The magazine was dropped without even a thought of regret, for those cattle must be got out quickly, and there was no one to do it but Mrs. Pringle herself, for John and the children would not be home till night and Farmer Smith was off haying five miles away.

Hastily throwing on her gingham sunbonnet, she went to the corral, mounted the black mare, and, calling Collie, began her undertaking.

First she tried to head old Lineback, the leader and the worst fence-breaker in the county, through the broken place in the fence; but that wise old cow had urgent business in another part of the field, and thither she hastily departed followed by all the rest, except one half-grown calf.

He looked so gentle, and there was that proverbial meekness, which poets describe, in his liquid eyes, that Mrs. Pringle thought he could be induced to retrace his steps, and she gently suggested to him to do so. He apparently acquiesced in her wishes, and walked along before her toward the opening in the broken fence, only pausing to take an occasional bite of wheat.

He was right there; his head was in the right direction. Mrs. Pringle gave him a slight touch with her switch, and uttered a quick cry, when lo! instead of jumping through the aperture, he suddenly wheeled, lowered his head, elevated his tail like a flag of defiance, and with an explosive "ba-a-k" dashed after the rest of the herd.

Around and around the field the aggravating beasts led the tired woman, till finally they were expelled through a gate at the opposite corner whence they came in. Having proved conqueror in defense of her home, or rather grain-field, Mrs. Pringle might now take her rest, so, with magazine in hand, she sought the cool shade of the trees that fringed the creek near the house, where, seated on a low, swinging willow limb, she enjoyed her reading, while every sense was filled with delightful gratification.

A delicate odor from trees and flowers floated about, and the singing of birds mingled with the soft droning of insects.

If her eyes, tired with reading, lifted themselves from the printed page, they looked only on objects that pleased—whether trees, birds, flowers, or even the palpitating heat as it quivered above the earth.

Lulled by the sensuous harmony, Mrs. Pringle had nearly fallen asleep when she was aroused by a rustling among the dry leaves in a clump of willows, and turning to see what it was, she espied the head of the old gray turkey for whose nest the children had hunted the ranch over.

Discovery is a source of gratification, whether it is of the revolution of the earth, a continent, or a hen's nest in an unexpected place; and the human mind delights in agreeable surprises.

Mrs. Pringle's unlooked-for discovery drove away all her sleepy reveries; she put the eggs in her apron and proceeded at once to the barn, where she set them under a faithful old hen safe from the coyotes. Having disposed of the eggs to her satisfaction, she took a dish of cracked wheat and a can of water and made the round of the coops in which were her small chickens. This done, she went into the house and took a lunch of bread and milk, at the same time finishing the magazine article she was reading when interrupted by the turkey. Intent with her reading, she was holding her spoon with the last mouthful resting on the rim of the bowl, when Collie's alarm was again heard, and her quick ear detected mingled with it a pig's note.

"There! John went off without fixing that sow's pen, and the pigs are all out!" she exclaimed.

Down went magazine and the untasted mouthful, and clapping John's old straw hat on her head, she rushed out and saw seven plump, energetic black pigs happy as possible in the vegetable garden. Disturbed in their bliss, seven small black snouts were held up in a manner half of inquiry, half of saucy defiance; but a sudden attack of Collie brought a quick change over their spirit of bravado, and with many notes of squeals and grunts, away they scampered in their undulatory, happy gait, for all the world like a school of porpoises, three in one direction and four in another. The latter band Collie chased toward the pen, and Mrs. Pringle succeeded in getting them back with little trouble, and putting a plank over the place where they dug out, thought she had them secure.

Meanwhile Collie had started after the other three, who had found the June apple tree in the orchard, and was now in full chase after one which ran for a barley-field near by.

Another one ran into the chicken-yard, where Mrs. Pringle found him eating wheat in one of the coops, and he was easily taken captive and returned to the pen.

She then began a search for the third pig, which was little Wee-Wee, but he had vanished.

She looked all about but could find no trace of him till a happy, contented little grunt revealed him in the front yard vigorously cultivating Annie's flower-bed.

"Oh, you little wretch!" cried Mrs. Pringle, hastening to save her daughter's loved plants that she had tended and watered with so much care. Seeing that he was discovered, the pig only hurried the faster to accomplish his self-imposed task, and plunging his energetic little snout under the roots of Annie's favorite geranium, tossed it completely out of the ground. Mrs. Pringle aimed a clod at him, but it missed him and struck off the one bud on a small Bon Silene rosebush, while he turned toward her a pair of small wicked eyes twinkling with self-compacency and continued his digging. But another clod better aimed, and a threatening stick, drove him off, and after a chase several times around the yard he was caught and put into the pen in a hurry, for a terrible outcry among the barley told that Collie had seized his pig. As he was apt not to be very gentle in handling refractory pigs, Mrs. Pringle rushed as fast as possible to his rescue, for vexed as she might be with their mischievous pranks, she did not want her fat little porkers injured. She picked up the struggling pig, which squealed louder now he was off his feet than when Collie had him by the ear, and started for the pen.

The old mother hog, in her frantic efforts to get to her distressed young one, had knocked down the plank, so the pigs were crawling out again as fast as possible, and Mrs. Pringle was just in time to prevent the last one from getting entirely out. A man would have sworn, but Mrs. Pringle, not being a man, simply said "Oh dear!" as she dropped the squealing pig into the pen and leaned panting and out of breath against a post while she wiped her hot, perspiring face with her apron.

Putting the plank again over the hole and tying it with a bale-rope, she said, "There now!" triumphantly to the inmates of the pen, and then started to hunt the runaways before they should get into mischief. In her haste to get the pig away from Collie, she had left the gate into the yard open, and Wee-Wee had returned bringing the rest with him. They had found a five-gallon oil-can partly full of sour milk which they had overturned, and were enjoying to their hearts' content. At this stage of affairs, the dog detected them, and with a loud bark, made a sudden dash through the gate after them. One pig had his head in the overturned can, and frightened by the dog's unexpected arrival, wedged himself in further, so he could not turn to get out, and Collie's nips and pokes in the rear prevented him backing out. His desperate squeals muffled in the tight can were comical to hear, and Mrs. Pringle laughed at the sight till the tears ran down her cheeks. But with the three other pigs loose in the front yard, she had no time to lose, so she picked up the can, pig and all, while the poor prisoner, terrified still more at finding himself standing on his nose, an involuntary acrobat, uttered prolonged and piercing cries till he found himself safe in the pen.

The three remaining pigs, driven from the milk by Collie, had run under the house where they found a sack of potatoes, and when the dog made an attack on them there and chased one out into the yard, the other two returned to the potatoes. So in and out under the house went pigs and dog, but never near the open gate, although Mrs. Pringle made vehement efforts to head them that way.

Tired and out of breath, she at last stopped and took a view of the situation as follows: "I may chase you all the afternoon, and never be able to get you out alone. I'll pen you in till the children come home."

Fortunately only one side of the house was open underneath, and she found boards and boxes enough to barricade that all except a few feet. After she had dragged out the potatoes, she said to the dog: "Now, Collie, you lie down there, and don't you let one of those pigs get out!"

The intelligent creature wagged his tail as if he understood, and lay down by the opening. Mrs. Pringle went into the house, bathed her heated face, and then sat down in her low rocker and for several moments enjoyed the luxury of absolute rest, till her eyes chanced to see the basket of mending.

"This will never do," she said, her native energy reproaching her for the indulgence of *dolce far niente*; so, drawing the sewing machine near the open window, she began her work, and while the busy fingers made the needle fly, she hummed a soft, low song. She was one of those happy souls who lighten the burden of toil and care with singing, and any one who knew her could read her thoughts by the tenor of her song. Now she trilled a love ditty as memory went back to the old home among the New Hampshire hills, and to the little red schoolhouse where she and John used to go to school, and where one night going home from singing school, he had asked her to be his wife. Then a sad strain sounded through her singing as she reviewed leaving the old home, and the trials of the new Western home; and while her needle neatly wove threads into the ragged toe of little Johnnie's stocking, there were tears in her eyes as well as in her mournful chant, as she remembered the tiny grave where her first baby lay, whose little feet rested ere they learned to walk. But as she laid aside the mended stockings and took up Tom's jacket, that always had a tear about it somewhere, her tune became gladsome, for she was thinking proudly of the boys and girls who had

come to her since, and her song now was like the owner of the jacket—impulsive, rollicking, but kind-hearted Tom, the pride of his mother's heart, in spite of his endless pranks which were ever getting him into unforeseen disasters.

Just then the squealing of her captive pigs under the house reached her ears, and with an exultant chuckle she began to sing:

"Three black pigs, oh, how they run!
They all run after the farmer's wife,
She caught them all under the house,
Did ever you hear such a trick in your life,
Of three little pigs?"

Thus with active hands and happy thoughts, Mrs. Pringle's afternoon glided by, and not long after the clock struck four she heard the sound of wagon wheels and laughing voices, and the next moment Farmer Pringle drove up with a wagon full of children whom he had picked up at the schoolhouse.

Before the horses had stopped they began to tumble out in noisy glee, and all began to talk at once to mother who had come to the gate to greet her flock. How she managed to know what each one said all at once would have puzzled any one but a mother used to such a crowd; but she did, and at the same time told them her tale of adventures, and added: "Now get off your school clothes quick and catch the pigs and feed the chickens, while I make a fire, skim the milk and get your supper." As they scattered helter-skelter, making as much noise as possible, Mrs. Pringle, as she took the basket of groceries from her husband, said: "It does seem good to have the children back after a quiet day!"

Hollister, Cal.

A Real Country.

[Written for the Rural Press by MAUDE S. PRASLER.]

How rarely children realize, when studying of the ancient life in foreign countries, that such things really ever existed.

Time, as well as distance, throws a misty veil over it, changing it from an affair of everyday life to a half-probable tale of the past. The most unreal to me of all the lands of which I studied in my younger school-days was Greece. Yes, Greece, the country which the C. L. S. C. is presenting so attractively to its students this year. I could bound it without mistake; could tell of Leonidas and his dauntless three hundred, of the battles of Marathon, Salamis, and other "victories no less renowned;" had read of the glorious Age of Pericles; but when the day of its history, as laid down in my text-book, was over, it was as dead to me as if the sea had swallowed it where it lay.

Much of this was due to the crowding and cramming we had to undergo at school, but there were other reasons in after life, and my attention gradually drifted away from it, save as recalled by an occasional mention of political matters in modern Greece occurring in the newspapers.

I became familiar with other countries from descriptions I read of them in the stories and novels of the day, but cannot remember more than a single novel I have read, the scene of which was laid in Greece.

I am glad I am to have a chance this year to become better acquainted with Greece as a real country, as well as to review the ground I passed over in the classics years ago.

Let us keep closely to our work, fellow-students in the C. L. S. C., and be sure we will not feel so far away from Greece as many of us do to-day when we have finished the ten months of work laid out for us in this year's course.

Grass Valley.

Must the Piano Go?

It does seem as if the piano had reached about the end of its tether. Its compass, says a German journal, has been extended to the utmost acoustical limits, and it has been improved until there appears to be no more room for improvement. The virtuosi of the present day have attained, practically, perfection in execution, and the compositions of Chopin, Schumann, Liszt, Tausig and Rubinstein are as difficult as any music can be which is capable of being performed on the piano by a single pair of hands. Then what next? Nature abhors a vacuum and art abhors a halt. There is no use in doing over again what has been done already well enough. We must be original. We must advance. We must invent new lines or new ideas in composition, or else not compose at all. We must play better, or at least try to play better, than Rubinstein or Von Bulow or Joseffy, or else confess ourselves mere acolytes and imitators. This is the spirit of the true artist—of true art. But it is hard to see how there can be any further progress in piano music or piano playing. In this crisis, however, it is allowable to hope to see before long some new instrument no larger, no costlier, no harder to master, than the piano, which shall combine the string principle and the wind principle, and unite the best qualities of the piano and the organ—in other words, a miniature or microcosmic orchestra. Such an instrument would be unhampered by the great deficiency of the piano, which is an inability to sustain tones, or, rather, to sustain some tones while not sustaining others; and when such an instrument is invented there certainly will arise a new group of performers, altogether distinct from the present piano virtuosi, and musical composition will take a fresh start on a line of absolute novelty and originality.

The Farmer's Wife Goes from Home.

(Written for the RURAL PRESS by MARY P. ARMS.)

It would not be strange if the busy round of work which so fills the days of the farmer's wife were to make her feel that going from home lies quite out of the range of her possibilities. If there is no one with whom to leave the children, they must needs be arrayed in something better than the clothes required for every-day wear, and taken from home with the mother, the task becomes too hard to be of frequent occurrence. If it seems among the necessities of things that the farmer's wife go from home some days and take her little ones with her, what a piece of work it is to make ready, to be sure! It is well that woman's life be given over to the smaller details of living, or else some of the many necessary things would surely be overlooked. So many different wants are to be thought of, so many different articles provided, and so much thought given to the comfort of those who are to be left at home; so much providing of substantial food for the farm hands, who, if they look well to things outside, have little time left to devote to the culinary art, even if they were versed in its mysteries. Many last things are to be done before taking children for a winter ride in a north land. What a putting of overshoes on to small feet, and a tying of hoods under small chins; what a distributing of mittens and muffs; what a putting on of veils, to at least tangle the wind, as it makes fierce onslaught on small noses and cheeks. And while the mother-hands are attending to all these things inside, the farmer may not be less busy without. Of course there are wealthy farmers who do not find it necessary to give attention to small matters, but by far the greater portion of those who till the soil are at a loss both for funds and time to meet their needs. It is well, then, for him who has learned, to combine business with pleasure, and whenever the latter shall take him to the city, to have something to dispose of for which a larger price will be offered than in the villages lying nearer home.

The true secret of successful farming is to produce much. We do not feel the experience of our lives to agree with the poet's assertion:

"Man wants but little here below;"

And while our wants are many, the variety of our farm products should be numerous, a part of which we should dispose of. Just how many boxes of this same farm produce—butter, eggs, cheese, or honey—can be packed away in a light spring wagon, wherein a family are to ride, experience alone can prove.

Those of us who live in regions remote from towns find one of our sources of disquiet in the fact that our children are denied the advantages others in more favored localities possess. But the law of reciprocity works here as well as elsewhere. When children have been denied any glimpse of life in even our smaller cities until they are six or eight years of age or even more, how wide open their eyes are, how all their faculties are on the alert, and how wise are the questions they put for the solution of older heads.

When a child has lived the first half-dozen or more years of his or her life without seeing a steam engine or a train of cars, how intelligent and reasonable are the questions which arise in his or her small mind; while to the children who cannot remember the time when they did not see them, they frequently bring neither interest nor inquiry. When they for the first time rush past the child who is old enough to marvel over their mechanism, the parent has need to recall that knowledge which was first presented in the form of natural philosophy, away back in the beginning of things, and in those early days seemed like hard, dry facts. How many pleasant things these small questions will bring to our minds—bits of biography from the lives of Stephenson, Watt, and others, to be laid by in store when our little ones shall have gone home, still wondering over the strange things they have seen.

No matter how much of weariness and exhaustion a trip from home may hold for the farmer's wife, there is always so much to enter into it, so many new thoughts, such a variety of changing landscapes, such botanic treasures by the roadside. Even if our going be at a season when Flora's bounties are not spread for our enjoyment, the pretty shaping of a twig may be enough to make a picture in our minds which we shall carry home with us. The glimpses which we may have into the life of other homes may be helpful to us. We may gather new thoughts to take into our daily living, to prevent the all-work of our lives from making our horizon narrow.

To those of us who have not kept our sympathies bounded by the four walls of our homes, there is much of interest in the woman's work which is going on in all our thriving cities. The Society of Christian Endeavor, the Young Women's Christian Association, the Woman's Christian Temperance Union and other organizations are helping to lift the world to a higher plane. Seeing this good work, women with fewer home cares, and better opportunities than ours are doing, should not make us feel that we have neither part nor lot in these things, but in our own far-removed homes we may feel ourselves to be silent partners in all the enterprises which reach out to enrich the world.

Beckwith, Plumas Co.

YOUNG FOLKS' COLUMN.

A Doll's Complaint.

I want to tell you about my troubles. May-be you don't believe that dolls have any; but they do. Real, truly ones, as bad as grown folks, and worse.

Years and years ago, when my mistress, Miss Lettie, was a little girl, I used to have a lovely time, Christmas. She always hung one of my stockings up, and I found such pretty things in it. I had a maid, then, old black Dinah, and silk dresses, bracelets, earrings and a perfectly lovely fan.

Miss Lettie got to be a young lady too soon, and gave me—me, a Paris doll with real hair and eyes that open and shut, to her little brother Ben. He slung me around like a cat—a real, detestable cat—broke my chamber-set, tore my best dresses.

After all, we had a pretty good time, for he took me out coasting with my bonnet on hind side to and my muff on my feet. I looked like a guy. (I learned that word from an English soldier Ben had one Christmas.) That soldier was only a wooden head; but he was stately and tall and did very well for an escort when Benny carried us to ride in his little red wagon. Alas! my soldier was chewed up by Ben's abominable Gordon setter. I detest curs!

When I got my ankle broken, and little master made me a long calico frock, himself, I thought the cup of my misery was full.

But now dear Benny has poked me away in the garret, with rags and old furniture; and here I sit in soiled clothing and turn my beautiful eyes up to the cobwebbed ceiling, days and days. Ah! how the rats run round me nights. One touched me with his cold nose. I shudder to recall it.

No Christmas for me! no fete days at all! I look out upon the children in the streets. Poor, pinched little ones I see down in the back street, and sigh, yes, positively sigh to be hugged to some little girl's warm heart and touched by her sweet lips.

Won't you, please—you who do so much good in the great wide world—tell all the girls and boys who have grown up to give their dolls away to some little child who has none.

It is not too late to make some poverty-pinched one happy with an old, old doll, like me or even Dinah.

A long time ago my Miss Lettie came up in the garret and picked me up, saying: "Poor old dolly! I must dress you all up some day. I didn't know you were such a fright."

How my heart ached! For weeks I lived on that promise; but she never came and I think my heart is broken.

Indeed, I know the sawdust is coming out of my side. I am not so very old and my color is good, only Benny washed my face so much in snow my pink cheeks are gone.

May owners of dolls read this and begin the new year, or even later, by giving their dolls, who suffer, positively suffer for some one to love them, to dear, little, chubby girls. Ah! how I love them. Yours respectfully,

—Portland Transcript.

FANTINE.

Tender to Animals.

The love of St. Francis of Assisi for the brute creation was so remarkable that he stands at the head of the long list of saints who have protected and cared for the dumb creatures that are at the mercy of men.

The holy ones of earth have always shown this tenderness. St. Anthony preached to the fishes; St. Jerome healed a sick lion; St. John the Divine cared for a pet partridge; St. Anselm protected a little hunted hare from the sportman's fury; St. Aventin out of pity put back into the water some fish which had been brought to him. Many other good hermits made friends of the birds. St. Waltheof would do penance for killing an insect; St. Philip Neri reproved a man for treading upon a lizard; St. Bernard loved to free birds from the traps set for them; St. Francis de Sales wept with joy to see some doves share a meal with sparrows.

And so St. Francis of Assisi was not alone in caring for the humbler creatures of God. His gentleness toward them was something wonderful, and those who love him and would be like him, even by walking in the tortuous and troubled ways in which all saints must tread, may do his work on earth. And a good way to set about it is to refrain from ill-treating a dumb beast.

This is the simple and touching way in which he talked to the birds: "My little sisters, the birds, you owe much to God, your Creator, and ought to sing His praise at all times. * * * Beware, my little sisters, of the sin of ingratitude, and study always to praise the Lord."—Rev. Daniel E. Hudson.

A CAT AT MEETING.—In the course of a prayer-meeting in the vestry of a New Bedford church, a pleasant-looking pussy-cat, with tail erect, came in and walked leisurely to a prominent place on the platform. A member of the church took her in his arms and put her outdoors at one side of the building, but in less than two minutes she came in at another door and walked again to the platform with all due gravity and a home-like manner. Then the janitor took Miss Pussy, who was a very tame pet, and allowed any one to handle her as he pleased, and went out with her through a dark

room in which spare settees are piled. He had scarcely closed the door that shut him from the light, when he tumbled over some of the loose furniture, making a racket that caused considerable laughter. Even the pastor could not help wrenching his mouth in marks of parenthesis. The janitor is a persistent man, and he put the cat out and returned in triumph. But his triumph was of short duration, for Pussy soon came in again. Before she got to the platform, a wise lady picked her up and held her to the close of the meeting.—Boston Herald.

GOOD HEALTH.

Health of the State.

The report of the State Board of Health for the month of January has been issued, embracing returns from 68 cities and towns containing a population of 700,850.

The total number of deaths for the month was 992, or a percentage of 1.41 per thousand for the month, or a rate of 16.92 per thousand for the year. The percentage is slightly above the average, the increase being almost entirely due to the diseases affecting respiratory organs.

Consumption claimed 165 victims, an increase of 28 over the previous month. Pneumonia was unusually prevalent and fatal, 103 dying from it. Bronchitis numbered 34 cases. Diphtheria and croup were fatal in 43 cases, while scarlet fever claimed but 1 victim throughout the State for the month.

There were only 3 fatal cases of smallpox in this city and 1 in San Leandro.

Diphtheria seems to have a wide prevalence, but few localities being free from its ravages. The report recommends the most radical precautions against its spread. The following remarks which we condense from the report should be read and observed with care: The impression seems to be very general that the frequency of this disease is in the main dependent upon bad sewerage, defective drains, foul air, and insanitary conditions generally. Although these conditions may render the persons exposed to them more liable to take the disease from the deteriorating influence upon the general health, yet they do not generate diphtheria, nor is the disease capable of spontaneous generation any more than is smallpox or cholera. In order to produce diphtheria you must have the germ of the disease present, and then to be developed it must come in contact with a suitable soil for its growth. From this fact the inference is plain that although prudence requires that the sanitary condition of the patient's surroundings be kept in the best possible condition, and all predisposing causes which might deteriorate the patient's health be removed, it is infinitely more important to insist upon the complete isolation of those attacked, and the rapid destruction by fire of all substances likely to be the conveyances of contagious germs. Diphtheria germs, as far as can be ascertained, are carried in the air, exhaled by the breath, deposited on the clothes, on the walls, everywhere in the room; hence the necessity for the most thorough disinfection of the person and the dwelling before intercourse with well persons is allowed. If more care was exercised in this regard we would hear less of the disease, and many very valuable lives saved that are now sacrificed by criminal carelessness, and the utter disregard for the public welfare.

Starving a Cold.

How it Can be Done Without Inconvenience to the Sufferers.

The man who originated the oft-quoted and unscientific maxim, "Feed a cold and starve a fever," either did not understand what he was writing about, or he has been widely misunderstood, to the great injury of multitudes who have acted on the absurd maxim. Presuming that the author of it was a physician, who knew something of the nature of a cold and the action of remedies, he must have spoken subjunctively, and not imperatively. And then it would read thus: If you stuff a cold the consequence will be that you will be thrown into a fever as the result of the stuffing treatment of the cold, and then you will have to starve the fever. This is a true and sensible interpretation of this commonly received maxim, which has done as much harm as any of the thousand and one of the popular errors which prevail on medical subjects.

It cannot be explained in the manner mentioned, it must be remanded to the dark ages of ignorance and superstition, and classed with lunar and stellar influences over the human body, with or without and other absurdities long since exploded in the progress of true science. Without dwelling on the nature and causes of colds, or on what physicians call the pathology of these disorders, I will say that a low or even starvation diet for a few days, with the free drinking of warm, mildly stimulating teas, is better for a cold than any drug or combination of drugs. If with this a warm bath or a hot foot-bath is taken, little more will be needed. Nine cases in ten of colds can be broken up in this early stage by a hot-foot or rather leg-bath, keeping the bath as hot as it can be borne until perspiration arises. After the bath, drink a half-pint of hot lemonade and go to bed.—Woman's Work.

A NEW ADULTERATION OF COFFEE.—Science seems to be aiding largely in the adulteration of food products when manipulated by unscrupulous hands. Of late, artificial coffee beans have been found in the European (German) markets. They are made from roasted grain-flour with an addition of dextrine or some such body. There are two establishments at Koln which furnish the necessary outfit, with formula, etc., for the manufacture of the beans. According to an original letter from one of these establishments in the possession of Dr. A. Stutzer in Bonn, from 1000 to 1200 pounds of beans may be made in one day with the outfit, which the firm offers at a high price. The letter further predicts a golden future for the article, but advises that it be used for the adulteration of genuine coffee only in such countries where the laws are not very stringent, etc. These prospects must be very enticing to sophisticators, especially as the imitation is so perfect that only a very critical examination will serve to detect the adulteration. The artificial bean distinguishes itself from the genuine in being perfectly symmetrical and of the same size, and that the epidermal membrane is entirely wanting.

DOMESTIC ECONOMY

Cooking Dried Fruits.

The popular prejudice which exists against dried apples is not without foundation in reason. The leathery, flavorless compound which appeared formerly on our tables in apple sauce or apple pie, its worst elements concealed by flavoring of lemon, had no excuse for existence. The method which secured such a dish as this must have been invented by some old-country maid who was anxious to take a short cut around the right method. Like most rapid ways of cooking, this method has too frequently superseded the proper way of cooking dried fruit. Prunes are barely eatable cooked rapidly, but delicious by the old method. The modern evaporated apple bears rapid treatment a little better than the old-time dried apple; but it is better cooked by the slow old way. Apricots, which are now brought from California, dried by evaporation, are especially delicious, and are quite inexpensive, retailing considerably cheaper than peaches. Peaches are delicious for pies or puddings, or for preserves, cooked slowly. Wash the dried or evaporated fruit carefully and put it in soak over night in a covered porcelain dish. In the morning set the fruit in a broad, shallow, earthen pudding-dish or preserving kettle at the back of the stove; let it rise slowly to the boiling point; there should be just water enough to almost cover them. Let them cook in this way for six or eight hours, then add sugar—about half a cupful to half a pound is enough for apricots or for peaches. Tart apples need more. Let the dried fruit cook about half an hour after adding the sugar. Then remove it from the fire, pour in an earthen dish to cool, and if prunes, peaches, or apricots, serve with cream.—New York Tribune.

AN ORANGE BAVARIAN CREAM.—Grate the outside rind of three oranges and half a lemon in a bowl, being careful not to grate deep enough to take away any of the white inside rind. Squeeze into the same bowl the juice of six oranges and half a lemon. Take one-third of a box of gelatine which has been soaked for two hours in $\frac{1}{2}$ cup of cold water, and pour over it half a cup of boiling water; stir till the gelatine is all dissolved, then pour it into the bowl with the orange and lemon juice. Add a large cup of sugar and stir over the fire till melted; then remove the saucepan from the fire, and strain its contents into a bright tin pail or basin, and set it in a pan of ice and salt. Stir continually till the mixture begins to thicken at the bottom. When it is thickened, but not hard enough to break into pieces of jelly when stirred, add gradually two quarts of whipped cream (measured after whipping). Stir the cream constantly while pouring in the gelatine, and when it is all added, whip it up thoroughly and pour into a mold to form. This cream is very pretty formed in a circular mold with a high peak of bright yellow orange jelly in the center. Surround it with whipped cream decorated with sliced lobes of oranges.

CORN CAKES.—Two cups of buttermilk, a half-teaspoon of salt, half-teaspoon of soda (unless the buttermilk should be quite sour, in which case add a little more); stir in two handfuls of cornmeal, making a very thin batter; grease your pan well, pour in the batter, and bake it until it ceases to boil and gets nicely browned.

LEMON CREAM.—Boil the thin peel of two lemons in one pint of cream, strain and thicken with the well-beaten yolks of three and the whites of four eggs, into which half a teaspoon of white sugar has been beaten. Add half a teaspoon of salt, stir rapidly with the egg beater until nearly cold, and pour it into glasses or cups. This quantity will fill six good-sized cups.

BLACK CAKE.—Two cups of brown sugar, $1\frac{1}{2}$ cups of butter, six eggs, beaten separately, three cups of flour (brown the flour), two table-spoonfuls of molasses, one of cinnamon, one teaspoonful of mace, one of cloves, two cups of sweet milk, two pounds of raisins, two of currants, half pound of citron, one teaspoonful of soda, two of cream of tartar. Bake three hours,



A. T. DEWEY.

W. B. EWER.

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(NEW THIS ISSUE.)

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Agricultural Implements—Bull & Grant Farm Imp't Co.
Galvanized Hexagonal Netting—Geo. B. Bayley.
Windmills—R. E. Wilson, Stockton.
Nurseryman Wanted—R. E. Farrington, Phoenix, A. T.
Rupture and Piles—Drs. Porterfield & Losey.
Poultry—W. G. Ellis, Oakland.
Sugar Mills—James Lufthor.
Seeds—Westcott & Breck.
Devon Cattle—Rumsey Bros., Emporia, Kan.
Fruit Trees—J. S. Collins, Moorestown, N. J.

See Advertising Columns.

The Week.

The southern counties are now pushing their splendid orange crop upon the market vigorously. There will be a larger amount of produce than ever before, and it is noted in San Francisco that the quality of the oranges sent here averages much higher than heretofore. Such improvement may be expected to continue, for each year, new trees of improved varieties are coming into bearing; old neglected orchards near the larger towns are being swept away by the house-builders and the scale-bugs. One southern authority estimates that there will be a trainload of oranges sent eastward daily for the next three months. The California orange is winning wider favor each year and is certainly one of our most promising fruits.

The coming event of March 4th casts its shadow before. The incoming President, Gen. Harrison, has reached Washington; the telegraph has brought descriptions of the dresses which Mrs. Harrison and her attendant ladies will wear. President and Mrs. Cleveland have invited their successors to dinner and promise to have their trunks packed to move out in time. The country has everything all set for the inauguration and need but await the coming of next Monday to enjoy the event.

The Season.

The engrossing topic for the last month has been the character of the season. After two years of very moderate rainfall the opening of the present crop-year, with unusually full fall rains, led people to think that a change was to be experienced, and that an old-fashioned year with copious rains, early and free growth of feed and grain, was to be given to California. After such a beginning a long dry spell, although it actually accomplished no great harm, was quite a disappointment, and the mind, always prone to rush from one extreme to the other, quickly passed from exultation to apprehension.

From all our advices from the country and such observations as we were able to secure by hurried trips into parts of the interior, it did not appear that crops were actually suffering, although growth was considerably less than expectation had painted it. The grain, however, seemed to be rooting well, and generally showed a color indicative of strength and vigor. Most soils were plowing well and there was plenty of confidence in the country—more perhaps than in the city, where considerable noise was made about drouth by those who are prone to croak, and by others who desired to elevate the price of something they held in store.

This was about the state of the case when the rain began falling on Saturday afternoon, Feb. 23d. The rain was welcome and was hailed as the dissolution of the doubts which had prevailed. The storm was not as great as was expected, though in some parts of the State, especially at the South, it yielded quite a respectable amount of water. The following table gives the rainfall for the storm and season at various points, the data being selected from reports furnished by the weather bureau of the Southern Pacific railway:

Localities.	Twenty-four hours.	Season's total.	Last season to date.
San Francisco.....	.54	12.96	12.96
Niles.....	.10	7.27	8.32
Martinez.....	.75	8.22	8.97
Antioch.....	.16	6.65	7.07
Pleasanton.....	.05	8.70	8.22
Newman.....	.54	6.54	.....
Stockton.....	.02	6.80	6.98
Brighton.....	.02	8.75	8.26
Sacramento.....	.22	9.65	7.43
Rocklin.....	.03	6.84	8.53
Auburn.....	.52	12.92	16.71
Colfax.....	.90	14.60	21.75
Shingle Springs.....	.25	11.75	.....
Placerville.....	.35	14.45	.....
Glen Ellen.....	.70	14.50	.....
Santa Rosa.....	.35	11.59	.....
Napa.....	.98	10.60	11.73
Calistoga.....	.32	15.02	16.48
Suisun.....	.85	10.41	9.61
Vacaville.....	.62	13.75	13.68
Winters.....	.60	16.50	14.39
Woodland.....	.85	11.65	9.17
Williams.....	.50	8.15	4.91
Willows.....	.68	7.24	9.77
Marysville.....	.35	10.80	10.54
Chico.....	.34	11.36	9.68
Red Bluff.....	.20	13.44	10.57
Redding.....	.44	7.42	.....
Modesto.....	.18	5.07	4.21
Merced.....	.13	5.62	4.22
Fresno.....	.15	4.12	3.05
Porterville.....	.18	5.23	.....
Hanford.....	.19	4.30	4.00
Lemoore.....	.04	3.40	3.68
Tulare.....	.19	4.30	4.00
Turner.....	.20	2.63	3.68
San Fernando.....	.63	9.23	.....
Los Angeles.....	.85	12.75	8.99
S. adra.....	.04	7.32	.....
Colton.....	.76	7.31	.....
Anaheim.....	.76	9.10	10.76
Santa Monica.....	.85	13.20	11.39
Santa Barbara.....	.12	13.06	15.66
Los Gatos.....	.33	11.01	.....
Felton.....	.14	22.28	.....
San Mateo.....	.09	11.15	10.93
San Jose.....	.16	8.42	8.04
Gilroy.....	.50	7.56	12.02
Hollister.....	.30	6.15	6.10
Santa Cruz.....	.15	13.97	16.14
Monterey.....	.11	6.92	8.45
Salinas.....	.35	6.83	8.58
Solead.....	.09	8.45	5.30
San Miguel.....	.37	6.02	8.47
Paso Robles.....	.31	8.63	9.32
Templeton.....	.38	9.66	11.14

A study of this table shows that this year's rainfall is not on the average greater than last year; that though slightly greater in some parts, it is slightly less in others. Last year the rainfall was notably short and the output of some counties was reduced below a normal amount. Thus far there does not seem to be a much better outlook for the present year, and the rains of last week, grateful as they were, do not put the situation out of the region of uncertainties. The future will decide the question. Nothing is now suffering; on the other hand, everything so far as we know is in a promising condition and will endure for some time without injury, but the making of a crop depends upon the rains of March and April. If they are adequate, we have the chance of a year of unusually large production. If we should have but scant showers, the result would be another year of partial returns. It becomes the wise to adopt a conservative course until the clouds declare definitely their intentions.

Jottings in Sutter County.

A recent visit to the farms along the west bank of Feather river, in Sutter county, gave us much pleasure because of the indications of prosperity and promise which were discernible on every hand. In our riding about in the district we had the advantage of the company of such well-informed and progressive citizens as R. C. Kells, H. P. Stabler, George Ohleyer, B. F. Walton and Joseph Phillips, and were thus enabled to use both eyes and ears to advantage in informing ourselves on the past, present and future of the country.

For beauty of situation and environment it would be hard to find a spot in California more calculated to attract the visitor or satisfy the resident than the rich plain which constitutes a great part of the area of Sutter county. The land lies splendidly for cultivation by the aid of the speediest and most effective machinery, and the chance for monotony by the prevalence of grades which depart but slightly from the level is wholly removed by the presence of river, hill and mountain which are adjacent. The snow-capped Sierra, the ruddy foothills, the blue Coast Range, are all within easy seeing, and these features of the landscape which are common to most valley situations are here but the setting for that most magnificent piece of nature's landscape gardening, the Marysville Buttes. Prof. Hilgard describes the Buttes as a ragged volcanic mass appearing in mid-valley and forming a prominent landmark on the plain. The Buttes with their foothills occupy an area of about four miles by eight, and the bare disrupted rocks and precipices of the central masses contrast oddly with the fertile plains around. The highest point of the Marysville Buttes, as determined by Prof. Davidson, is 2112 feet above sea-level. This data, however, though of interest, conveys no idea of the distinctive beauty of the Buttes as a feature of the landscape. Their sharp uprising the variety of outline in the pinnacles which they uplift, the play of colors on their rocky sides from sunrise to sunset, the dashing of storm-clouds against their sides, the royal supremacy of their crests over drifting fogs, and their occasional capture by the snow king, all would endear the Buttes to us as they no doubt do to the nature-lovers among the residents. If we were building in the neighborhood we should give the architect a puzzle in requiring him to open every window upon the Buttes, and we should add several dollars to the acre for lands from which the best views of the masses were attainable.

One cannot go abroad in the district which we have named without getting evidence that the spirit of enterprise and progress is at work. Those who have known the country need not be told that this spirit has sprung up with new vigor since the lands have been brought out from under the immediate shadow of the debris evil. The river-bottom is of course a scene of desolation and the vestiges of early settlement nearly buried beneath the rubbish sent down by the miners, but the rich plains are rescued by magnificent levees, and the law and the courts now stand as protectors of the beautiful valley from further encroachment. The dark days are past, and the residents are proceeding to improve and develop their properties which they have practically re-purchased by the cost of leveeing and the expense of prolonged contention for justice between conflicting industrial interests.

The very short time we could give to our visit prevented us from seeing more of Yuba county than could be gained from an early morning stroll through Marysville. We could see, however, the new life of the surrounding country reflected in the prosperity and progress of the market town. Most satisfactory improvements are now being made in Marysville. The streets by their firm road-beds and stone sidewalks, as well as by the size and style of the newer buildings, are assuming a metropolitan aspect. One of the structures now in construction we had the pleasure of examining. It is to be occupied by White, Cooley & Cutts with a large stock of implements and hardware, and by the Sutter County Fruit Co. to accommodate their rapidly growing trade in fruit products and supplies for fruit-growers. Other important structures we should have doubtless discovered had our time permitted. We had a pleasant chat with W. A. Lawson, editor of the Marysville Appeal. His zeal and

intelligence in industrial matters are proving of great value to the region.

Crossing the Feather river to Yuba City, we found signs of activity and progress everywhere. Many public and private buildings are being constructed. A new railway is now being rapidly extended southward. It is an extension of the Marysville & Oroville road, and is apparently being constructed in a most substantial manner, and of the best materials, and will be of immense value in bringing the products and travel of the upper valley and foothills directly to tide-water. Being adjacent to the great area of young and old orchards south of Yuba City, the new road is regarded with deep interest by the fruit-growers. Among the other institutions of Yuba City which we had the pleasure of visiting was the cannery, which, under the superintendence of J. J. Pratt, is winning such an excellent reputation for fine products. We found the buildings well planned and fitted up. A spur from the new road will enter the cannery grounds and a new warehouse will be built before another season's pack is ready for storage.

Of the orchards visited, space will not permit us to speak at length at this time. We have hope of visiting the region again during the fruit season. We can, however, assure any one who wishes to see a fine area of young orchard, thrifty and well cared for, that he should seek the country around Yuba City. Very low heading is practiced, and how trees can branch almost at the ground and still be shapely and easy of access by the plow and cultivator can be shown by acres of object lessons. Among the places visited were the large tract being planted for Mrs. Parks, to which allusion is made in our agricultural notes this week; the orchards of S. J. and H. P. Stabler, and the place of B. G. Stabler adjoining; the well-kept home of J. P. Onstott, who is making a profitable specialty of the Thompson seedless grape; the large and well-equipped farm of B. F. Walton, who farms for fruit and grain and dairy products, and has one of the largest and best establishments in the neighborhood; and the home place of the late esteemed Dr. S. R. Chandler, now in the hands of R. C. Kells, and being operated for fruit and fine stock, including horses and thoroughbred Holsteins. Thence we went southward, pausing for a few moments' chat with Squire Hull, and stopped for dinner under the hospitable roof at the famous Abbott & Phillips orchard, where we found the pioneer fruit-grower, Mr. Joseph Phillips, full of information and enthusiasm in the fruit interest, and with 416 acres of fruit to keep him out of mischief. Turning northward, we stopped a few moments at the Hock farm, the old country seat of Gen. Sutter, where we were very sorry to see that an inroad of hogs had girdled the grand old fig orchard, leaving scarcely a single tree to remind the future visitor of the beauty of the old grove beneath which thousands have been wont to gather on festive occasions. From the Hock farm we continued our ride toward Yuba City, passing many farms, among them the young orchard and new residence of Mr. Haus, which had a very neat and thrifty air. Near by was the new orchard of J. T. Bogue, well known to our fruit-growers. At the old Briggs place we saw a vast amount of improvement going on by the present owners, A. Lusk & Co. Crossing the levee, we traversed the famous old orchard, a sorry sight with its shroud of debris drawn closely about it. Efforts at reclamation by planting young trees where the debris layer is thinnest, are now in progress.

An organization which is doing much good work in the district is the Sutter County Horticultural Society. We had the pleasure of attending a meeting at which the subject of entomology in the public schools was under discussion. We are glad to note the general interest of the farmers in the introduction of this study as provided by law, and that the teachers of the county, many of whom were present, though protesting their lack of knowledge of the study, were well disposed to do the best they could in teaching it. In fact the introduction of entomology seemed to give a few conservative farmers more perplexity than it did the teachers themselves. The Sutter county superintendent, Dr. Lyman, and the teachers of the county, have, so far as we know, taken a more earnest hold upon the new topic than have the instructors of other counties. Their example is worthy of emulation.

The Government Irrigation Work.

Much interest naturally pertains to the proposed Government work for the irrigation of the arid regions. It is reported that the senators and representatives are besieged with letters of inquiry on the subject, which it is a great burden for them to answer. In order to anticipate such correspondence, Senator Stewart the other day furnished the following statement, which was telegraphed for publication on this coast:

For the purpose of investigating the extent to which the arid region of the United States can be redeemed by irrigation and the segregation of the irrigable lands in such arid region, and for the selection of sites for reservoirs and other hydraulic works necessary for the storage and utilization of water for irrigation, and the prevention of floods and overflows, and to make the necessary maps, including the pay of employees in the field and in the office, the cost of all instruments, apparatus and materials and all other necessary expenses connected therewith, the work to be performed by the Geological Survey, under the direction of the Secretary of the Interior, the sum of \$100,000, or so much thereof as may be necessary, and all lands which may hereafter be designated or selected by such surveys for sites, for reservoirs, ditches or canals for irrigation purposes, and all lands made susceptible of irrigation by such reservoirs, ditches or canals are from this time henceforth hereby reserved from sale as the property of the United States, and shall not be subject, after the passage of this Act, to entry, settlement or occupation until further provided by law; provided that the President may at any time in his discretion, by proclamation, open any portion or all of the lands reserved by this provision to settlement under the homestead laws.

As the bill passed the Senate, the reservation only extended to reservoir sites and rights of way for ditches and canals, but the bill was amended in the House so as to extend the reservation to all lands to be irrigated by the proposed hydraulic works. It will be observed that no title can now be acquired to either reservoir sites, rights of way for ditches or canals, or the lands susceptible of irrigation thereby unless the President shall open such lands to homestead settlement. It was not intended by the Senate to reserve anything but the reservoir sites and rights of way for ditches and canals, and this reservation ought to have been made years ago. The reservation of other lands by the amendment in the House is held by some to be wrong, but it seems to us that it is right to hold the lands to be benefited by public money for future disposition; otherwise the Government work is merely to benefit individual property.

For the purpose of proper legislation for a system of irrigation and disposition of irrigated lands, a select committee, consisting of Senators Stewart, Allison, Plumb, Hancock, Gorman, Reagan and Jones of Arkansas, has been appointed to visit the arid regions and report in December next the necessary legislation. An appropriation of \$250,000 has been made at this session of Congress to continue the explorations and surveys provided for in the law above quoted.

EXPERIENCE WITH THE OLIVE.—Col. Geo. F. Hooper of Sonoma, whose success in olive-growing and oil-making has proved so notable, was a welcome caller at the RURAL office a few days since. In his experiments at "Sobre Vista," the Colonel informs us that he has disposed of the black scale pretty effectually by keeping his olive trees properly pruned, and spraying them with a whale-oil soap and sulphur wash, at 120° to 128° Fahr., once in February or March and again in July or August. He follows this up in October or November with a soda solution, applied warm; and this, in connection with the subsequent rains, cleanses the trees. He tries to manage this treatment so as not to interfere with the buds. While he has high hopes for the future of the olive in Central California, he is not too sanguine nor impatient to bide his time, but has that faith in the industry which can await a normal and healthy development.

COCOANUT OIL.—Mr. John I. Tay of 729 Eleventh street, Oakland, brings us a very fine sample of cocoanut oil which he manufactured by a process he worked out himself during a recent visit in the South sea islands. The oil is a beautiful product, and Mr. Tay says it is excellent for culinary purposes, being a pure vegetable oil and possessed of a flavor which is very acceptable. It would seem that so pure and clear a product should commend itself commercially.

A Barn Plan for Hillside.

Mr. G. C. Pearson, an old Californian, who is now in exile in Illinois, finds some comfort in reading the RURAL PRESS as a reminder of his sojourn in this delightful clime, and noticed not long ago that another reader called for suggestions on the planning and construction of barns. As Mr. Pearson has recently built a barn in Danville, Illinois, he sent us sketches, from which the engravings on this page were prepared.

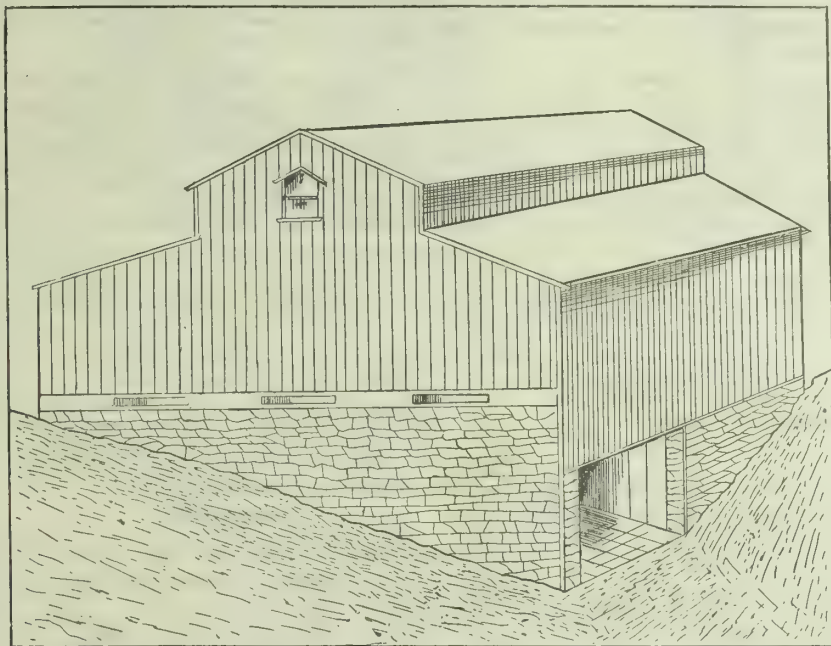
As appears in the pictures, the stable department of the structure is partly underground, the main entrance shown in the perspective opening to what is marked "main passage-way" in the ground plan. The basement is surrounded by a stone wall inside of a concrete wall. The thickness of both at the bottom is four feet, because of the existence of quicksand at the foundation. The wall narrows to 18 inches at the surface of the ground. The stone wall averages 13 feet in height, leaving the basement story 11 feet in the clear. In the basement are the

of which was set upon the stone basement. This studding gives strength and stiffens the building for carrying the shop-room above and the roof.

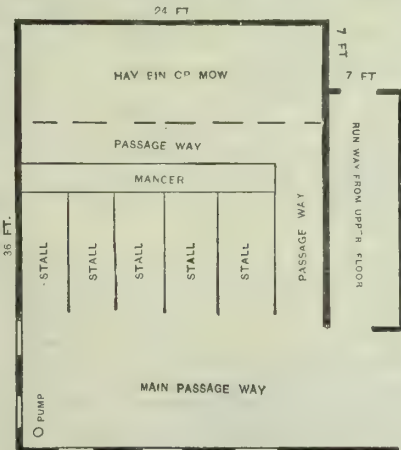
The perspective view shows the building at its highest point where the roof is 36 feet from the basement entrance. The opposite side is toward the house and lawn, and on that side there is but 22 feet elevation to be seen from the driveway. By this lay of the land, the barn having practically a great height, has its low side in view and is not as conspicuous as it would be if built on level ground. Mr. Pearson writes that he finds the barn to unite capacity and convenience with comfort of animals. The structure as shown is of course very plain and inexpensive; ornamentation may be added to suit the taste of the builder.

Viticultural Commission Approved.

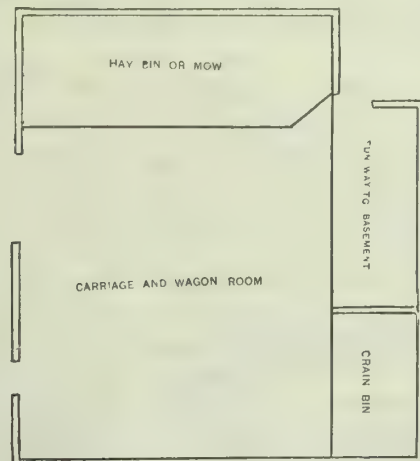
A meeting of grape-growers was held in this city Feb. 23d, which was largely attended.



DESIGN FOR BARN WITH ONE STORY AND BASEMENT.



BASEMENT PLAN.



FIRST FLOOR OF BARN.

stalls, which are deep and fitted so that putting up a bar behind makes the tying of the animals unnecessary—in fact they are really box stalls. The stalls face the hay-mow, and between the two is a passage-way three feet wide, which gives entrance and air. The stalls have chutes from the upper floor which carry down the hay and keep the eyes and coats of the animals free from seed and dust. There are also grain sprouts from the granary above, arranged to cut off as desired. The front parts of the stalls are dirt floored, the back parts planked. The mangers are placed as shown in the sketch.

A prominent feature in the design is the capacious hay storage which rises from the basement to the roof as marked in the plans. This mow is located in the east end of the barn where the surface ground is level and highest. The mow will hold eight tons of loose hay and is mostly filled by throwing the hay into the doors above. It falls and packs well until the level of the doors is reached, and the top is then filled by forking and mowing away above the inlet doors.

The first floor of the barn outside of the hay-mow is devoted to carriage room and granary. It is inclosed with rustic put on vertically, and held in place by studding, a light framework

After a full discussion of matters involved, the following resolutions were adopted:

Resolved, That, in the judgment of this association, no more fitting work could be undertaken in our behalf and in that of the vineyardists of this State which would conform strictly to the law than the establishment of the Wine Exchange and the employment of the lecturer, Miss Field, and other lecturers if necessary; and be it further

Resolved, That this association heartily recommends that the Legislature of the State not only continue the appropriation for the support of the Viticultural Commission, but also to add to the same sufficient to enable the commission to properly carry on the work just inaugurated.

The Pure-Milk Law.

The measure to fix a standard of pure milk for sale in California passed the Senate on Monday of this week. Whether it will go further at this late day in the session remains to be seen. The following is the full text of the bill as it passed the Senate:

An Act to prevent deception in the sale of dairy products and to preserve the public health. The bill as passed is as follows:

SECTION 1. The following standard is hereby established for pure and wholesome milk sold for domestic purposes, and for the use of infants and the sick and infirm, within the limits of the State of California: Specific gravity, 1.080 per cent; ash, .70 per cent; solids, not fats, 9 per cent; fat, 2.50 per cent; total solids, 11.50 per cent; water, 88.50 per

cent. And any milk sold or offered for sale as provided, which falls below this standard, is declared to be adulterated, impure, and unwholesome; and any person selling or offering for sale such adulterated, impure and unwholesome milk shall be guilty of a misdemeanor, and shall be punished for each offense by a fine of not less than twenty-five dollars nor more than two hundred dollars; or by imprisonment in the county jail for a term not less than one month nor more than three months or by both such fine and imprisonment.

SEC. 2. The Boards of Supervisors of counties and cities and counties, and the city or town Councils or other legislative bodies of all municipal corporations within the limits of this State, are hereby authorized, by ordinance, to provide for the analysis of milk sold within the limits of any county, or city and county, or of any municipal corporation in this State; and to provide also for the prosecution and punishment of all persons selling or offering to sell milk which, upon analysis as above provided, shall be found to be adulterated, impure and unwholesome.

SEC. 3. This Act shall take effect and be in force from and after its passage.

QUERIES AND REPLIES.

Bean-Growing.

EDITORS PRESS:—Mr. J. Pattison of Samson valley, San Diego county, wishes to get some information about growing beans.

As he is over 2000 feet above sea level, and 25 miles inland from the ocean, our mode of bean-growing may not exactly suit him.

We raise mostly the Lima bean, but nearly all kinds of beans grow well here near the coast.

We never use poles here for any kind of beans. Let them grow just as big and long vines as they wish and run where they please. We seldom find land too rich for beans, although they will grow on almost any of our soil, on hillside or in valley.

The soil must be well plowed and thoroughly tilled. The planting season is from March to June, but most of the planting is done in April and May. No irrigation is used.

Lima beans are planted mostly in rows, about four feet apart, two to four beans being dropped in places, 18 inches to three feet apart. Planting is mostly done with a planter, one or more rows at a time. They are cultivated well, until the beans begin to cover the ground enough to be in the way. Then, if weeds appear, they are pulled out or cut with the hoe.

Small white beans and the Mexican varieties are planted closer together and cultivated in same manner as Lima beans.

When the beans are mostly ripe they are cut or pulled, put in small piles, until dry enough to thrash.

Some thrash with a machine, others tramp them out with horses and wagons or disk harrows. The steam thrasher does the work more quickly, but has the fault of cracking and breaking the beans more or less.

Many carloads of Lima beans are grown here and beans have been the largest crop grown here for several years past.—O. N. CADWELL, Carpinteria, Santa Barbara Co.

The Cactus Hedge.

EDITORS PRESS:—I would like to obtain some information on growing cactus-hedge fence. It is being highly recommended by agents, who claim that after it is once introduced it will prove to be superior to any other fence known. Will it be likely to spread? How high will it grow? Will frost injure it and will it grow from the seed? A great many hereabouts are quite interested as to whether it is what is said for it or probably only a fraud or nuisance. Any information on the matter will be gladly accepted. Please answer through the columns of your valuable paper, of which I am an old subscriber.—WM. HAWES, Anderson, Shasta Co., Cal.

[We are aware that there has been something known as the "cactus-hedge" proposition in the air, and worked by agents for some time in different parts of the State. We have, however, no definite information upon which either to approve or condemn it. Probably some of our readers who have been approached on the subject, and possibly have planted such a hedge, can write us their experience and judgment of it. It will be a very safe proposition to go slow on it until more can be learned than is told by soliciting agents.—EDS. PRESS.]

Acknowledgments from an Inquirer.

EDITORS PRESS:—Will you have the kindness to allow me, through the medium of your valuable paper, to express my most sincere thanks to "G." of Vacaville for his courtesy and trouble in explaining to me, in such a very concise manner, the mode of handling peaches. I am sure many others must also feel deeply indebted to "G." for the valuable information he has so graciously imparted. GROWER.

San Jacinto, Feb 17, 1889.

PREVAILING ignorance on entomological subjects is startling. Even the *Wasp*, which we suppose claims to be a journal of intelligence, is permitting its artists to go abroad perpetrating wasps with two wings on its advertising signboards. And yet we have no State Entomologist.

Ask your friends who are not taking this paper to send for a sample copy.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

CARP AND TROUT.—Haywards Journal, Feb. 23: Otis Hill of San Lorenzo has a little paradise. We dropped in to see him Tuesday. Here are raised the earliest cherries, this spot being protected against wind by a chain of hills that extend along the foothills for several miles. We found oranges growing to perfection. Two varieties, the Mediterranean Sweet and St. Michael, were very tempting. But the great attraction was hidden under a monster willow tree—a large pond in which were thousands of carp. Throwing some bread on the water, Mr. Hill coaxed them to the surface, and the pond was fairly alive with them. Several were over two feet long, but the average size was about a foot and a half. He next invited us to see his speckled beauties, kept in a good-sized box at the head of a magnificent flow of water that issues out of the hillside. The water is clear as crystal, and the trout wild and healthful. They have been here four or five years. In answer to the question whether any fish are stolen, the owner replied that that is one of the greatest obstacles to the success of his carp-raising. He has lost a good number. Mr. Hill will excavate a more extensive breeding-place for the trout, adjoining the carp-pond, that will be 200 feet long and six feet deep. The stream has flowed out of the hillside since 1859, and is too valuable to be allowed to go to waste. He has just the spot for an extensive hatchery, the water being unequalled for the raising of carp and trout.

THE FIRST GREEN PEAS.—Manuel Marshall, who rents a portion of H. V. Momen's farm, once more takes the medal for shipping the first green peas to market, Wednesday, amounting to 300 pounds.

SUGAR AND WATER.—Among the few holders of property along the Alameda creek who are contesting the condemnation suits of the Spring Valley Water Co., which seeks to divert the water of the creek for the use of the S. F. public, is the Pacific Coast Sugar Co. The latter claims that for the past 19 years it has been engaged in manufacturing sugar from beets, having its plant at Alvarado, on the banks of the creek. The factory, with machinery, etc., is valued at \$250,000. The company has taken from the creek for the use of the factory a volume of water equal to about 200 miner's inches. The use of the same is absolutely necessary for manufacturing, and without it the factory would necessarily be abandoned, unless other water should be obtained at a great expense. No other can be obtained for the use of the factory so as to be profitable unless by the sinking of artesian wells, which would be experimental and problematical, with the chances largely against success. The present is the time for making contracts for the purchase of the present crop of beets, the crushing of which, if not prevented by the water company, will commence about Aug. 15, 1889, and about Feb. 15, 1890. If the beets are not purchased now, the run and operations of the factory will, for the present year, be lost, damaging the company to the extent of \$75,000. If the company does not purchase and contract for the stock, and is prevented by the pending action from crushing the same, the damage to the company will be enormous. If the water from the creek shall be diverted by the S. F. corporation, the company will sustain damages in the sum of \$325,000, which sum it asks as damages.

Butte.

AN ARTESIAN STRIKE.—Oroville Register: D. K. Perkins has been sinking an artesian well at Palermo that at a depth of 400 feet struck a stream which forced the water in the well up to within four feet of the top. The lower part of the well had no casing in, and Mr. Perkins believes that when this is in the water will flow over the top of the well. He did not stop at that depth, however, but kept on sinking.

LAWLESS TRAMPS.—Chico, Feb. 15: Last evening about 20 tramps arrived in Chico from the North and barricaded themselves in a barn, saying that they proposed running the town. The officers swore in a number of citizens as deputies and started in to arrest the gang, who resisted with clubs and stones. The officers pulled their revolvers and began firing on the tramps, who started to run. One, who gave his name as Dick Thompson, from Greeley, Col., was shot in the leg, and a number of others were severely handled by the officers before surrendering. The officers were hit by rocks, but not hurt much. The entire gang was jailed.

Colusa.

A CANNERY.—Sun: The Colusa Canning Co. has been organized, with a capital stock of \$30,000, and a sufficient amount of stock subscribed to insure its success. We have around here some of the finest orchard land in the world. Within a radius of 9 miles we have now some 1200 acres planted to fruit trees. With a cannery established, we will have planted, in the next two years, more than 5000 acres in the same radius, which will in a few years give employment to a great many men, women and children.

Fresno.

FANCY BUTCHERING.—Fresno Expositor: There are on exhibition in front of Furnish & Mickle's meat market the carcasses of four

dressed sheep, very artistically cut and scored on the back. On one is a portrait of George Washington on horseback. The features of the "Father of his Country" are excellent, while the horse's tail is done up in a Grecian knot. Beneath this is the square and compass of Masonry and the three links of Old Fellowship. Two of the carcasses are ornamented alike. They present the eagle, shield, ordnance, flag and star—in fact, the complete badge of the G. A. R. Beneath the insignia of the society is a handsomely cut wreath in the center of which are the letters "G. A. R." The proportions of the wreath are perfect, while the lettering is equally praiseworthy. On the fourth carcass is a representative of the defunct Fresno baseball club in the act of catching a ball. He has been in the position since yesterday, yet the ball hasn't reached his outstretched hands. The fingers are true to nature, and seldom in photograph or painting are they more realistically portrayed. The cutting and scoring was done by A. C. Blanchard. The fineness of the work is astonishing and attracts a great deal of attention. The carcasses will be photographed before being cut up. [By the courtesy of Bro. Ferguson of the Expositor, we have seen a photograph of the above-noticed mutton. The man who can achieve so delicate effects in a line so little given to esthetics, should cultivate his rare artistic talents.—EDS. PRESS.]

Lassen.

BLACKLEG ON MADEIRA PLAINS.—Alturas New Era, Feb. 22: J. T. Booth is feeding several hundred head of beef cattle, belonging to Mat Healey, on the Bergetrom ranch, South Fork. Healey has recently turned a large number of beaver back upon the range. Mr. Booth reports the death of several calves and yearlings from "blackleg." He says the disease kills the young, but does not seriously affect old stock. It usually attacks the calves in one of the legs, which becomes black and jelly-like; when the calf attempts to walk the foot of the diseased leg turns under and backward. The calf walks around but little. Death ends its sufferings within a few days. A number of cattlemen in Modoc are losing stock from the effects of the same disease.

Monterey.

HORSES SOLD.—Salinas Democrat, Feb. 23: Last Saturday James Storm sold seven head of fine horses, all of his own breeding, to the Overland Transfer Co. of S. F. for \$1975, or an average of \$282 each. Three of the number were Norman draft horses, four and seven years old; they brought \$825. Two were sorrel driving horses (the span that Mr. Storm generally drove himself); they were four and eight years old and brought \$700. The remaining two were draft horses, four years old, and brought \$450. Mr. Storm considers the breeding of horses profitable, if properly managed. There is a ready market for all the good horses raised.

Napa.

ANTICIPATING THE FAIR.—Napa Register: A. H. Conkling, Sec'y of Napa Agricultural Society, has received a letter from F. H. Burke of La Siesta ranch, Menlo Park, which shows that leading stockmen of the State are preparing to participate in our next fair. Says Mr. Burke: "I desire to make application now for stalls for my herd of Holstein cattle (winners of nearly all bull prizes and sweepstakes in California and Nevada); also for stalls for Polled Angus cattle and for Herefords. I shall require 24 stalls in all, with privilege of cooking for my own men in front of stalls, same as allowed at all county fairs and State Fair."

Sacramento.

RECLAMATION ON GRAND ISLAND.—Record-Union, Feb. 15: Since 1880 nothing has been done on Grand Island in the way of reclamation, owing to difficulties in collecting back taxes. The resident farmers have for years expressed themselves as willing to keep their levees up to any required standard at their own expense, if Williams & Bixler of S. F. would do likewise on their own lands. This body of land, comprising nearly 16,000 acres within the levees, lies between Steamboat slough and Old river, commencing just below Courtland and running nearly to Rio Vista. It already has a good levee on more than half its frontage, and only requires strengthening along the lower part of Steamboat slough, the cross levee and up Old river a short distance. With a substantial levee, for which there is plenty of the best material on hand, it would be one of the most valuable bodies of land in the State for fruit, dairy, grain or vegetables, and add materially to the wealth of Sacramento county. A meeting of all the land-owners was held at Mr. Hall's residence, and the result was that every land-owner having frontage on the river has signed an agreement to build his levee to the required height, giving it a slope of three feet to one on the inside, and where the most dangerous points are (on Williams & Bixler's lands), the levee is to be two feet higher than the flood of 1881, from Beaver slough down and up Old river. The work is to be finished by October 1, 1889, and will be done with dredgers and scrapers. J. W. Ferris, of Stockton, is to do the work on Williams & Bixler's land, and it is rumored that for compensation he is to get one-half the firm's interest on the island—some 5000 acres. Surveys have already been made, and the work may be said to have commenced. In addition to the levee being constructed, arrangements have also been made for drainage, so that the coming year of

1890 may find the greater portion of this fertile tract in cultivation.

San Diego.

BARLEY AND OLIVES AT FALL BROOK.—Union, Feb. 14: A. M. Peters, owner of the John Mitchell Farm, two miles from Fall Brook, from less than 100 trees bearing this season has about \$300 worth of olives, part of which have gone to Frank Kimball's olive-mill at National City. In addition to the olives, he has sold \$200 worth of cuttings from the same trees. These trees have just begun bearing well, the orchard not having had good care heretofore, and having suffered from rabbit depredations during its infancy. Fall Brook will have hundreds of these trees in bearing in a few years. Mr. Saxey reports a general yield of 20 sacks of barley per acre on his 80-acre farm, three miles south of town. As good land as his, adjoining his place, can be had at from \$25 to \$45 an acre.

SPRING FLOWERS.—San Diego Sun, Feb. 12: The orange-yellow poppies are blooming in the canyons about the city and will soon appear on the mesas and hillsides. Wild violets and forget-me-nots, spring beauties and buttercups, the pink blossom of the mazzanita and the white flower of the coffee bean have all made their appearance in riotous luxuriance on the highlands. By another month the hills and valleys will be gorgeous with color.

San Joaquin.

BUHACH, ETC.—Stockton Independent, Feb. 22: Articles of incorporation were filed yesterday of the Buhach Producing and Mfg Co., with headquarters at Stockton. The objects of the corporation are stated to be the buying, selling, leasing and re-leasing of land, to cultivate land for the production of cereals, the plant *Pyrethrum Cinerariaefolium*, trees and vines, and generally to test the capabilities of land for the growing of crops, to manufacture and purchase buhach and insect powder, to can and dry fruit, to manufacture wines and brandies and to sell the products. The capital stock is to be \$150,000, divided into 1500 shares, all of which have been subscribed. The directors named for the first year are J. M. Welsh, D. S. Rosenbaum, J. N. Furry, N. M. Orr and J. D. Peters. The first four named are set down as the owners of one share each of the value of \$100, and the remaining 1496 shares are credited to Mr. Peters.

Santa Barbara.

EDITORS PRESS:—November and December gave us over ten inches of rain. Since the 1st of January we have had no rain of any consequence, but clear, bright weather most of the time, with some light frosts on the lowlands. Volunteer grain, grass and weeds have a good, strong growth, but begin to look somewhat yellow in places. However, the crops have not suffered yet, and if the rain comes within a few weeks, the dry weather has been a good thing. Vegetation is only checked in growth—not yet injured. Plowing is almost all done for beans, corn and other spring crops. Alfalfa has made a fair growth, and several have out and cured their first crop. Fruit trees mostly dormant, except orange, which are blooming. As yet we have no reason to complain, and we look for plenty of rain to make us the best crops of various kinds ever grown in our little valley.—O. N. CADWELL, *Carpinteria*, Feb. 21, 1889.

Santa Cruz.

A FERTILIZER FROM THE SUGAR.—Transcript: A new fertilizer to this valley, and one said to be valuable, being paid for at the rate of \$4 per ton in Germany, is being distributed gratis to those who made contracts at the beet factory last season. About 20 tons of lime-rock were ground and used in clarifying the syrup. A plastic substance remained after the process which contains lime, potash, soda, carbonic acid and other ingredients of a soil-enriching nature. Ex-Judge Gaffey, who during the past season has planted on his ranch in the foothills 1000 apple trees of choice varieties, as well as a large number of prune and apricot trees and grapevines, is applying this fertilizer. He has also given the grass in front of his town residence a liberal coating of it.

Shasta.

IRRIGATION IN FALL RIVER VALLEY.—Mail: The farmers on Fall river between here and Kirke have under consideration a new scheme of irrigation and are figuring on the cost. The plan is to construct a dam across the river on the Bowman place. Piles will be driven, and to these planks will be spiked so as to raise the water three feet above its present level. That will flood all the land lying on the river and insure big crops of hay for all. The plan is certainly practicable, if piling can be driven.

Sutter.

CHOICE VARIETIES.—Farmer, Feb. 22: The 80-acre tract recently planted by the Sutter County Fruit Co. on the farm of Mrs. W. H. Park, near Yuba City, contains as choice a selection of trees as could be set out on a tract of that area. The different kinds have been selected with great care, and the number so proportioned that when the trees begin to bear the fruit can be handled with the least cost and placed on the market at a good profit. No trees are planted that are not the best variety and the fruit of which will not bring a ready market. Through the kindness of Mr. Kells we secured the list, as follows: 500 Royal apricots, 500 White Adriatic figs, 500 Commercial almonds, 500 IXL almonds, 500 Susquehanna peaches, 1000 Foster peaches, 1000 Salway peaches, 500 Alpha cling peaches, 500

Ulatia peaches, 500 Tragedy prunes, 200 Clyman prunes, 1000 Bartlett pears, 400 Albright cling peaches, 100 Bilyeu's Late October peaches, 150 Hale's Early peaches, 100 Day's Yellow Cling peaches.

Stanislaus.

BEAVERS ENTRAPPED.—Modesto News: The beavers are very bad in some localities along Tuolumne river, particularly where the land is well cultivated in fruits and vegetables. They have been very destructive at times on Isaac Ripperdan's bottom lands, gnawing down in one season as many as 80 fruit trees of bearing age, again digging up 18 or 20 hills of tall grown corn in a single night, and getting away with it all too. They have recently been thinned out on Mr. Ripperdan's place by the skill of an old trapper who has been camping on his premises for about two weeks. He during the past two weeks has captured 40 beavers and a coon, supplying S. F. with the skins. Uncle Isaac cordially gives up all his interests in the little animals, and hopes the trapper will continue his business.

Tulare.

THE LARGEST CARROT we have yet seen, says the Visalia Delta, comes from the nursery under the management of Thos. Jacobs and brother. It weighs 15 pounds after having the branching roots and tops cut away, and measures 23 1/2 inches in circumference. It is of the White Belgian variety and would make two liberal feeds for a healthy cow.

Yuba.

STALLION SHOW.—Wheatland Four Corners, Feb. 23: In response to our call for an exhibition of stallions in town on Saturday, the 16th, T. J. Whitney presented a five-year-old Hamilton, thoroughbred stallion, weighing 1170 pounds—a very fine animal, possessing all the points of a traveler. John Seward's Black Percheron stallion Limeville attracted considerable attention with his three colts, two of which belonged to A. W. Oakley. Mr. Seward's horse is jet black, excepting two white hind feet and a small star in forehead. He weighs 1950 pounds, and is graceful in action. Limeville was imported to the United States from France in 1883. His pedigree is recorded, Percheron Stud Book of France as well as in the Stud Book of America. Dan Smith presented two fine stallions, one full-blooded Percheron, and one part Percheron and part Black Hawk. One characteristic of the Percheron was a fine flowing mane, measuring six feet seven inches in length, so long in fact that it had to be tied up with ribbons to keep it from dragging on the ground. A. W. Oakley presented two fine three-year-old animals, tipping the beam as a team at 3000 pounds, sired by Mr. Seward's horse Limeville. Chas. Bennett presented a Clydesdale champion (449), a thoroughbred, imported by him this spring. The display was fully appreciated by the many farmers and stockmen who were in town.

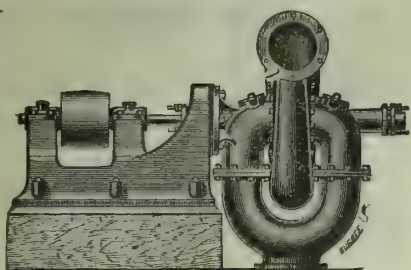
MORE ORANGE TREES.—Marysville, Feb. 19: The Colmena Orange Association has signed a contract with Sacramento nurserymen for 8500 orange trees, of Florida production, to be planted at Colmena, on the C. & O. R. R., six miles south of this city. The tract to be planted in oranges this season is 100 acres in extent. About half the trees are to be seedlings, and the remainder budded stock, of which the larger portion will be Washington Navels. The stock in the association has all been taken, and the work of planting will begin at an early date. The trees are now on the way from Florida.

OREGON.

SUCKER CREEK VALLEY.—Cor. Grant's Pass Courier, Feb. 21: Six miles south of Kirbyville, Sucker creek connects with the Illinois river. On the east, within one-fourth mile of the mouth, Althouse creek empties into Sucker, both heading in the Siskiyou mountains. At an altitude of 2000 feet above this valley are many benches of land large enough to make good homes, the soil being a rich red; in this locality the Blackcap raspberry grows in luxuriant profusion, and each year finds the bushes well laden with the delicious fruit; the red and blue whortleberry grows to perfection; hops also yield good crops of fine quality. Below this, on the north side of the Sucker creek until it reaches the valley, is the best locality for the peach—the rich, red land sloping back to the north, where the mountains tower, is the reason, I think, why spring frosts do not injure the blossoms. There is no frost at any time of the year unless the wind is in the north, and at this date, Jan. 30, 1889, potatoes and other vegetables in open sheds have not been injured, and our coldest weather for the winter is past. Clover and other grass and grain are still growing nicely, although we have an occasional light frost at night. This is in what is commonly called the Sucker Creek valley, the "garden spot" of southern Josephine county. It consists of about 40 sections of land, a large part of which will yield good potatoes and other vegetables without irrigation, although nearly all the ranches have ditches from either the Sucker, Democrat or Althouse creeks. The soil is red sandy loam and red land, the latter yielding better vegetables with irrigation, but small grain does not require artificial wetting. Red clover and alfalfa yield better crops with proper irrigation. This locality is blessed by the above streams furnishing a large supply of water all summer, especially Sucker creek. There are over 20 ditches which take water out of Sucker creek, and still an abundance goes to waste.

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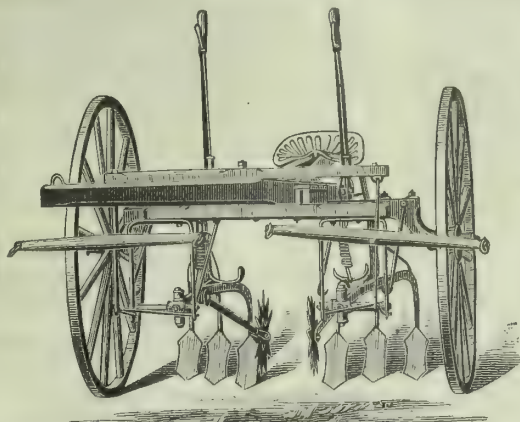
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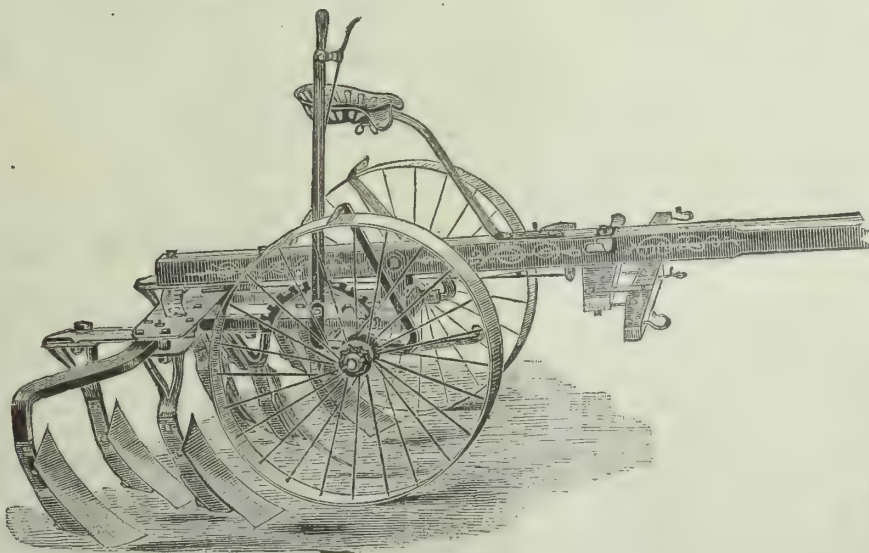
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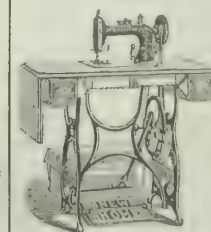
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THE DAIRY.

Revolution in the Butter Trade.

(Written for the RURAL PRESS by J. R. F.)

The increase of creameries in the Central States has been a source of surprise even to those who had predicted for the industry a growth that would eventually revolutionize the manufacture of butter. The creameries which first gained public recognition were established in the Central States and have extended to the Middle and New England States. In the former they are generally run by individuals, either incorporated or under a firm name, while in the New England States they are run on the co-operative system, and have been found to net good profit to the farmer owning stock in them. On this coast but little is known concerning the New England creameries, but those in Iowa, Dakota, Michigan, Minnesota and other Central States are often referred to in private letters, and also by the press. This, no doubt, is due to the strong competition of the creamery butter from those States for the trade of this coast. So decided has this become that many dealers think it only a question of a short time when they will be introduced in the farmer communities on this coast. As for that, it is stated that one has already been started at Walla Walla, Washington, with the milk from 700 cows as a source of supply for cream.

So as to arrive at a better understanding of the business, the writer interviewed Mr. J. H. Hegler, of the firm of Hegler, Johnson & Co., who recently returned from a tour of the Central States, where he visited several of the leading creameries. Before entering into the subject he referred to our market, and stated that out of about 4400 barrels of brine butter sent into this city by the dairymen of the Pacific Coast, fully one-fifth is being carried over, while nearly two-fifths were sold below cost. This showing is a very serious matter to those engaged in the industry. During the past season the coast dairymen furnished us with 4378 barrels of brine butter, weighing 990,000 pounds, while the Central States sent to us 28,622 kegs of creamery butter, weighing 2,983,200 pounds, over three times more than our dairymen turned out to us in brine. But this is not the worst feature of the situation; for, while much of ours remains in stock for the want of a market, that of the creamery butter is about all placed. These are unpleasant figures to digest, but, nevertheless, they are true, and show that our coast dairymen must change their tactics or they will be in no better condition next season.

In regard to his visit and the result of his observations, Mr. Hegler stated that last summer he spent some four months visiting and studying the dairy interest of the Central States, where, up to five years ago, the butter made was sold at from five to ten cents a pound. It was made in dabs, and brought in by the farmer's wife to the town merchant in exchange for goods—no cash passing. When any of it found its way to this coast our people turned up their noses at it, and, except a few second-class bakers, or some poor sailor who could not get away from it, seldom found a consumer. But all this has been changed, for the entire country from Chicago westward to the borders of civilization, and north from the Ohio and Arkansas rivers to the Canadian line, has, within a few years, been transformed from a vast grain-growing to a dairy-farming district. Iowa and Minnesota, with their almost endless miles of prairie land, which at one time were, to a great extent, the wheat granary of the United States, now do not grow much more than enough to meet their home consumption, owing to the attention of farmers being turned toward the live-stock industry—cows for milk or beef, hogs and horses. The revolution in the farming industry has been brought about by the new and improved dairy machinery, making it possible for them to turn out cheaply an article of butter equal in every respect to the product of our best dairies.

Butter is no longer made in the kitchen by the industrious housewife at the odd times which she could steal from her household duties, but the milk is sold to creameries, whose owners establish skim-houses every few miles in each neighborhood. To these, surrounding farmers haul their milk, which is at once put through a cream separator, the farmers taking back the skim-milk for their hogs. The cream, perfectly fresh and of the finest quality, is taken immediately to the creamery situated at the nearest town, where the output of the skim-houses from the surrounding country is made into fine flavored, pure, rich butter. If the weather should at any time be too hot, ice, for cooling, is brought into use, which does the work as effectually as our cool climate. Butter made in this way does not go begging for buyers at six or ten cents a pound, but finds ready custom at from 15 to 40 cents a pound. The butter thus made is packed into tubs and put away in refrigerators, with which the creameries are provided. These refrigerators are simply a small room, with thick walls and close-fitting double doors. In the upper portion of these rooms ice is stored. From the refrigerators the butter is drawn, as required, for shipment to the distribution-points, or cities, in refrigerator cars, with which all first-class roads are now well provided, so that the temperature

of the butter while in transit remains uniform. On arrival at destination, if the market is depressed and prices do not warrant selling, it is taken from the cars and put into cold-storage warehouses, which is another new feature in the butter trade. In the latter it can be kept an indefinite period of time, and its fine flavor fully preserved.

Mr. Hegler says that for the first time in our history the overland railroads put on refrigerator cars for the transportation of creamery butter to this market from the Central States, which, together with cold storage in this city on a large scale, marks a new era in the trade here. And from this another unpleasant feature of our condition is that cold-storage butter is fast gaining on us in the Territories. For with railroads throughout the entire country, and refrigerator cars run in all directions, the product of the creameries is landed at the door of every dealer at a less price than we are willing to accept for our goods. The trade of the Pacific Slope naturally belongs to this city, and dealers have depended very largely on this trade to take off the surplus productions of our dairymen. Previous to the completion of the Northern Pacific railway and Oregon Short Line, the entire northwestern coast was supplied from this city, but now they only seek this city for supplies when dealers here meet the low prices for creamery butter.

Regarding the quality of California butter, Mr. Hegler says that it is much firmer than the creamery, and stands hot weather without melting to any remarkable degree, but not to such an extent as to withstand a summer trip across the desert, consequently it is shut out of all overland markets except when shipped in brine, but this adds to the cost. He believes from experience that the mode of marketing butter on this coast in rolls is superior to that of the tub in matter of convenience both to dealers and consumers, but he adds: "Let me enter my protest against the two pound roll that only weighs a pound and a half. Nothing but legislation can now regulate the matter, and I trust our law-makers will take the matter in hand."

In speaking of the advantages and disadvantages of our dairymen, Mr. Hegler says: "The cost of transportation is largely in our favor as long as the railroads charge two cents a pound freight on butter to this city, but then other features must be considered. California dairymen carry on their business on land worth from \$25 to \$75 an acre, while Western farmers conduct theirs on land worth from \$15 to \$30 an acre. In California a good average dairy cow is considered worth \$40, while \$25 is the average in Minnesota and Iowa, and still less in Nebraska. Thus our dairymen have at the start large odds to contend against in the matter of investment, interest, rent and taxes. Another item against them is that of farm labor. In the Central or Western States \$15 to \$20 a month, including board, is about the cost, while here, the same class of labor commands from \$25 to \$30 a month, including board. In the item of winter feeding the advantage lies with us, for while it is not so necessary here, in the Central States it is absolutely necessary; but while the cow is being fed she may also be giving milk, thereby making herself more than self-sustaining, and in the spring comes out of the barn in good condition if not beef-fat. In this State it is not the practice to house and feed cows except in a limited way, and by many not at all. But it is a question if this is true economy, for the reason that the stock is so exposed to privations that they come out in the spring so thin and weak that many die."

State Dairy Commissioner.

EDITORS PRESS:—I see that California is about to pass a bill creating the office of Dairy Commissioner. This is a good thing and a long step in the right direction; and it is gratifying to us of Wisconsin to hear that you are about to take your place in the line of dairy States.

Your location and natural resources entitle you to a place in the front rank. The high price of butter, cheese and milk, and the ease and cheapness with which green feed can be had the year round, are great things in favor of California becoming a great dairy State, and the office of Dairy Commissioner, if filled by the right man, will be worth millions of dollars to her farmers. You have that man in R. P. McGlinchey of San Jose. There is no man in the United States better posted in dairy matters, and no greater expert in judging of butter. He was for many years secretary of the Northwestern Dairymen's Association and president of the Elgin Dairy Board, which fixes the price of dairy products for the Northwest. No man has done more to advance the dairy interests of the Northwest than he has.

Dairymen of California should see that R. P. McGlinchey is their Dairy Commissioner, and the success of California as a dairy State and the prosperity of dairymen is assured.

Sparta, Wis.

A. T. FOSTER.

[It is true that a bill was introduced for the establishment of a dairy commissionership, but it does not seem to have emerged from committee yet, and it has very slim chances of ever getting out. Dairymen do not assert themselves in California as they do east of the Rockies.—EDS. PRESS.]

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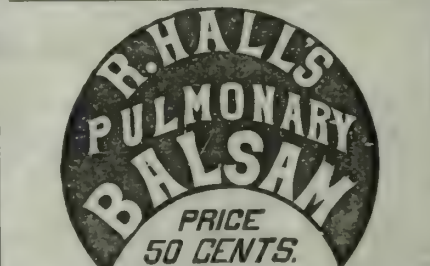
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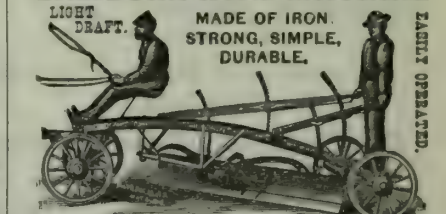


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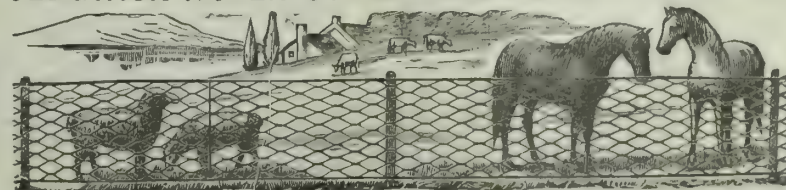
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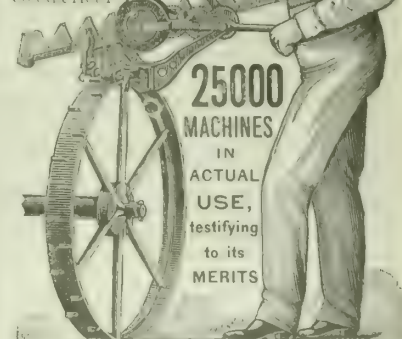
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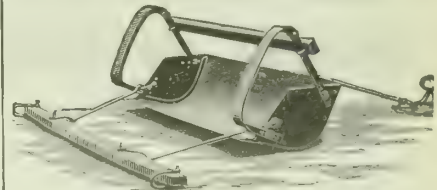
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1440 acres in Placer county; all level.

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A Ranch in El Dorado county, near Placerville, contains 160 acres, nearly all fenced in with a four-strand barbed wire fence, a good house of 11 rooms, hard finished, two brick chimneys, cut stone basement with cut stone steps, a good barn and stable, chicken house, work shop and other out-houses, a good well of water, one water ditch for the land, 1000 fruit trees, all in bearing, Peach, Apple, Fig and Cherries, 1000 Grapevines; 80 acres cleared and ready for the plow, all nearly level; about 25 acres woodland, pines, etc., all of which can be cleared; three cows and two calves. The Ranch is five miles from Coloma and nine miles from Placerville. The soil is a red loam, the house stands on the county road and the stage passes it twice every day. A span of horses, a new harness and wagon, plow, harrow and other farming utensils to be given with the Ranch. The Title, U. S. Patent. For further information address, "RANCH," Box 2361, San Francisco, or care of Illustrated Publishing Co., 220 Market St., S. F.

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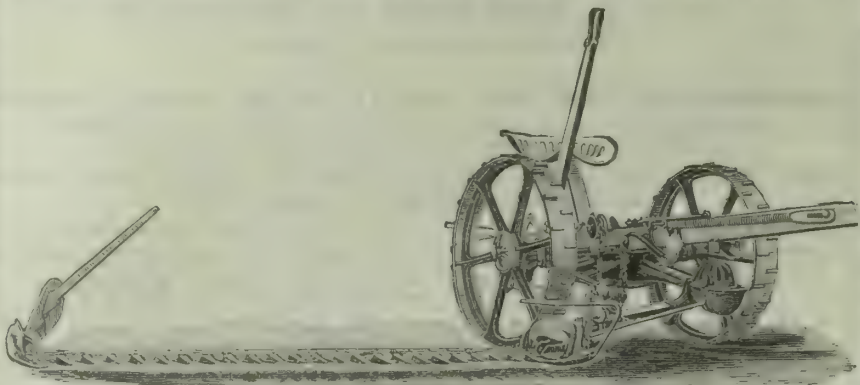
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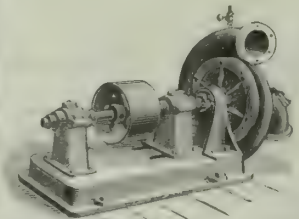
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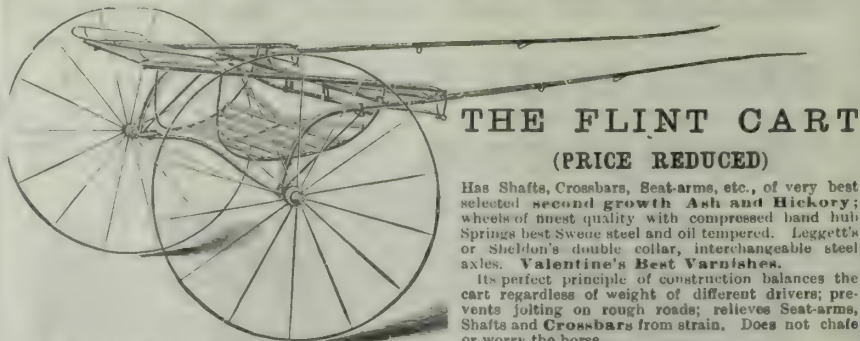
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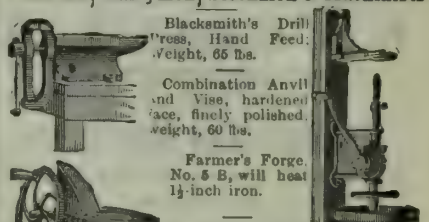
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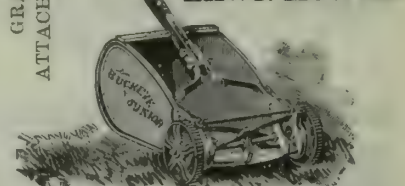
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POULTRY YARD.

White Langshans.

California has the honor of originating and breeding, in its purity, the White Langshan fowl, an excellent illustration of which we present in this issue.

The Black Langshan, from which the white

pure white fowls, with all the well-known characteristics of the Black Langshans.

When hatched, they were of bluish color on their backs, with throat and breast white and canary, like their dusky brothers; their beaks, light-horn color; shanks, slaty blue, with pink between the toes and bottom of feet, in contrast with brilliant red combs, ear lobes and wattles. These, with the snowy plumage, make a combination of colors not known in any other breed, yet very attractive and refined.

Mr. Albee's White Langshans are beyond

She was of good size, vigorous and bore true Langshan characteristics in an eminent degree. Having no use for the hen, Mr. Keesling sold and transferred her to her proper place in Mr. Albee's yard of white "sports." Her influence added tone to his stock, and a good flock was raised during the season, greatly improved in vigor and size. Mr. Keesling, who is constantly importing Black Langshans, has recently received two lots of the white variety, and is breeding them.

Thus two strains of pure White Langshans



THE WHITE LANGSHAN AS BRED IN CALIFORNIA.

variety emanates, was bred in California as early as 1882 by Mr. O. J. Albee of Lawrence, he having obtained his stock of Blacks from Eastern breeders, and in 1883 obtained a pair from John Denny of Oregon, whose brother—Hon. O. N. Denny, U. S. Consul at Shanghai, China—at that time sent him.

In the summer of 1884, three pullets and one cockerel were hatched from eggs laid by his best Langshans, two of which developed into

question pure "sports," and carrying with them the well-known good qualities of the black variety, their merits are already proven. The pair of chicks hatched in 1884 were bred together, and with their progeny, with varying success for nearly four years, without introduction of new blood.

In February, 1888, Mr. H. G. Keesling of San Jose received from China, with an importation of Black Langshans, a pure white hen.

are established in California with well-authenticated records. Would-be fanciers of the breed need not be subject to the difficulties that beset and obscure the origin of many of the new breeds.

The Poultry Industry.

The sixteenth annual session of the New Jersey State Board of Agriculture was held at

Trenton during the last week of January. Many interesting papers were read and discussed. In one of these, on "The Poultry Interests of New Jersey," P. H. Jacobs said:

It has already been demonstrated that the poultry interests of New Jersey can be made to bring enormous wealth into the State. At Hamonton we now have about 40 broiler farms, on which young chicks are hatched, by artificial methods, and marketed before they are ten weeks old. Some of the operators have only town lots and not an adult fowl on the place. We have broiler establishments with a capacity as high as 5000 chicks every ten weeks, and the visitor finds the town almost given up in the winter season to poultry. The trains bring visitors from every section of the United States, and our town and State receive advertising from that source which is greater than may be supposed. Settlers are coming rapidly, and nearly all make poultry-raising their object. We have a total capacity of over 100,000 chicks every ten weeks, and if all the brooder-houses were placed in a line it is estimated that they would reach one mile. We have hundreds of incubators in operation, and only use hens for laying. Eggs are difficult to procure, owing to the demand. It is our practice to raise 100 chicks in the small space of 5x8 feet in the brooder-house, with a little yard of only 5x16 feet. Once in this yard the chicks never leave it, except to be sent to market. This is at the rate of as many as 32,000 chicks per acre every ten weeks, and it is actually being done. We have solved the problem of the meat supply. While the Western farmer requires from three to four years to mature his meat for market, devoting a great range to that purpose and exposing his herds to all the vicissitudes of the seasons, we work under shelter and produce a choicer kind of meat on less land and at better prices. While the farmers of our own State are giving up pastures to cows and selling milk at almost cost prices, we, with our light, sandy soil, unadapted to cereals or stock, are realizing larger profits from one acre than some farmers do in more favored sections on 100 acres. In the face of this fact, I ask if the poultry interests do not deserve the greatest consideration of this board. We also have a few poultry farms upon which as many as 1000 hens are kept. One operator is making arrangements to keep 6000 hens, while others are also contemplating the keeping of large numbers. This branch of the industry will be in connection with fruit-growing, the fowls serving as insect destroyers. To a certain extent they also manure the soil, and occupy no extra ground. In other words, it is a combination of two industries—raising poultry and growing fruit—that cannot fail to return large profits.

I wish particularly to call the attention of the board to an important matter, one that may add thousands (I may truly say millions) of dollars to the wealth of the State. It is to adopt some method of promoting the poultry industry. We believe we are in a fair way of organizing a State Poultry Association. With exhibitions at State and county fairs, and a yearly poultry show in the winter season, we can educate and encourage our people. I hope this board will at once take hold of this work. At the State and county fairs poultry receives but little encouragement. Yet the poultry department is always an attractive feature, and it should be encouraged in preference to anything else. The old hen could keep our learned professors at the State agricultural grounds busy with experiments, and with benefit to the people. Small as she is, she has more admirers than the horse, sheep, cow, or hog. She gains in numbers that which may be lost in size, and she has kept the wolf from the door of many families that have lost all by too much faith in larger stock. Yet the poultry industry is almost despised. Our agricultural reports are silent on poultry matters. Our experiment stations have given no time in that direction, and the farmers, as a class, are not even familiar with the different breeds.

It is time to begin anew and to reorganize this industry. More meat, more manure, more fruit and more money with less labor and capital, can be secured from less land by poultry raising than from anything known to farmers; and I believe that, if properly encouraged, the poultry industry will add as much wealth to our State as our manufactures.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

A. F. JEWETT—Tulare Co.
E. B. LOGAN—Southern California.
H. G. FAIRBANKS—Southern California.
Geo. WILSON—Sacramento Co.
W. W. THORNTON—Los Angeles Co.
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MRS. C. J. STEPHENS—Sierra Co.
R. G. HUSTON—Montana.

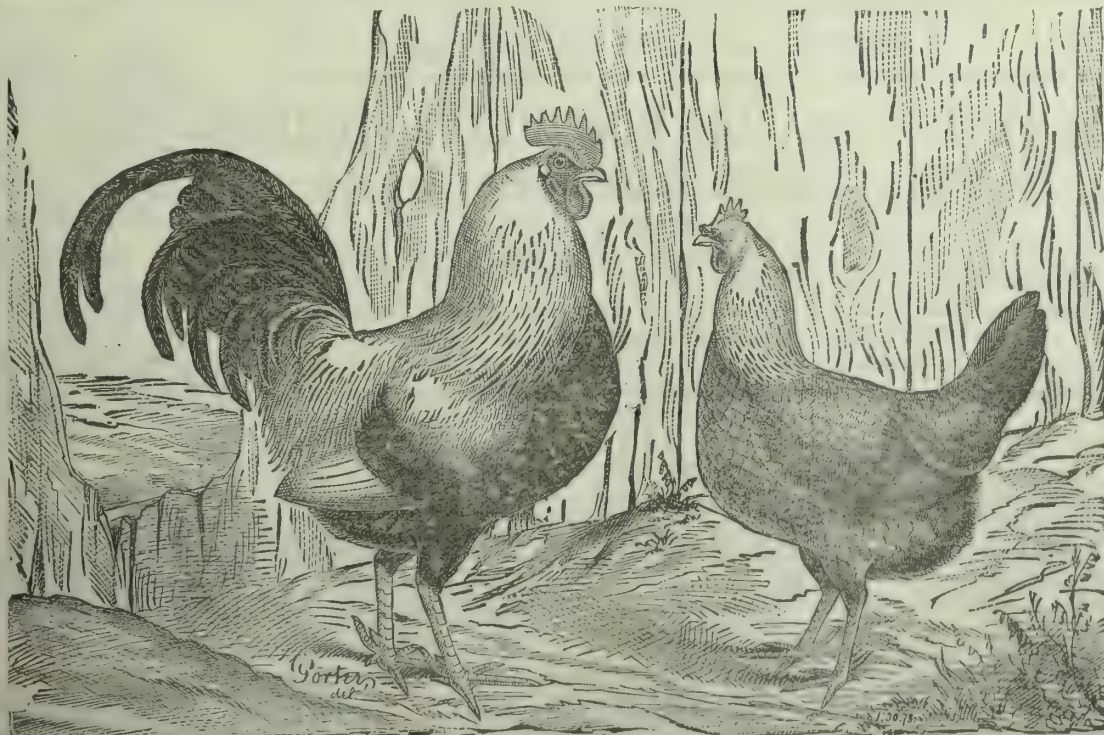
Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, term of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Silver Gray Dorkings.

The illustration here given of Silver Gray Dorkings is an excellent representation of that well-known breed. The Dorking is one of the oldest English breeds, and is the criterion of excellence as a table fowl. In the Silver Gray the color of the cock should be: Breast, pure black, tail and tail coverts, black, with metallic reflections, and the head, hackle, back and saddle feathers a pure silvery white, wing bow white, showing a brilliant bar of black. The hen's breast should be salmon color, shading to gray, head and neck silvery white, striped black, back silver gray, wings gray, tail dark gray.

The body should be deep and full, and the breast protuberant and plump; size, weight and form are highly regarded in judging Dorkings. The Silver Gray Dorking is a good layer and setter, and the chicks hardy and easily reared. Our Silver Gray Dorkings are large, handsome birds, and of good constitution. They have flesh-colored legs, and the fifth toe well developed, and they breed



SILVER GRAY DORKINGS AS BRED BY CUTTING & DORLAND, STOCKTON, CAL.

remarkably true. Cutting & Dorland have taken great pains in the selection of their Dorkings, and believe they have as good stock of this popular fowl as there is in the country, hav-

ing recently imported the fowls from Buffalo, N. Y. They have also imported and bred a lot of light and dark Brahma, Silver-Spangled Hamburg and White-Faced Black Spanish.

GRANGERS' BANK

OF CALIFORNIA,
SAN FRANCISCO, CAL.
INCORPORATED APRIL, 1874.



Authorized Capital.....\$1,000,000
Capital paid up in gold coin..... 624,160
Reserved Fund..... 40,000
Dividends paid to Stockholders... 515,620

OFFICERS.

A. D. LOGAN.....President
I. C. STEELE.....Vice-President
ALBERT MONTELLIER.....Cashier and Manager
FRANK McMULLEN.....Secretary
General Banking Deposits received, Gold and Silver.
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and country produce a specialty.
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PROTECT YOUR TREES

FROM

Sunburn, Borer, Rabbits, etc.
One Cent per Tree!

Hay's Tree Stem Envelope
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WATERPROOF! ADJUSTABLE!
Easy, economical and expeditious.
Saves time, trouble and expense.
Waterproof Paper, 7x18 inches, \$1
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Tarred Felt, vermin and waterproof, good for 3 years,
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Send for samples. Orders promptly filled by

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416 Sacramento St., San Francisco, Cal.

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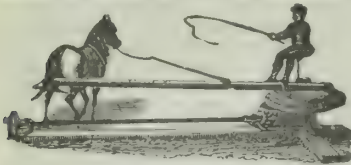
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WE LEAD!

Would-be imitators try to follow. Shun
all imitations or so-called "Light-
ning Pattern" knives and accept
the genuine only, which bears our
registered label, and has our firm
name stamped on the blade.

BEST KNIFE ever devised for cutting
in mow, stack, or bale. Every knife
is made of the BEST materials and
details of workmanship are
matters of constant attention. Each sharp-
ened by grinding on the corner of an ordinary
grindstone. Its great popularity has never
waned. For sale by Hardware trade generally.

The HIRAM HOLT CO. East Wilton, Me.



Send for Catalogue
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HORSE POWERS, WINDMILLS, TANKE
and all kinds of Pumping Machinery built to order.
Awarded Diploma for Windmills at Me-
chanics' Fair, 1885. Windmills from \$65. Horse
Powers from \$50. F. W. KROGH & CO., 51
Beale Street San Francisco



The BUYERS' GUIDE is
issued March and Sept.,
each year. It is an ency-
clopedia of useful infor-
mation for all who pur-
chase the luxuries or the
necessities of life. We

can clothe you and furnish you with
all the necessary and unnecessary
appliances to ride, walk, dance, sleep,
eat, fish, hunt, work, go to church,
or stay at home, and in various sizes,
styles and quantities. Just figure out
what is required to do all these things
COMFORTABLY, and you can make a fair
estimate of the value of the BUYERS'
GUIDE, which will be sent upon
receipt of 10 cents to pay postage,
MONTGOMERY WARD & CO.
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**379 VARIETIES OF
FRUIT TREES,
VINES, PLANTS, ETC.**
Apple, Pear, Peach, Cherry, Plum,
Quince, Strawberry, Raspberry,
Blackberry, Currant, Grape,
Gooseberry, etc. Send for Catalogue.
J. S. COLLINS, Moorestown, N. J.

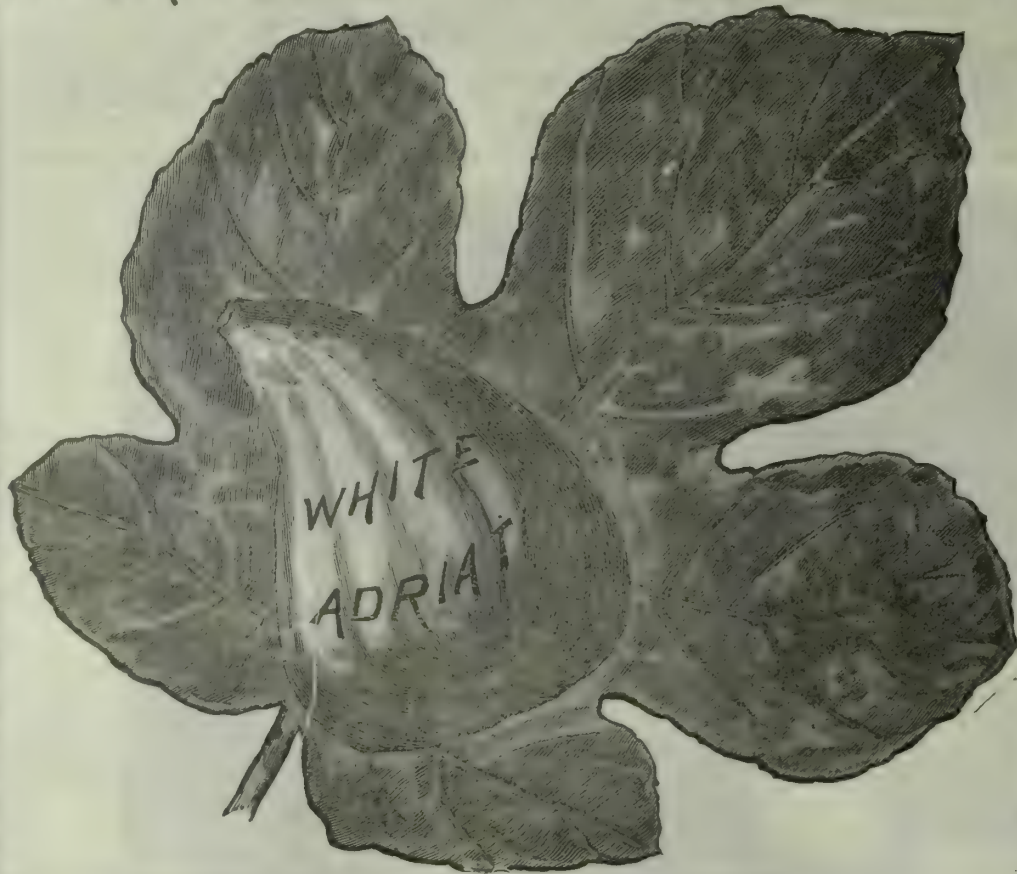
OLIVE TREES.

One-year-old Picholine, in boxes; very large and fine.
O. W. CRANE,
616 Eighteenth St., Oakland Cal.

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are requested to be sure and notify us
when this paper is not taken from
their office. If not stopped promptly
through oversight or other mishap, do us the favor to
write again.

HEADQUARTERS FOR WHITE ADRIATIC FIGS.



—THE—

Largest Stock of Trees in
the State.

The only Fig that should be
planted for Drying.

ALSO A LARGE STOCK OF
OTHER TREES:

Apples,
Pears,
Peaches,
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Apricots,

Cherries, Nectarines,
Olives,
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Shade Trees and Ornamen-
tal Shrubs,
Greenhouse Plants, Roses, Etc.

A complete assortment of Rooted
Grates and Cuttings. All trees war-
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Catalogue free.

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SEASON OF 1888-89.

SUPERPHOSPHATE FERTILIZER!

SPECIAL GRADE

—FOR—

TREES AND VINES.

THE PERFECTION OF FERTILIZERS.

THE MEXICAN PHOSPHATE & SULPHUR CO.

Offer to the Viticulturists for this season a Special Grade of Fertilizer best
suited to the growth and production of Fruit Trees and Vines, of a guar-
anteed analysis of 14½ per cent Phosphoric Acid, 6 per cent Ammonia and
7.4 per cent Sulphate of Potash.

We offer Liberal Terms to responsible parties. FOR SALE BY

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TAYLOR'S FUMA CARBON BISULPHIDE

For Killing Squirrels, Gophers, Prairie Dogs

AND OTHER BURROWING ANIMALS.

This article is specially prepared for this purpose, and will give a better return for the money than any other
goods on the market. No animal can live in its closed hole with this. It leaves no useless residue.
Get a trial order from your Druggist and see for yourself.

Manufactured by EDWARD R. TAYLOR, Manufacturing Chemist, Cleveland, Ohio

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FOR SALE BY ALL DRUGGISTS.

Directions for use with each package.

WHALE OIL SOAP

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Codlin Moth and Insect Exterminator.

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Established
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Wholesale Seed and General Commission Merchants,

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Wholesale Dealers in Timothy, Red Top, Red and White Clover, Texas and Kentucky Blue Grass, Common, German
and Hungarian Millet, Alfalfa, Mesquit, Sheep's Foot, Corn, Beet, Carrot Vegetable and Tree Seeds.
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Dried Fruits, Poultry, Butter and Eggs a specialty. Consignments solicited.

ROSES, TREES, PLANTS AND SHRUBS.

Send for our New Catalogue. Mailed Free

KELLER'S NURSERIES,

Box 73

OAKLAND, CAL.

A FULL LINE OF

Budded Orange and Lemon Trees,
AND SOUR SEEDLINGS,

2 yrs. old, at the

GEORGETOWN NURSERIES,

Georgetown, Florida

Correspondence solicited.

AARON WARR.

ROSE SPRING NURSERIES,

Roseville, Placer Co., Cal.

We will send by mail, to any address in the United
States:

10 Everblooming Roses, all different and
named, for \$1.00.

10 Geraniums, all different and named, for \$1.00

Also a large lot of other Dollar Collections.

Also will send by mail one-year old Vines of the ship-
ping varieties at \$8 per 100. Cuttings of Grapevines of
almost any variety delivered by mail at \$2 per 100.

Send for list of kinds to

E. BOOTH,

Roseville, Placer Co., Cal.

GLEN ST. MARY NURSERIES.

Oriental and Southern Fruits, many of which
are adapted to the extreme South and other farther North.
The largest stock of Peach and Plum Trees ever grown in
Florida, including many varieties of extremely early ultra
Southern Peaches. Ten varieties of Oriental
Plums. A full line of Olives, Figs, Apricots, Pecans,
Japan Persimmons and other fruits. The Satsuma
Orange is the hardiest known variety and one of the best.
Send stamp for Illustrated Catalogue, Price List and Mail-
ing List. Mention this paper. Address G. L. TABER,
Glen St. Mary, Baker Co., Florida.

POHONA NURSERIES.

1838. FIFTY YEARS. 1889.

Facsimile of trade-mark label at-
tached to each and every tree of "Won-
derful Peach." None reliable without
it. Large stock of Raspberry, Straw-
berry and Blackberry Plants. Niagara,
Moore's Early, Diamond, Eaton and
other Grapes. Kieffer and LeConte
Pears. Spaulding and Japan Plums.
Apples, Cherries, etc. All the worthy
old and promising new varieties. Catalogues Free.

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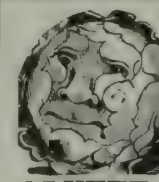


FOREST TREES.

Catalpa Speciosa, White
Ash, European Larch,
Pines, Spruces, Arbor
Vitas, etc. Catalpa Speciosa Seed Forest and
Evergreen Seeds.

R. DOUGLAS & SON

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PURE SEEDS FRESH SEEDS

Warranted to grow and give
Satisfaction. Buy your seeds
direct from the Growers. We
sell Best Seeds Cheap. Pkts
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ders. Send for Beautiful Il-
lustrated CATALOGUE, sent
FREE. Market Gardeners,
send for Wholesale Price List.
ALNEER BROS., Rockford, Ill.

Bogus Pedigrees Criminal.

Our live-stock interests have suffered somewhat in this State from bogus pedigrees, and dealers with active imaginations have no doubt sometimes furnished excellent lines of descent for some very ornery scrubs. There has also been some imposition practiced probably upon those furnishing certificates of registration. All such enterprises on the part of stock dealers are now criminal by the laws of this State. The following new section to be known as No. 1615 of the Penal Code has been passed by the Legislature and approved by the Governor:

Every person who shall, by any false or fraudulent pretense, obtain from any club, association, society, or company organized for the purpose of improving the breed of cattle, horses, sheep, swine, or other domestic animals, a certificate of registration of any animal in the herd register, or any other register of any such club, association, society, or company, or a transfer of any such registration, and any person who shall, for a legal consideration, give a false pedigree of any animal, with intent to mislead, shall be guilty of a misdemeanor.

Barbed-Wire Fences.

The following bill, adding a new section to the Penal Code, passed both branches of the State Legislature and has been signed by the Governor:

Section 593. Every person owning or having charge of, or control in behalf of, or acting for the owner of land adjoining a public highway, or street of an unincorporated town, who shall erect or maintain a barbed-wire fence along the line of said land adjoining the public highway, without placing in a substantial manner a board or rail not closer than three feet from the ground on such fence, equal in size and strength to a pine board six inches in width, one inch in thickness, and sixteen feet in length, shall be guilty of a misdemeanor.

This Act shall take effect one year after its passage.

California Fruit-Union Agencies.

The directors of the California Fruit Union met at the G. Ilen Egle hotel in Sacramento Feb. 21st to consider and appoint Eastern agents for the approaching fruit season. After a session lasting until 10 P. M., the *Record Union* says the same agents were selected as last year, and upon the same terms and conditions. This was done by a vote of five to four in the directory, the contest being the same as last year. Fruit is to be sold by auction at Chicago, New York and Boston, as last season. The agents for the Union are as follows: Chicago, Porter Bros.; New York, Sgobel & Day; Boston, Blake & Ripley; Omaha, Peyke Bros.; St. Louis, Garber & Co.; Kansas City, Loomis & Co.; St. Paul, Plesley & Co.; Minneapolis, Porter Brothers Company; and New Orleans, Macheca Brothers.

Vacaville Items.

EDITORS PRESS:—Rain commenced falling Saturday night and lasted until Sunday evening. About half an inch fell, and was very welcome, although it was needed more to ease people's feelings than anything else. The sky is still cloudy and it looks as if more rain would yet fall.

Fruit trees are blossoming out slowly, and the prospect for a large crop of fruit is now good.

People generally are pruning heavily this year. They want more peach and not so many peaches.

Vacaville, Feb. 25, 1889.

STALLIONS AT COTATE RANCHO.—Wilfred Page has issued a very neat folder giving the pedigrees of Mortimer and Eclectic, two standard-bred Electioneer stallions, which are now standing at Cotate ranch in the Santa Rosa valley, as advertised in the *RURAL*. Cotate ranch, as many readers of the *RURAL* already know, is a magnificent estate on the line of the S. F. & N. P. R. R. between Petaluma and Santa Rosa, and there is a station on the property called "Page's," but the postoffice is Penn's Grove, Sonoma county. Breeders of horses should address Mr. Page for his circular, which gives full particulars. The circular bears this forcible legend: "If you want a trotter, breed to a trotting-bred stallion, himself a trotter and whose every ancestor has produced trotters or the sires and dams of trotters." As they say in the classics: *verbum sap.*

SETH COOK, best known to our readers as proprietor of the famous stock-farm in Contra Costa county, died at the Palace hotel in this city on Tuesday morning, Feb. 26th, aged 59 years. Mr. Cook was largely interested in mining operations, whereby he had acquired considerable wealth. He was a native of New York State, whither his remains are to be carried for burial.

GRAPE-GROWERS' MEETING.—The annual meeting of the Grape-Growers' and Wine-Makers' Association of California, for the election of officers, etc., will be held at the rooms of the Viticultural Commission, Platt's hall, San Francisco, on the 5th day of March, 1889, at 11 o'clock A. M.—E. H. RIXFORD, Sec'y.

UMATILLA COUNTY, Oregon, pays \$1 bounty on coyote scalps.

Seeds, Plants and Implements.

Among the many catalogues now coming to us from seedsmen, florists, nurserymen and manufacturers, are several which deserve especial mention.

Nearest home are Trumbull, Reynolds & Allen of Kansas City, Mo., whose list includes not only field, garden, flower and tree seeds, but a varied assortment of agricultural tools, machines and vehicles.

John A. Salzer, La Crosse, Wis. (whose enormous potato cellars were depicted in the *RURAL* of Feb. 9th), has his 80 page quarto catalogue of plants and seeds profusely illustrated and brilliantly covered.

Alneer Bros., Rockford, Ill., issue a neat and modest pamphlet, well illustrated, of "everything for the flower and vegetable garden."

D. M. Ferry & Co. of Detroit, Mich., embellish their 321 Seed Annual with full-page colored plates of the "Early Puritan" cauliflower, Michigan Yellow Globe onion and a beautiful new sweet pea, "Miss Blanche Ferry."

Hill & Co. of Richmond, Indiana, send out their wholesale list for the spring of 1889 in plain black and white; but the fine engravings of roses, begonias, chrysanthemums, etc., render it very pleasing.

J. M. McCullough's Sons, Cincinnati, issue their annual seed catalogue in singularly tasteful style, with a handsome frontispiece, colored to nature, of "The Pines," the residence and trial grounds of Albert McCullough.

John Saul, the veteran nurseryman of Washington, D. C., publishes no less than eight catalogues, free to applicants, of which No. 6 is descriptive of "new, rare and beautiful plants."

On the quarterly wholesale list for florists and market gardeners, from Henry A. Dreer, Philadelphia, Pa., the "Eclipse" asparagus, claimed to be the largest and finest ever set out, holds the place of honor.

Ellwanger & Barry of the famous Mt. Hope nurseries, Rochester, N. Y., have so well established a reputation that their descriptive Catalogue of Select Roses for '89 seems to need no pictorial adornment.

Peter Henderson & Co.'s "Manual of Everything for the Garden" comes in quarto form, 150 pages, gorgeous with chromo-lithographs of fruits, flowers and vegetable novelties. (This catalogue is so costly to the publishers that a non customer sending for it to 35 Courtlandt street, N. Y., should inclose 25 cents in stamps.)

And all the way from Boston we have W. W. Rawson & Co.'s elegant quarto Hand-Book for the Vegetable and Flower Garden, illustrated in mezzotint.

A Handsome Recognition

The *Legal Adviser* of Feb 5th comes to us from Chicago with the following marked:

The *PACIFIC RURAL PRESS* is the name of a weekly journal published in San Francisco, Cal., a single copy of which accidentally found its way to us, and we were so much pleased with it that it is with pleasure we notice some of its merits. It seems to be pure in tone, candid and well informed in all matters of industrial interest, and appears to be a standard authority on all branches of California agriculture. Now that residents in the East are feeling so much interest in all that pertains to the locality in which this journal is published, we would recommend it as giving much valuable and reliable information on the subject. It is handsomely printed and illustrated and is first-class in every respect.

Thanks! If the *Adviser* advises as well in legal matters as it does in the paragraph just quoted, we do not wonder that it has entered upon its tenth volume and become the official paper of Cook county, Illinois.

SOME SWEET POTATOES.—Our friend S. T. Howell of Merced lately sent us a box of sweet potatoes, five of which together weighed 32 pounds, the largest one tipping the beam at 7 pounds 6 ounces. They have been viewed with wondering interest by many eyes. We can testify, from personal experience, that some of the smaller specimens were of excellent quality, and we do not know but the very biggest of the lot will prove just as good eating, if ever it is subjected to the culinary process. Mr. Howell mentions in the note accompanying his gift that his sweet potatoes yielded at the rate of 600 sacks—30 tons—to the acre. We believe it was he who last year sent the State Board of Trade three potatoes aggregating 40 pounds.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or of some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

TO SUBSCRIBERS.—Members of the P. of H. now receiving the regular editions of the *RURAL PRESS* are advised to try our Grange editions instead for awhile. The cost is the same for each edition. We will transfer names from either to the other on receiving a written request therefor.

E. W. HALFORD, private secretary to the President-elect, receives 300 or 400 letters a day. These he reads, shows some of them to General Harrison, files a few and answers all of them.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING FEB. 12, 1889.

397,580.—HANDLE FOR CROSSCUT SAWS—M. Bennett, Eureka, Cal.

397,581.—ORE-WASHER—Henry G. Blasdel, S. F.

397,691.—FRUIT-PITTER—Briggs & Cavallaro, San Jose, Cal.

397,584.—TRACK-CLEARER—G. W. Cook, Mountain View, Cal.

397,542.—ORE-SEPARATOR—E. L. Giroux, Alhambra, Ogn.

397,551.—HAY OR GRAIN UNLOADER—Wm. G. Hunter, Traver, Cal.

397,753.—GOVERNOR FOR GAS ENGINES—D. S. Regan, S. F.

397,604.—BRICK MACHINE—J. Morhard, S. F.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

Syracuse Chilled Plows

The growing demand for the implements of the Syracuse Chilled Plow Co. of Syracuse, N. Y., has made it necessary for them to increase their plant within the last year. They have added a new "Greene" engine of 400-horse power, and much machinery of the most modern designs, greatly augmenting their capacity for doing the finest work, in large quantities, and at the least expense.

They claim that the popularity of their plows is due largely to the fact that they are built to correspond with the conditions of the soil in which they are to be used. They make one line (in all sizes, from a small one-horse to a three-horse plow, in both right and left hand) that is particularly adapted to hard clay or very stony land. These will hang to the ground under all circumstances, and are recognized as the best plow on the market for hard-land work.

Another series of wood-beam plows—very much lighter in weight—is adapted to sandy or light loamy soil. This plow has a sloping landside, which tends to keep the clods and dirt from falling into the furrow, making the plowman's work much more comfortable and easy. This is made in all sizes, both right and left hand, and is very popular in the far West and South.

Their line of hillside plows embraces a vast variety, unsurpassed in working qualities, the sales of which are enormous.

Their sulky plows comprise the regular land-side sulky, in both right and left hand, and a reversible plow which does perfect work on either level land or side hill.

In addition to plows, they make all sorts of cultivating tools, including a spring-tooth harrow, which combines several unique improvements; steel frame cultivators, single and double shovel-plows and wing shovels. They are also sole manufacturers of the celebrated Chapman railway hay-pitching apparatus.

The policy of the Syracuse Chilled Plow Co. has always been to turn out none but the best goods, and by conscientiously adhering to this principle, they have established their present enviable reputation.

Their illustrated catalogue will be mailed free. Send for it!

WOMEN can now serve as school trustees in British Columbia incorporated towns and cities.

Herschel's Weather Table.

For Foretelling the Weather, Throughout All the Lunations of Each Year, Forever.

This table and the accompanying remarks are the result of many years' actual observation, the whole being constructed on a due consideration of the attraction of the Sun and Moon, in their several positions respecting the Earth, and will, by simple inspection, show the observer what kind of weather will most probably follow the entrance of the Moon into any of its quarters, and that so near the truth as to be seldom or never found to fail.

If the New Moon, First Quarter, Full Moon, or Last Quarter happens

IN SUMMER.

IN WINTER.

	IN SUMMER.	IN WINTER.
Between midnight and 2 o'clock.	Fair.	Frost unless wind Southwest.
" 2 and 4 morning	Cold and showers.	Snow and stormy.
" 4 and 6 "	Rain.	Rain.
" 6 and 8 "	Wind and rain.	Stormy.
" 8 and 10 "	Changeable.	Cold rain if wind West, snow if E. st.
" 10 and 12 "	Frequent showers.	Cold and high wind.
" 12 and 2 afternoon	Very rainy.	Snow or rain.
" 2 and 4 "	Changeable.	Fair and mild.
" 4 and 6 "	Fair.	Fair.
" 6 and 8 "	Fair if wind Northwest.	Fair and frosty if wind North or N. E.
" 8 and 10 "	Rainy if South or Southwest.	Rain or snow if South or Southwest.
" 10 and midnight.	Fair.	Fair and frosty.

OBSERVATIONS.—1. The nearer the time of the Moon's change, first quarter, full and last quarter are to midnight, the fairer will be the weather during the next seven days.

2. The space for this calculation occupies from ten at night till two next morning.

3. The nearer to midday or noon the phases of the moon happen, the more foul or wet weather may be expected during the next seven days.

4. The space for this calculation occupies from ten in the forenoon to two in the afternoon. These observations refer principally to the Summer, though they affect Spring and Autumn nearly in the same ratio.

5. The Moon's change, first quarter, full and last quarter, happening during six of the afternoon hours, i. e., from four to ten, may be followed by fair weather; but this is mostly dependent on the wind, as is noted in the table.

6. Though the weather, from a variety of irregular causes, is more uncertain in the latter part of Autumn, the whole of Winter and the beginning of Spring, yet in the main the above observations will apply to those periods also.

7. To prognosticate correctly, especially in those cases where the wind is concerned, the observer should be within sight of a good vane, where the four cardinal points of the heavens are correctly placed.

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First dam by Mambrius Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08, and Jay Eye See, 2:10.

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First dam Daisy by Luck's All 188.

Second dam by Providence 241; he by Master George 203; by King George 160; he by King George IV 163.

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Won at San Jose, 1884, first premium as best yearling. Won, 1885, first premium as best two-year-old at Sacramento State Fair. Won, 1886, first premium as best three-year-old at Livermore Stallion Show, also sweepstakes over all others of any age or breed; 1887, first premium at State Fair, Sacramento, as best four-year-old; also first premium at Los Angeles, 1888, first premium at State Fair, Sacramento, as best five-year-old.

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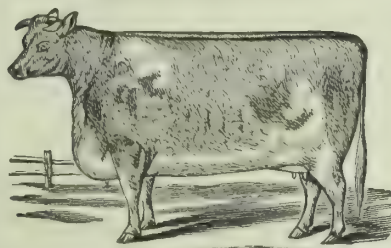
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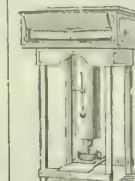
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S. F. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, Feb. 27, 1889.

Rains the past week caused a more hopeful feeling among dealers, and created more trading in some lines of produce, although the close money market, due to sending money out of the State, probably to avoid paying taxes on it, has an important influence on the markets. With the drawing back of or the returning of the money after next week, more activity is looked for in general trade. The wheat centers at the East and abroad have shown more firmness, with an advance reported abroad. The following is to-day's cablegram:

LIVERPOOL, Feb. 27.—Wheat—Steady. California spot lots, 7s 7d to 7s 10d; off coast, 39s; just shipped, 38s 9d; nearly due, 39s; cargoes off coast, stiff, on passage, demand for cargoes near at hand; Mark Lane wheat, improving; French country markets, turn dearer.

British Grain Trade.

LONDON, Feb. 25.—The *Mark Lane Express*, in its review of the grain trade for the past week, says: Last week in London the average price of English wheat fell to 31s, owing to the fact that the greater portion tendered by farmers was of poor quality. Deliveries do not improve. Foreign wheat is firmer, with a slight increase in business. Corn shows a tendency toward weakness. The retail inquiry for oats improved and there was an occasional advance of 3d. To-day the cold weather and moderate supplies improved the tone of the market. English wheat sold slowly at previous price. Flour is firm. Malt barley and malt are steady; new California, 40s 6d @ qr. Grinding barley is steady. New American corn is 3d lower; old is steady, closing weak. Oats are in fair retail request. Wheat and flour on passage to United Kingdom, 2,067,000 qrs.; wheat to Continent, 434,000. Imports of wheat into United Kingdom during the past week, 281,000 qrs.; flour, 208,000 bbls.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt:

	Feb.	Mar.	Apr.	May.	June.	July.
Thursday....	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4
Friday.....	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4
Saturday....	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4
Monday.....	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4
Tuesday....	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4	78 3/4

The following are the prices for California cargoes for off coast, nearly due and prompt shipments:

	O. C.	P. S.	N. D.	Market.
Thursday....	38 3/4	38 3/4	38 3/4	Firm.
Friday.....	38 3/4	38 3/4	38 3/4	Firm.
Saturday....	38 3/4	38 3/4	38 3/4	Firm.
Monday.....	38 3/4	38 3/4	38 3/4	Improving.
Tuesday....	38 3/4	38 3/4	38 3/4	Advancing.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York:

	Feb.	Mar.	Apr.	May.
Thursday.....	98 1/2	98 1/2	100	101 1/2
Friday.....	98 1/2	98 1/2	100	101 1/2
Saturday.....	98 1/2	98 1/2	100	101 1/2
Monday.....	98 1/2	98 1/2	100	101 1/2
Tuesday.....	98 1/2	98 1/2	100	101 1/2

The closing prices for wheat have been as follows, at Chicago:

	Feb.	Mar.	May.	July.
Thursday.....	100 1/2	100 1/2	100 1/2	98 1/2
Friday.....	100 1/2	100 1/2	100 1/2	98 1/2
Saturday.....	100 1/2	100 1/2	100 1/2	98 1/2
Monday.....	100 1/2	100 1/2	100 1/2	98 1/2
Tuesday.....	100 1/2	100 1/2	100 1/2	98 1/2

NEW YORK, Feb. 27.—Wheat—99c for cash, \$1.00 for May, \$1.00 for June and 96 3/4c for July.

CHICAGO, Feb. 27.—Wheat—\$1.04 1/2 for cash, \$1.07 1/2 @ 1.07 1/2 for May and 93 3/4c for July.

Eastern Wool Markets.

NEW YORK, Feb. 22.—Bradstreet's says of the wool market: There is only a light demand for wool in the various markets, owing to the fact that most of the large manufacturers are well stocked up. Prices, however, hold firm, and as supplies in dealers' hands are only light, with no prospect of renewing them before the new crop comes in, the whole position is decidedly stronger than it was a week ago. The volume of business has been quite up to the average during the week, with the demand mostly for domestic wools. Firm conditions abroad seem to have created a feeling of steadiness among the dealers in this market, and there are no signs of any break in prices for some time to come. Australian wools are firmer, and the high prices which have ruled at the London sales, which closed Tuesday, have strengthened the hands of holders there. Spot stocks are reported very light, but considerable shipments are coming to this country by sailing vessels from Melbourne. Territory wools are also in some request, but buyers are not disposed to go beyond immediate needs. Carpet wools are firm with only slight offerings. There is an improved demand for Western pulled wools, and supplies are coming in quite freely.

The situation at Philadelphia has not been changed in any important respect since last week. Manufacturers have bought sparingly and only for actual requirements, but most sales have been at unchanged prices, and holders, as a rule, manifest no disposition to quicken business at the expense of concessions unless it be on a few undesirable lots.

BOSTON, Feb. 22.—The market ruled rather quiet during the past week and sales do not foot up within about 500,000 lbs. as much as the previous week. While no change can be made in quotations, holders of domestic are less firm in their views and more disposed to make slight concessions, particularly on ordinary grades. Stocks, however, are comparatively small, and a few weeks of active business would clean out the market. No material decline in prices is expected, as the indications are that all available supplies will be wanted before the early new clip comes to hand. Michigan fleeces have been selling fairly, but not at the extreme prices obtained a week or two ago. Ohio fleeces held up pretty well. Sev-

eral lots of Territory wools have been closed out. Australian and other foreign wools, hold a strong position. Sales this week were 1,533,400 lbs.

Miscellaneous.

NEW YORK, Feb. 24.—Hops retain their noted strength. It is thought in trade that the local spring wants alone will support the present rates except the 22c rate for the best State quality, of which there is not enough above the 20c style to tempt any buyers. Common to prime new Eastern, 15@20c; black growths, 3@11c; Pacific, 14@21c; fair to choice of other grades, 6@14c.

Peeled peaches are neglected. Sales: 3000 cases Eastern unpeeled, 5 1/2c. Limas are steady at \$2.90.

Local Markets.

	S. S.	B. S.	B. '89.	S. '89.	S. '89.
Thursday....	146 1/2	147 1/2	147 1/2	147 1/2	147 1/2
Friday.....	146 1/2	147 1/2	147 1/2	147 1/2	147 1/2
Saturday....	146 1/2	147 1/2	147 1/2	147 1/2	147 1/2
Monday.....	146 1/2	147 1/2	147 1/2	147 1/2	147 1/2
Tuesday....	146 1/2	147 1/2	147 1/2	147 1/2	147 1/2

—New. Fold.

BARLEY.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday....	86 1/2	86 1/2	94 1/2
Friday.....	86 1/2	86 1/2	94 1/2
Saturday....	86 1/2	86 1/2	94 1/2
Monday.....	86 1/2	86 1/2	94 1/2
Tuesday....	86 1/2	86 1/2	94 1/2

BAGS—The rains have caused in some quarters a stronger feeling, but as yet the buying interest does not respond to it. Calcuttas, on spot, are quoted at 7 1/2 @ 7 3/4c, and for June-July delivery 7 1/2 @ 7 3/4c.

BARLEY—Crop prospects are reported to be of the very best, and with the usual spring rains the outlook, it is claimed, will be fully up to any previous season. In the sample market, prices show more or less irregularity, being governed from day to day by the disposition to press holdings on the market. For futures, trading has been only moderately fair. The following are to-day's Call Board sales:

Morning Session: Buyer season—100 tons, 85 1/4c; 500, 85 1/4c; 200, 85 1/4c; 100, 84 1/4c @ cty. Afternoon Session: Buyer 1889—100 tons, 94c. Buyer season—100 tons, 84c; 100, 84 1/4c; 100, 84 1/4c @ cty.

BUTTER—The market, which showed some signs of recovery, is in the "dumps" again, brought about by continued free receipts, a strong selling pressure and a restricted market. Bearing on this, an article appears elsewhere in to-day's paper.

CHEESE—The market is still weak, with buyers operating in a hand-to-mouth way.

EGGS—The market recovered some, shaded off again under free receipts, but at the close is again firmer under a good demand and only fair receipts.

FLOUR—The market is steadier, with a fair trade call ruling.

WHEAT—In the sample market trading has been fairly active, with more passing into exporters' hands, probably owing to an improvement in prices abroad. Rains the past week did more harm than good to the plant on summer-fallow land, but they have done much good to the late sown. As the larger proportion of the land seeded is summer-fallow, the damage will probably be more extended than now thought. Of necessity, this will largely depend on the spring rains. With the usual quantity the plant will go to straw at the expense of the grain, or, in other words, there will be a larger proportion of straw than of grain. In the speculative market trading was fairly active, with slight fluctuations in these movements. Owing to the corner that is being run in Chicago, that market has less of a controlling influence than does the New York market, although both exert quite an influence. The following are today's Call Board sales:

Morning Session: Buyer 1889—100 tons, \$1.51 1/2; 700, \$1.51; 200, \$1.51 1/2; 300, \$1.50 1/2; 500, \$1.50 1/2; 400, \$1.50 1/2; 400, \$1.50 1/2; 300, \$1.50 1/2; 500, \$1.50. Buyer season, 200 tons, \$1.48; 600, \$1.47 1/2; 100, \$1.47 1/2; 700, \$1.47 1/2 @ cty. Afternoon Session: Buyer 1889—900 tons, \$1.49 1/2; 300, \$1.49 1/2; 200, \$1.49 1/2; 900, \$1.49 1/2; 200, \$1.49. Buyer season—400 tons, \$1.46 1/2; 100, \$1.46 1/2; 500, \$1.46 1/2 @ cty.

[COMMUNICATED.]

Market Information.

Cereals.

The *Mark Lane Express*, Feb. 4th, says: The weather remains of a mild and open character over the greater portion of Western Europe, and, instead of normal winter conditions, such as have hitherto prevailed in the East, extending westward, there have been during the past week several signs of a mild period setting in throughout Central Europe, if indeed not in Russia itself. However, there yet remain a number of old-fashioned believers in a fine Candlemas being followed by severe weather, and in England we cannot well be sure that winter has left us until Easter be past. The growing wheat shows a good, even, and often a thick plant; under the influence of a springlike temperature it is coming on with a dangerous rapidity. The land is terribly heavy for spring plowing and seeding, and before the time comes when barley must be got in, it is greatly to be desired that frost should come to improve the condition of the soil. Wheat thrashings continue to take place on a larger scale than present low prices would seem to justify. The lightness of the new grain, as well as its softness and poor quality for milling, are, however, reasons why low prices must needs be accepted. The price of English wheat must, we fear, be quoted a shilling lower on the week at the chief markets. About a third of the exchanges only have admitted the decline, but the remaining two-thirds do not include a single market where any advance has been realized, and most of those which are quoted as unchanged are so only in the absence of enough business to test quotations. If millers were to come forward as free buyers at one shilling under quoted terms, there is scarcely a market where the offers would be refused. The depression is exceptional, and is the result of exceptional conditions of weather such as we do not experience in one season out of 20.

The local grain market was interrupted the past

week by a two-days' holiday. For wheat, the rest seemed to have done some good, notwithstanding a generous and general rainfall in the State, as the market on Monday opened stronger and fairly active in sympathy with a slightly better feeling abroad. The favorable influences on the European markets have been noted from time to time in this department, but the improvement in values is not as marked as it was expected it would be by this time, yet many look for a higher range within the next 60 days, based on the supply and demand. In our market, there is a quiet, stubborn bear element that is decidedly bent on keeping values down, and to accomplish its object, does not leave a stone unturned. Just now their favorite warfare is the promise of a large crop in this State. While this is true, the supply markets of the world will probably have less to spare, and the consumption in the demand markets will be larger. Aside from this, we will have a large increase in the supply of tonnage, owing to the light wheat crop in Australasia, forcing vessels in the Australia, China and European trade to come to this city for cargoes.

Barley the past week settled to lower figures, owing to the rains and improved prospects. There is a fair selling pressure, which causes more or less timidity on the part of buyers. The stock in this city is largely of the poorer grades, which necessarily have a depressing effect on the other feed grades. The rains, it is claimed, will so far improve the pasture as to lessen the consumption, which began to show signs of steadily improving. Choice grades of barley are not in overstock, and consequently show considerable firmness. The present outlook for the crop is very good.

Oats are without essential change. The general tone continues weak, owing to the reported heavy supplies up north that can be drawn from as occasion demands.

Corn is fairly steady. The feeling appears to be of an offish character, which will hardly be changed until the season is further advanced. The large supply in the corn belt east of the Rocky mountains naturally has a depressing influence with us. The consumption is only fair.

The rains of the past week are reported to have laid the larger proportion of the wheat plant on the summer-fallow land, but on the river bottoms and land lately seeded good will result. Mr. A. D. Logan, who probably is one of the best informed of the outlook in the counties of Colusa, Butte and Yuba, confirms the above and adds that with our usual spring rains the plant will be of too rank a growth and the return of grain not as large as it otherwise would have been.

Fruit.

Apples are growing scarcer, causing strong prices to rule.

Dealers in this city expect a heavy crop of berries, larger than last year. They also say that tree fruits promise a larger crop than last year. This opinion is based on more trees coming into bearing, and the weather being of the best for the orchards.

California limes are in limited supply, but Mexican are in heavy stock and only placed at low prices.

California lemons are in large supply and sell only at concessions.

Notwithstanding the receipts have been heavy, the market for oranges held up well. The consumption is not only large, but steadily growing. The shipments out of the city are quite free, chiefly up north. The supply of good to choice Navel has been quite liberal, but of seedless only fair. The heavy offerings of poor to fair are against the market, for hucksters and a large number of dealers take the poorer at the lower prices at which they are sold. It is claimed by a dealer here that Eastern buyers have operated quite freely at Riverside, causing many growers to advance their views, while another large dealer says that equally as good, if not better, prices are netted to the grower by selling in this market than at home. The market at the close appears to have a better tone.

In dried fruits, the market appears to be shaping into better position for the selling interest. Several large dealers realizing this, bought the past week for their spring trade. The stock here of the more choice is claimed to be light.

Raisins have been more inquired for, but buyers want concessions. The stock of choice is light, which creates, with the most of holders, a firmer feeling.

Feedstuff.

In ground feed, since the rain, the feeling does not appear to be so strong, due to the impression that the natural feed will improve. The output of the mills is not large.

Hay is steady with a fairly firm tone for the better grades, but the poorer are in buyers' favor. Free receipts by rail of consignments to be sold necessitates concessions, so as to save expense; this operates against the market. The consumption continues good.

Hops.

The *Mark Lane Express*, Feb. 4th, reports the English market as follows: During the last few days the feature of the hop trade has been an advance of 20s per cwt. on the Washington and Oregon hops, the demand for which is great. The stocks are almost exhausted, while orders have arrived to reship American hops to New York, and other parcels have been taken off the market to await instructions. Yearling Californian and American are now wanted. The advance noted last week on English hops is fully maintained, many of the most desirable qualities having gone into consumption during the past week. The demand to-day for all sorts is good, and the market has an upward tendency all round. A further serious decrease of the hop acreage in Mid Kent is reported, and there is a great deposit of aphid eggs on the plum trees. A short crop on a short acreage, with no stocks, would mean very extreme prices.

In the local market there is a stronger feeling, but trading is restricted, owing to the small obtainable supplies of the better grades.

Live-Stock.

Bullocks are selling for less money, although the more choice that cut up without wastage fetch outside quotations. Lambs are offering quite freely. Sheep are shading off, yet concessions are obtained with difficulty. Milch cows are fairly steady at from \$30 to \$45 per head for dairy. In horses there is nothing new to report.

The market for dressed cattle is quoted as follows to obtain the price on foot, take off from the

price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent:

HOGS—On foot, grain fed, 6 1/2 @ 6 3/4c @ lb.; dressed 9 1/2 @ 10c @ lb.; soft, 5 1/2 @ 6 1/4c @ lb.; dressed, 8 1/2 @ 9 1/2c @ lb. Stock hogs, 4 1/2 @ 5 1/2c @ lb.

BEEF—Stall fed, 6 1/2 @ 7 1/4c @ lb.; grass fed, extra 6 1/2 @ 6 3/4c @ lb.; first quality, 6 @ 6 1/2c @ lb.; second quality 4 1/2 @ 5 1/2c @ lb.; third quality, 3 1/2 @ 4 1/2c @ lb.

VEAL—Small, 8 @ 9c @ lb.; large, 7 @ 8c @ lb. MUTTON—Wethers, 6 1/2 @ 7c @ lb.; ewes, 6 1/2 @ 6 3/4c @ lb.; lamb, spring, 12 1/2 @ 15c @ lb.

Vegetables.

Garden truck continues to come in sparingly, but the outlook at present warrants the assertion that the output will be larger this spring than ever before, owing to more attention given to their cultivation. The peas that are coming in are not well filled, and consequently do not sell at as good prices. String beans come in slowly. Tomatoes still sell at high prices, owing to light receipts. Asparagus is coming in more freely.

Choice old potatoes have met with good sale the past week, the demand being for both local use and shipment. Poor qualities are hard to place except at concessions. New potatoes are coming in quite freely, with the quality showing a decided improvement. The demand is only for local consumption.

Choice, good-keeping onions are in light supply, causing good prices to obtain. Poor onions are hard to sell, except at low prices, and even then custom is slow.

Miscellaneous.

In poultry, young, well-conditioned fowls are wanted, but old are slow. The demand is about equal to the receipts.

Beans are reported to be unchanged. The supply of choice is steadily decreasing.

Considerable of a movement has taken place in nuts, particularly in almonds. The tone for the more choice appears to be stronger at the close. Honey and beeswax are essentially unchanged.

In seeds, alfalfa is fetching a slight advance.

From the *Commercial News* of Feb. 27th, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	194,035	229,281
On the way to neighboring ports 47,658		88,788
In port, disengaged.....	33,308	41,152
In port, engaged for wheat....	42,230	45,796
Totals.....	317,231	405,017

To get the carrying capacity, add 26 per cent to the registered tons as given above.

From July 1st to Feb. 27th, the following are the exports from this port:

	1889.	1888.
Wheat, cts.....	9,487,411	6,355,522
Flour, bbls.....	497,114	493,037
Barley, cts.....	1,223,287	442,395

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

BEANS AND PEAS.		Paper shell.....	12 @	13
Bayo, cti.....	2 00 @ 2 50	Brasil.....	8 @	10
Butter.....	2 50 @ 3 01	Pecans.....	10 @	17
Pea.....	1 75 @ 1 85	Peanuts.....	4 @	6
Red....	2 00 @ 2 30	Filberts.....	10 @	12
Pink....	2 00 @ 2 15	Hickory.....	5 @	8
Large White.....	— @ —	POTATOES		

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CUTHBERT RASPBERRY.



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JUST ARRIVED, per Galic, in fine condition, round and long fruit Camquots (in bearing), Tamba Mammoth Chestnuts, Plums (To Sumomo), Pears (nikad), Camellias (very fine large variegated flowers), Olea Fragrans for Shade and Fragrance, Maples, Fan Palms and Cycas Revoluta, Azaleas and other shrubs.

Four more Japanese Gardeners came to us, making 46 in our employ in various parts of the State, caring for our stock and planting out Japanese Trees on shares and otherwise.

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Bless Your Souls! My brother farmers, why pay 10 or 20 cts. when you can receive one containing just as many and very probably more varieties, and all new vegetables that are really wanted, for just **NOTHING**? It may have less paint about the covers, but, great Scott! we are not after paint, but seed, fresh and true to name, such a seed will make with a master's hand, soon bring you a great farm and garden; send I can tell you. **WARRANT** on the cover of my catalogue. I am, my friends, a farmer, and in the then and, who for thirty years have been users of my seed; why, we were a family company and having pleasant times together before the great war, I had the first seed of seedsmen "bless the boys." I had left their name and seed. Send for a catalogue.

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MANUAL OF EVERYTHING
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For 1889 is the handsomest and most complete Garden Guide ever published. It is really a book of 110 pages, size 9 x 11 inches, contains three colored plates, and illustrations of all that is new, useful and rare in Vegetables, Flowers, Fruits and Plants, with plain directions "How to grow them," by

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Trees in varieties. Address,F. LUDEMANN,
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Trees and Cuttings.CABERNET SAUVIGNON,
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MATARO AND CARIGNANE,
RIPARIA, GRAPE ROOTS & CUTTINGS,
\$5 per thousand.White Adriatic Figs grown and packed by me for sale
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ADRIATIC and SAN PEDRO FIGS.

French Walnuts, Home-grown Oranges and Rooted Grapevines.

Illustrated Catalogue and Price List for the season of 1887-88 free to all sending for them. All Trees, Vines,
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A full line of Fruit and Ornamental Trees, Shrubs, Vines and Hothouse Plants.E. C. CLOWES, Proprietor
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BESIDES A LARGE STOCK OF THE GENUINE

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Guaranteed, and the NEW LYONS CLING PEACH. We have an immense stock of ROOTED
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Send for Catalogue and address all correspondence to FRESNO, CAL., Box 175.

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Choice Budded Varieties, including the

GENUINE RIVERSIDE WASHINGTON NAVEL,

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We grow our own Trees and have the largest stock of budded Orange Trees in Riverside.
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All 1-year-old. No. 1 stock.BARTLETT AND CLAPP'S FAVORITE
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Onion Sets, Grass, Clover, Vegetable
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BARTLETT PEAR TREES

The best kind for Shipping and Canning.

General assortment of all kinds of

FRUIT and ORNAMENTAL TREES,

Including

ORANGE AND LEMON TREES.

Also, a large stock of imported Fruit Tree Seedlings,
Apple, Pear, Myrobalan Plum and Mazzard Cherry.
A large stock of dormant buds, heavy-rooted.
Send for prices.J. T. BOGUE,
Marysville, Cal.

Formerly of Martinez, Cal.

RIVERSIDE

Nursery and Fruit Farm,
Lodi, Cal.

JAMES A. ANDERSON, Manager.

A CHOICE COLLECTION OF

FRUIT, SHADE & ORNAMENTAL TREES,
Shrubs, Vines, etc., both wholesale and retail at
Lowest Rates.SPECIALTIES—Nonpareil Almonds, I X L Almonds,
Royal Apricots, French Prunes, Bartlett Pears, Choice
Peaches in variety. Catalogues on application.

91,700 ORANGE TREES

Shipped to California last season and arrived in good
condition. All the leading varieties. Largest stock in
Florida. Send for Illustrated Catalogue. Special prices
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Altamonte Nurseries.

Muscat Cuttings and Rooted Vines

FOR SALE IN LOTS TO SUIT.

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15,000 two-year-old No. 1 Pear Trees, mostly Bart-
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The Aspinwall Potato Planter

SPECIAL ADVANTAGES:

No farming tool has ever done more accurate and rapid work, and we strongly question whether any implement (character of work and quantity being taken into consideration) has proven itself to be of such financial advantage to the farmer. We make strong claims for our Potato Planter, knowing that we can fulfill every one of them.

The cost of raising potatoes becomes greatly reduced by the use of our Planter, and to a potato-grower who raises much of an area the machine will pay for itself in a single season.

The Planter is capable of being adjusted to plant either cut or whole seed 10, 13, 15, 17, 21 and 26 inches apart; also, different depths, and shallow or deep covering can be practiced, as desired.

The distance of planting is exactly the same in each row.

The work is far superior to hand planting. The rows are straight, and, the furrows being V-shaped, the seed must necessarily be deposited in a perfect line; this enables close and early cultivation.



Please note the fact that dry or top earth is not drawn over the seed by the covers of our Planter, but, on the contrary, the moist or under earth is drawn upon the seed, a feature that every experienced potato-grower will appreciate, as nothing is more fatal than to cover cut seed in a dry time with dry earth.

The planting can be done from 3 to 9 inches in depth and the covering is uniform.

From 5 to 8 acres per day can be planted, and the entire work of marking, furrowing, dropping and covering is done in a single operation.

The Planter is well made and very durable, and with proper care will last many years.

There is no great strain on any of its parts, being entirely free from any cog gear and fast motion. The speed of the mechanism of the Planter is no faster than the movement of the ground wheel.

We give an absolute guarantee that our Planter will do all we claim for it.

For Further Information and Prices, Address:

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A DRY SEASON MADE WET!

BY USING THE

IMPROVED DAVIS WINDMILLS.

IRRIGATING WINDMILLS a Specialty.

35 YEARS IN CONSTANT USE.

Ask parties who have used the Improved Davis what they think of them.

NO EXPERIMENTING!

Every Mill Warranted
to Satisfy!

TESTIMONIAL.

MERCED, CAL., Oct. 17, 1888.

Mr. R. F. Wilson—DEAR SIR: You have my permission to use my name as reference in your catalogue. Your mills have given entire satisfaction. Yours truly,

C. H. HUFFMAN, Pres. Merced Canal and Irrigating Co.

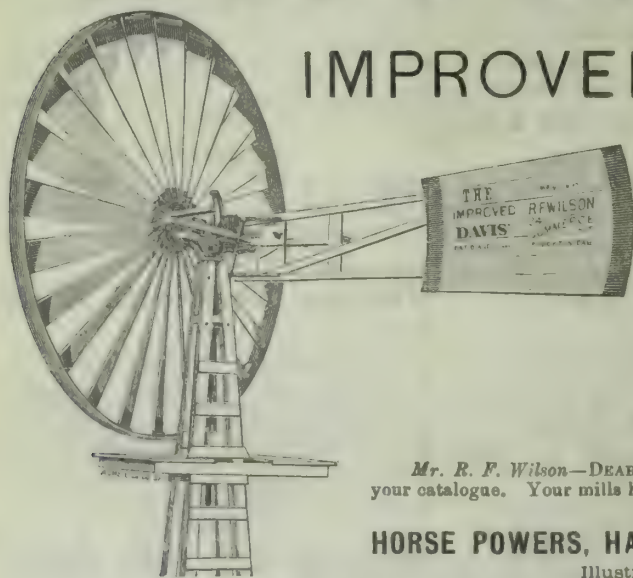
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SAMUEL BRECK.

HARDY NORTHERN-GROWN

SEEDS!

Grass, Farm and Garden Seeds,
Plants, Trees and Bulbs
IN STOCK.

Correspondence solicited. Send for Catalogue, Free.

WESTCOTT & BRECK,

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DEVON CATTLE.

For several years our herd has stood out at the head, taking leading prizes at all the great fairs. Hardy, easy keepers and good for the dairy, makes them the best general purpose breed. Stock singly or by carload. State what you want and ask prices.

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VICTOR and NILES SORGHUM and SUGAR MILLS,

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FRUIT EVAPORATORS,

BLMYER CHURCH.

SCHOOL and FIRE BELLS.

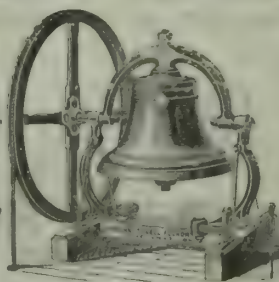
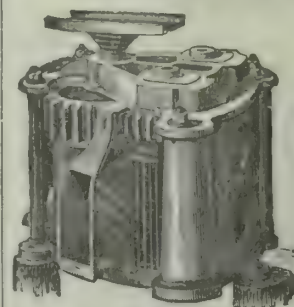
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Steam Engines & Boilers,
Draw Cut Choppers and
other Butcher
Machinery.

Enterprise Windmills, Hawkeye Horse Powers, Hawkeye Wood Saws, Sybry, Searls
& Co.'s English Mining Steel, Dickert and Myers Sulphur Co., American
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Sorghum Growers.
We ship Goods to purchasers direct from Factory, or deliver from San Francisco, whichever is most
advantageous to purchasers.



H.H.H. HORSE LINIMENT.



THE H. H. H. Horse Liniment puts new life into the Antiquated Horse! For the last 14 years the H. H. H. Horse Liniment has been the leading remedy among Farmers and Stockmen for the cure of Sprains, Bruises, Stiff Joints, Spavins, Windgalls, Sore Shoulders, etc., and for Family Use is without an equal for Rheumatism, Neuralgia, Aches, Pains, Bruises, Cuts and Sprains of all characters. The H. H. H. Liniment has many imitations, and we caution the Public to see that the Trade Mark "H. H. H." is on every Bottle before purchasing. For sale everywhere for 50 cents and \$1.00 per Bottle.

For Sale by all Druggists.

PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXVII.—No. 10.

SAN FRANCISCO, SATURDAY, MARCH 9, 1889.

\$3 a Year, in Advance.
SINGLE COPIES, 10 CTS.

A Fine Shorthorn.

We give herewith a striking likeness of a fine animal now standing at the head of one of the leading Shorthorn herds of California—that of P. S. Chiles of Davisville, Yolo county. Mr. Chiles is a strong advocate of Bates' blood, and holds to the doctrine that the greatest concentration of Bates' blood combined with due regard to the highest type of individual excellence, furnishes the safest standard for success—

high as \$5000, while it was not uncommon a few years ago to hear of sales of females from \$2000 to \$4000 each.

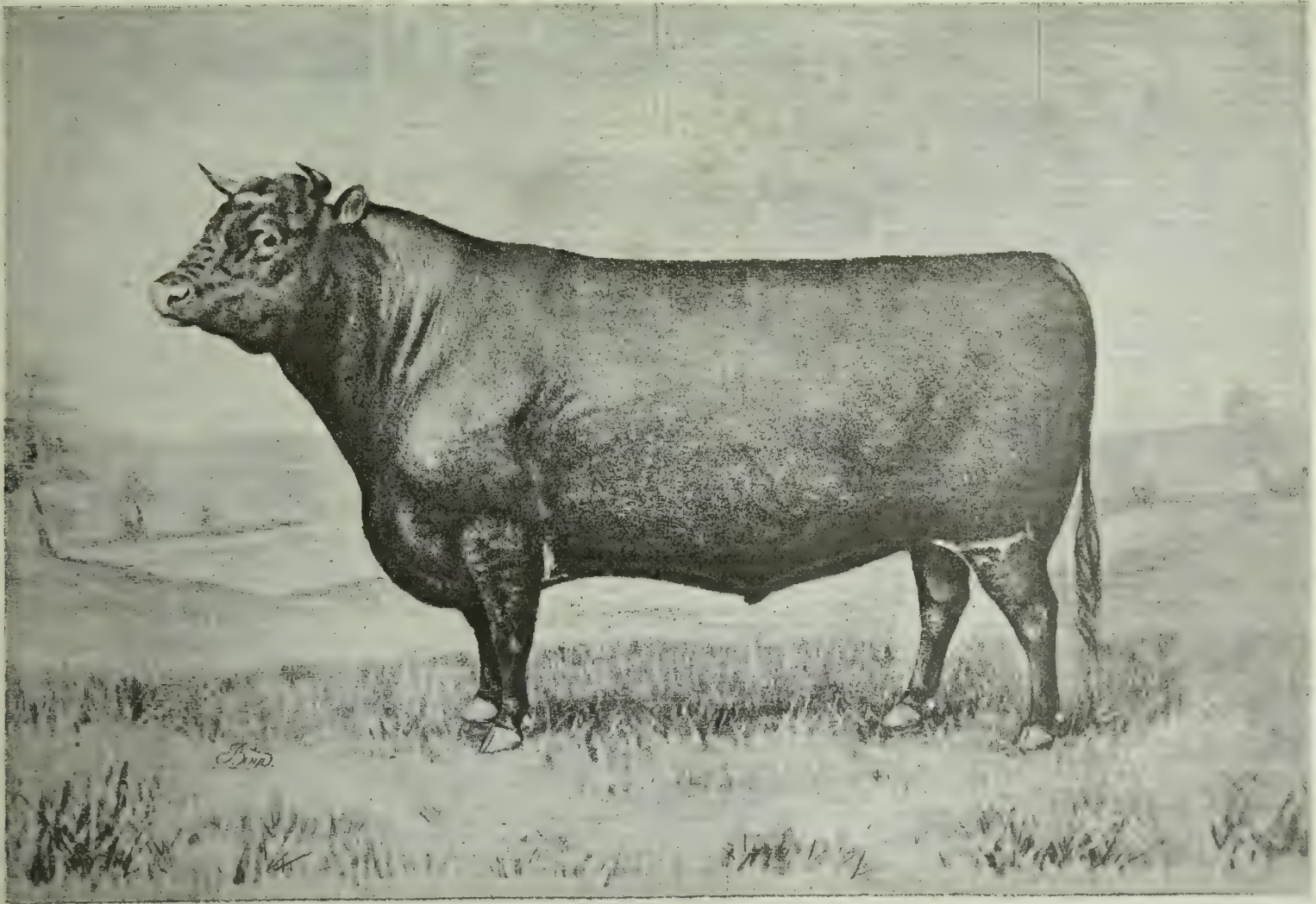
Kirklevington Oxford Count's sire was Kirklevington Duke 2d, a pure Bates of the favorite Kirklevington tribe; 2d sire, 8th Duke of Vine-wood, a pure Bates of the Cragg tribe; 3d sire, 2d Compton Lord Wild Eyes; 4th sire, The Baronet of Stevenson's Red Rose Princess tribe; 5th sire, Exported Lord Oxford, sire of the famous Lady Mary princesses, which sold

By Rail or Water.

At present the outlook does not seem favorable for much reduction in freight rates the coming season. The experience of the shippers of canned goods has been most disappointing. As we recently stated, they applied for a reduction so as to bring them somewhat nearer the rate which the Baltimore packers have to pay to get their goods to Chicago and other Western points. Of course they did not expect to

canned stuff into the Lake City market at a cost of 77 cents a hundred, exclusive of wharfage, insurance and other items.

Counting these extras and the time lost, the margin to be gained by sea shipment is small, but still we hope it may be wide enough to warrant the undertaking. It would be a very useful lesson to the railways, and in fact about the only style of argument they have any respect for. If the rails can be beaten without loss now, the effect on the coming season's



SHORTHORN BULL KIRKLEVINGTON OXFORD COUNT 36,723 OWNED BY P. S. CHILES, DAVISVILLE, CAL.

ful Shorthorn breeding. In his selection of breeding stock and in their management he has thus striven for the best descent and the highest individual quality and vigor, and has preserved these characteristics by refusing to incur the risks which attend pampering and effort for show points. He keeps his animals in good breeding condition and considers them, therefore, safe both for his own use and for his distant customers.

The bull at the head of the herd is Kirklevington Oxford Count, as already stated. He was bred by M. W. Anderson of Missouri and was calved Sept. 23, 1883. As the engraving shows, he is solid red, save the slight white marking, which the artist has shown. His dam is Wild Eyes Craggs 21, and he is rich in the blood of the celebrated Craggs family, of high value not only for its possession of most fashionable blood, but for its great worth in individual excellences. Bulls of this tribe have sold as

for over \$5000 each, etc. These few notes from the "long pedigree" of Kirklevington Oxford Count will serve to indicate his lines of descent, and to give extra significance to the fine view of the animal which the artist has secured.

Mr. Chiles has his herd well fortified on the side of the females. Four years ago he brought in two carloads of young cows from the East, consisting of members of the following well-known families: Rose of Sharon with top crosses of Craggs, Young Marys, Dulcibellas, Arabellas and others in like favor with Shorthorn breeders. These animals with their offspring comprise one of the most attractive collections to be found anywhere.

THE bill making train robbery a capital crime, introduced in the Legislature of Arizona by Louis Martin of Pima, was passed by both Houses and was signed by the Governor, making it a law in Arizona.

get very near to that rate, but hoped to be relieved from a rate which is almost prohibitory. Instead of gaining a concession they were paralyzed by an advance. Telegraphic advices from the East state that the telegraphic ballot taken by the 22 lines in the Transcontinental association on the request of the canned-fruit shippers of this city for a 90-cent rate on their commodity to all Eastern points, has resulted in a failure to agree on the proposition. The \$1.20 rate, which was threatened, has gone into effect, and about 300 carloads of canned fruit are locked up in this city.

The city holders of canned goods make a proposition which we sincerely hope they will successfully carry out, and that is to charter a ship and send the 300 carloads of fruit around the Horn. It is said that by this means of transportation the rate to New York would be about 55 cents a hundred, which, added to the 22-cent rail rate to Chicago, will put the

operations will be good, for the goods can be shipped earlier, or, what would be more probable, the rail rate would be dropped to get the trade.

CITY AND COUNTRY MEMBERS.—We notice that one critic on the existing Legislature says: "It is rather singular that it should be the rural communities which furnish the best educated, and that city members are, taken as a whole, behind them." It is rather late in the day to claim that residents of the country are ignorant. So far as California goes, we should expect to find the average rural intelligence higher than the average municipal. But leaving this wholly out of the question, it is not singular that the facts, so far as representatives in the Legislature are concerned, should appear as the critic notes them. The way primaries and elections are conducted in the city points clearly to the fact that the best men are not, as a rule, chosen as representatives.

HORTICULTURE.

Drying and Packing Peaches.

EDITORS PRESS: In the PRESS of Feb. 9th, "Grower" of San Jacinto, Cal., asks information as to the drying and packing of peaches, and being ever ready to assist those who have seen the folly of raising wheat and embarked in the culture of fruit, I will give the "Grower" the result of my experience and observation in drying and packing peaches.

I will consider, first, the treatment of what is known to the trade as "skin" peaches, as that kind is the easiest taken care of and bring a fairly good price.

Paper or Cloth Trays.

"Grower" says he has 20 acres of trees that will bear this year. The best way for him to proceed is this: Get lumber about 1 inch by 1 1/2 inches and saw it into lengths of, say 6 feet. Next, nail strips of same size lumber from one piece to the other, about three or four inches from either end. Nail strips of batting under the long pieces at intervals of about six inches. The best way I can illustrate this is by reference to a bed-frame and the slats. After your form of tray is made, cover it with heavy manilla or other coarse paper, or muslin, in the best way possible. Some fruitmen make their trays of pine or redwood shakes. This is ruinous, as all fruit dried on such trays absorb some of the pitch in the pine, or the peculiar odor of the redwood shake. The plan I have suggested of making "paper" or muslin trays is a slower way and probably more expensive than the manufacture of the shake tray, but the superiority of the paper tray over the shake article is apparent. The paper trays are lighter, and, again, do not give any smell to the fruit as pine or redwood trays do. This odor imparted by shake trays is one thing that lessens the price of dried fruit in foreign and domestic markets.

Boxes, Tables and Benches.

We will suppose now that the fruit is in boxes, ready for cutting. It is best to have the fruit in boxes holding 40 or 50 pounds, as they are easily handled, and the wages of "cutters" can be adjusted by the size of the boxes. If "Grower" has prospects of a large crop, and intends to go into the business for good, he might have tables made, like common kitchen tables, about seven feet long and three feet wide, or as wide as his trays. He should also have benches as long as his tables, say seven feet. Three girls or women can sit on each side of these tables and have room between them for the box of fruit they are to cut.

If he has cling peaches he should buy the regular spoon-shaped knives used in large canneries, but if he has free stones he can use the common shoemaker's knife. All fruitmen furnish knives for their cutters.

"Grower" must place the trays on the tables, have a "box-packer" for every 40 or 50 cutters, and two "tray-carriers" for the same number. The fruit is cut and laid "center up" on the trays, the halves not to touch each other. The stones are taken out, of course. When the trays are full, the "tray-carriers" take them off the tables, carry them to one side out of the way, and stack them up, one above the other, and put empty trays back on the tables.

"Grower" should have tickets of cardboard about 3 inches long by 1 1/2 wide, on which the numbers from 1 to 20 should be printed, leaving a space at the top for the "cutter's" name. He should provide the "box-carrier" before mentioned with a conductor's punch. When the cutter has cut a box of peaches, he punches out a number and throws the empty box to one side, so the cutter cannot "double up" on him. These "tickets" should be dated and handed in every night and new ones given out in the morning. At 10 cents a box the weekly wages of the cutter can be summed up every Saturday afternoon. Pay every Saturday night for the work done up to Friday night. This gives the "timekeeper" a chance to figure out, from the punches on the tickets, the wages of the cutter. Cutters are paid from Friday night of one week to the same night of the next week.

A Cutting Shed.

"Grower" should construct an open shed for as many tables as he wishes to have. There should be aisles between them about six feet wide, and at the end, of about two or three feet on the same principle as tables are arranged in a large dining-room. Near this shed he should build his "sweat-room." It should be about 25 feet square. It should have double walls, each as tight as possible. A space of six inches or more should be between the walls, to be filled with sawdust. This room should have a window and door, both of which could be fitted air-tight to their place, if wanted. The floor must be air-tight.

Sulphuring.

All fruit must be "sulphured" if it is to be dried. Sulphur bleaches it and kills any small insects that may be in it. Such insects are generally in the openings in the skin of the fruit. Air-tight boxes should be made about eight feet long, four feet wide, and four or five high. Have them air-tight by all means. Place two fruit-boxes on level ground and pile your trays on them, the boxes to be under each end of the trays. A space of about one foot should be between the top tray and the top of

the box when it is put down over the trays. Have a tin or sheet-iron pan about a foot in diameter with a rim an inch high, or rather two inches. Put a handful of fine shavings, or a small piece of paper crumpled up in the pan, and throw about an even double handful of good sulphur on your paper or shavings. Light the paper, shove your pan under the trays, and let the box down over the trays. Shove dirt all around the box where it rests on the ground to keep in the sulphur fumes. Be sure your sulphur burns. Leave the trays in the box about 10 minutes or 15, or even 20 minutes or more, if you are not rushed for time. Fifteen minutes is about the length of time to sulphur 12 or 14 trays of fruit. Have handles on one end of your sulphur box, that it may be easily lifted up on end. Use the best sulphur. Two good men can run six or eight sulphur-boxes. By the time they "make the round" the fruit is ready to take out.

Sun-Drying.

The best plan is to have a track and a car or two, to take the fruit to the ground on which it is to be dried. Lay the trays on the ground and the fruit will dry in two or three days, according to the heat of the sun. Leave them in the sun until the juice is all evaporated and until they are soft and yielding as raisins. Never let the fruit be left in the sun till it has become hard, or it can never be made as soft as it should be.

"Grower" had best engage a "yardman" who understands his business and trust to him. After the fruit has dried enough, scrape it from the trays into boxes and take it to the "sweat-room." Dump it on the floor in big piles and let it sweat until a quantity has been housed, say two or three tons, as it won't pay to fool with little lots every day or so.

Dipping and Packing.

Now as to packing. To do it quick and in a professional manner, "Grower" should have an iron kettle or tank holding 50 or 60 gallons. The best way is to heat the water in this kettle by steam from a boiler, admitting the steam through a pipe, entering at the bottom of his kettle. Have a stop-cock to control the steam. Have a sheet-iron bucket made to hold 40 or 50 pounds of dried fruit. Suspend a pulley over your kettle of hot water, attach a rope to your bucket and run it through the pulley, having it long enough to enable the dipper to use the other end of the rope. Your bucket must be perforated to permit the escape of the water when the fruit is dipped. Fill your bucket two-thirds full of the dried fruit from the sweat-room, submerge it in the boiling water, haul it out at once and dump it on tray, which can be carried away and stacked up in another part of the building.

"Grower" should have a "night crew," and this should be done at night, for by the next morning the fruit is just right to pack.

Facing.

On the tables of some of the "green fruit force," put the trays of the fruit dipped the night before. The girls then pick out the "facings." This is the best fruit obtainable in the lot. They should be the size of a silver dollar, a good "peachy" color and free from brown blisters, cuts, or warts. "Grower" should have his boxes made minus the bottom, that is, when the open side of the box is up, the label or box brand should be inverted, or upside down. The girls then put in the "papers." The first is generally common or good "news" paper cut in the form of a Maltese cross. It is for sale by paper houses. The "bottom" of the box and the sides are lined with this paper, then an advertising lithographed card about the size of the box is put in, and on the top of that is placed a sheet of oiled "tissue" paper. These papers are sold by the trade.

After these papers are in the box, the "facings" are put in, the outside down. Two layers of "facings" are put in, the top layer covering the holes between the "facings" of the bottom layer. The "boss" punches a ticket number for every "box of facings," and the boxes are taken to the

Weigher's Table.

This table is generally 10 feet long, with boards 1 foot wide around the edge. This table will accommodate four weighers. After the "facings" have been picked out of the trays of dried fruit, "carriers" take the trays and dump the picked-over fruit into the weighers' table. The weighers then put the requisite amount of fruit in the box on top of the "facings." The "pressman" puts a frame down over the box, places a damp "press board" on top of the fruit, and puts the whole thing under the press, comes "down on the handle," jerks the box out of the press, takes off the "boards" and the "form," and gives the box to the "first nailer." He nails the bottom on and turns the box over to the "second nailer," who strengthens the box all around by additional nailing. The box is then ready for branding. When the box is turned over and the "real top" taken off, the beauty of the carefully laid "facings" sells many a box. The plan of packing, peaches, apricots, pears and nectarines, is just the opposite of raisin-packing. In raisin-packing, as many know, the "filling" is put in first, then it is pressed, and the "facings" are then put on.

I have given just the manner of preparing the "skin" peaches, as they are called. "Peeled peaches" are prepared somewhat different, but the mode of preparing them I will give in another article. I have given details in this article for the benefit of "Grower" and

any others ignorant of the subject. I will be happy to answer any letters on the subject from any one. In such a limited space I cannot fully explain all things, and to those who enclose a stamped and addressed envelope I will make all points as plain as possible. [It would be more widely useful to have the answers published in the RURAL, and we can well give space to such a discussion.—EDS. PRESS]

Notes.

Make your cutters leave a space of six inches at each end of your trays so that no fruit will be shaken off in handling the trays.

Use 1x1 1/2 stuff in making the side pieces of your trays. Place the six-foot strips on their narrowest edge and nail your batting on the upper edge and stretch your muslin or paper over the batting. By following this out there will be a space of an inch or more under the trays when they are placed on the ground, which admits the free passage of the warm air under the trays. Again, in stacking the trays, the side strips rest on the tray beneath and prevent the mashing of the fruit. It would be well to nail a thin strip about an inch wide along the edge of the trays, to prevent the fruit from sliding off the sides.

If you build an open shed for your cutters to sit under, have it closed or shaded on the south and southwest sides to keep out the sun. Build your shed in a cool place and have cool water near, and a sufficient quantity of it, for during hot weather about one per cent of your female cutters will faint if they have the least chance. Heat, the excitement of talking, or a slight cut with a knife, will produce hysteria and fainting spells, and you must, to a certain extent, provide for such fainters.

Pay your sulphurmen \$2 a day, for their work is worth every cent of it and more. If you don't think so, try it yourself for a week. Pay your other men \$1.50 a day and your cutter 8 or 10 cents a box.

Your "ticket puncher" must be a person you can trust, for he really controls the wages of the cutters.

See that the man who distributes the boxes of fruit to the cutters is impartial to the last degree, for if a particular girl or woman is favored the rest become a howling mob.

Allow no squabbling or bickering, for, as a rule, all work ceases while such disputes last. Sun-dried fruit does not require turning, although some do turn it.

Do not shade fruit that is being dried in the sun, for it is put in the sun to dry.

Dried fruits sell best in 20 pound boxes; green, in about 40-pound boxes. Fancy "facings" are packed in paper-boxes known to the trade as "cartoons," weighing about one pound. These "cartoons" are embellished with much lace paper and gilt paper, and are the choicest "facings." They sell from 50 cents to \$1 for the pound boxes. These fancy facings are sometimes packed in boxes of 5 or 10 pounds, similar to the boxes in which "London Layer" or "Dehesa Cluster" raisins are packed. Every packer establishes his own size boxes, although 20-pound boxes are the most popular. "Grower" can buy boxes to hold 20 pounds at any box factory. Fruit should be picked before it is "mushy." Common sense will tell one when it is ripe.

Paring machines are used to peel pears. There is a patent machine now used that pares, slices and cores a pear in about 5 or 10 seconds. It resembles the common apple-parer and is worked the same.

Tulare, Cal.

J. OLIVER.

THE FIELD.

Steam Plowing in Yolo County.

The Woodland Mail has the following mention of the use of steam-power for farm work, as witnessed by a representative of that paper:

Friday morning we visited Grand Island and witnessed W. C. Curtis' revolutionary operations as a "tiller of the soil." It was by a delightful drive, through miles and miles of luxuriantly growing grain, that about midday we reached the tule lands of Grand Island, where Mr. Curtis was found gleefully watching his immense steam horse turning over the rich and virgin soil at the rate of 50 acres a day.

The body of land upon which the traction engine is at work consists of 5000 acres of tule land, which Mr. Curtis leases from Colonel George Hager of Colusa. It is located on the northeastern borders of the county, about 12 miles north of Cacheville. The land is under levee, but never a plow-furrow cut it until this year.

As one sees with what apparent ease the engine drags its four 12-inch 2-gang plows through the black adobe, interlaced with tule roots, the first wonder is that so small a motor is heavy enough to do the work. The engine, however, weighs nine tons, and with a 10x10 cylinder figures 25 horse power. The engine makes 160 revolutions per minute, which, by a system of cog-wheels, is reduced to 12 revolutions per minute of the drive-wheels. These are about six feet in diameter, with a tire two feet wide.

Imagine a large thrashing machine, with an immense locomotive cab built over the furnace-end of the boiler, mounted upon a ponderous truck, the hind wheels of which do the propelling and the forward and smaller wheels, under control of the engineer, do the steering, and

you have the traction engine in your mind's eye. The broad tires of the driving-wheels are clad with iron bars an inch thick every four inches, so that it is never necessary to throw "sand" in the track of this locomotive to keep its wheels from slipping. The length of engine over all is about 20 feet, and its train of four gang plows, attached one after the other, form one immense gang plow 80 feet wide and about 30 feet long. The speed attained is fully that of a fast horse walk at the plow, or about 2 1/2 miles per hour.

Mr. Curtis keeps the engine and its work going night and day by two shifts, the night force and the day force. The men eat their meals while plowing. In the night, strong lamps with reflectors, placed as headlights and rear lights, enable the work to go on without any hindrance whatever.

The engine's utmost speed would be 60 miles a day; but, of course, this makes no allowance for stoppages to take on fuel, water, etc. Under ordinary circumstances such delays reduce the distances traveled to about 50 miles in 24 hours. The eight 12-inch gangs cut a swath of eight feet or half a rod; so that for every mile the engine travels, it turns under a square acre of sod—thus accomplishing by a good day's run of 24 hours the plowing of 50 acres.

To do this same work in the same time, it would tax to the utmost endurance 64 head of good horses or mules; it requires eight and sometimes ten horses to manage one 12-inch gang in the tules.

The plowing executed by this steam-horse is first-class. The engineer has it under perfect control at all times, and with great ease runs his furrows as straight as a railroad survey. The engine holds the plow-beams so steady and firm that the plowing is very uniform and the sod is turned thoroughly to a depth of five inches.

The capacity of the boiler is three barrels of water, and when at work carries from 100 to 120 pounds of steam. The fuel consumed in 12 hours' run is 1 1/2 cords of willow wood. It is only partially seasoned, and to stimulate steam production a half barrel of crude petroleum, worth \$1, is burned with it on a daily average. With dry wood no petroleum would be needed.

The force of hands employed to run this traction engine is as follows:

	Daily Wages.
Engineer (day shift).....	\$2 50
Fireman.....	1 00
Water-hauler.....	1 00
Engineer (night shift).....	2 50
Fireman.....	1 00
Water-hauler.....	1 00

Total.....\$10 00

To this labor bill for the 24 hours should be added:

Cutting three cords of willow wood.....	\$3 00
One barrel petroleum.....	2 50
Keeping eight horses.....	4 00
Interest on \$4000 invested in engine, horses, wagons, etc.....	1 00
Board of seven laborers.....	3 50

Total.....\$14 00

Daily wages.....\$10 00

Other running expenses.....14 00

Total cost running steam plow 24 hours.....\$24 00

Thus it would appear that the running expense of this steam-plowing outfit is, approximately, \$1 per hour. It is safe to say that Mr. Curtis can easily plow 48 acres with his engine at the cost of running it. Making another simple reduction from these facts, we find that it is costing him 50 cents an acre to plow by steam. It should be remembered that this is the result of his test upon heavy tule land.

Supposing that Mr. Curtis were plowing 48 acres per day by mule and horse power, what would the figures be?

Wages of eight men.....	\$8 00
Keeping eight horse teams.....	32 00
Board of eight men.....	4 00
Interest on \$10,000 invested in stock, harness, gang-plows, etc.....	2 25
Blacksmithing, horse-shoeing, etc.....	1 75

Total.....\$48 00

If these figures are correct, it is proven that the cost of plowing by the old method is at least \$1 per acre, as against 50 cents per acre by the steam process.

In our estimate above the item of fuel includes only the cost of cutting the wood, \$1 per cord. As a matter of fact, he does not consider the wood out on the place an item of cost, but figuring the fuel at its market value, the total cost of his steam plowing per acre is not over 62 1/2 cents.

On the other hand, it is not believed that an average eight-horse team can get away with six acres of this new tule land per diem. A good authority informs us that five acres of such land is all that eight good mules can work, five inches deep, from daylight till dark. At this rate plowing by steam would cost Mr. Curtis \$1 20 per acre, making the difference still greater.

The wear and tear of machinery is not to be compared to the loss of stock that die or are crippled from natural and accidental causes, or are "stove up" from overwork.

Mr. Curtis has such faith in steam as against horseflesh that he is having built for this season's work two more traction engines. One, a 30-horse power, is finished and its arrival is expected daily. It will cost \$4000. As soon as it comes Mr. Curtis will harness it to six six-horse harrows and start it following up the steam plows. His third engine will be done by the middle of March next. It will be a magnificent machine of 50-horse power and will cost \$8000.

This engine is building expressly to drive or pull an immense Stockton combined harvester, also now being made to order for Mr. Curtis. This harvester will make a 40 foot cut, will thrash, clean and sack 1500 bags of wheat per day. It will be the largest combined harvester in the world. The immense engine to drive it will burn straw, which will be automatically carried from the cylinder of the thrasher, by draper, to the furnaces.

All these traction engines are so constructed that they may be used to plow or harrow, or run harvesters or haul grain to the shipping point. When pushed to their full capacity the three will do the work of at least 200 head of horses.

In a few days Mr. Curtis will have two traction engines and 125 head of horses preparing this tract of 5000 acres for seed. With a favorable season this land will produce from 25 to 30 sacks to the acre.

Mr. Curtis will seed this season 17,500 acres of land, besides summer-fallowing nearly 3000 acres. He sows Club, Sonora, Proper, and from 85 to 100 pounds to the acre.

With anything like a favorable season and market, his wheat crop of 1889 will sell for \$750,000 to \$800,000.

THE DAIRY.

Short-Weight Butter.

The discussion on short-weight butter rolls is always of interest to butter producers, and the following from the *Chronicle* shows the city aspect of the business. It should be clearly understood that the dairyman does not profit by the short weights; he sells his butter by the pound and he makes short-weight rolls simply and only because the city retailers will not buy full-weight rolls. As was said in the *RURAL* last week in the interview with Mr. Hegler, the matter has gone so far that only an Act of the Legislature can restore full weight to the butter rolls. The following is gossip and interesting:

How many of San Francisco housewives think that when they buy a "two-pound roll of butter" or a "ten pound pail of lard" they are getting what they pay for? Once in awhile some thrifty housekeeper tests a roll or two, and finding that it does not weigh by six or eight ounces what it pretends to, she descends in her wrath upon the meek and inoffensive corner groceryman and demands to know why these things are so. The smiling groceryman in a deprecating manner tells the irate customer that really it is no fault of his. Those rascally farmers are so intent on reaping a fraudulent profit that really it has come to such a pass that no more honest weight butter is packed. It is impossible, the retailer exclaims, to buy any full-weight butter in the market, and really the fault ought not to be laid at his door.

This is true enough so far as it goes. The country dairyman does not, it is true, pack any more full-weight butter. But the retailer, unfortunately, neglects to state that this is because there is no market for it. The honest groceryman cannot be persuaded into handling full-weight butter, and so the rolls have gone on decreasing in size until now there is frequently a loss of half a pound to each roll.

The attention of a *Chronicle* reporter was called to this matter by some complaints from people who had not lived in California long enough to become accustomed to the "bit" swindle and other impositions still practiced here. They have been exasperated a number of times by purchasing what purported to be two pounds of butter, only to find that the roll contained but a pound and a half or a little more, and they had been wondering why there had been no law passed to prevent such an imposition. They called to mind that functionary known as the "sealer of weights and measures," who visits stores in many of the Eastern States at unexpected times, and is empowered to confiscate all fraudulent weights and measures and short weight goods and to prosecute those who thus impose upon the public. They were surprised to learn that in this State no one stands between the consumer and the rapacity of the avaricious dealer, and were not slow in denouncing such a condition of affairs.

The reporter undertook an investigation of the matter, and certainly found enough to justify the wrath that had been shown. Several wholesale dealers were seen, and the same result was met everywhere. They were all unanimous in saying that the whole fault lay with the retailers. There was once a time when the dairymen packed their butter in full-weight rolls. Indeed, they would have been called swindlers had they not done so. The public was then educated to accept a roll being exactly two pounds.

But as time went on unscrupulous retailers saw a chance for an illegitimate profit, and there arose a demand for short-weight rolls. At first an ounce or two were cut off, but the custom has grown, until now much butter comes to market that is short half a pound to the roll, and there is a constant demand for butter that is from 15 to 20 per cent short. If a dairyman is so foolish as to risk to deal honestly and so packs his butter in exact two-pound rolls, he cannot sell it. Practically, there is no demand

from retailers for anything but the fraudulent butter.

The wholesalers point out that it is in no way to their interest to handle none but short-weight goods. They simply sell on commission or buy and sell by weight. The size of the roll cuts no figure in their transactions. Of course it is their business to meet the demand of the retailer, and if that individual wants short rolls the wholesaler must see that he gets them.

The reporter inspected a large number of boxes of butter that were on sale, and found that the number of rolls to the box was all the way from 50 to 65. The ordinary butter box is made to hold 50 full-weight rolls, and should weigh just 100 pounds net. But these boxes run from 86 to 102 pounds each and hold from 50 to 65 rolls. One box with 64 rolls weighed but 102 pounds, instead of the 128 pounds which it should have weighed.

It being manifestly unjust to condemn any one unheard, the retailers' side of the matter was sought for. It may, perhaps, be regarded as of an unconsciously humorous order, but it may be taken for what it is worth. They acknowledge that such a thing as a short-weight roll was not tolerated. The two-pound roll contained two pounds. But they claim that the consumers were dissatisfied and demanded a short-weight roll, and as a matter of course this demand had to be catered to.

A well-known retailer told this tale to the reporter in all seriousness:

The retailers claim that the consumer does not care so much about getting a full roll as he does about getting a roll of some kind for a small price. Hence, if one dealer sells a full two-pound roll for 50 cents, and the dealer on the next corner sells a roll that contains a pound and a half for 45 cents, the consumer rushes eagerly for the 45-cent roll.

The retailers claim that they practice no imposition in the matter. They say that they carefully refrain from claiming that the rolls contain two pounds, and they also claim that they grade their prices to correspond to the weights.

This explanation, however, hardly elucidates the fact that many retailers are anxious to get the lightest weight rolls obtainable. If they graded their prices by weight, it is difficult to explain the great anxiety to get as light weights as possible.

One retailer was asked if he did not consider it dishonest to charge the same price for a roll that weighed but a pound and a half as he did for one that was within an ounce or two of full weight. He was utterly unable to see anything at all out of the way in such a transaction. "It's a pure matter of business," he said. Of course there is no use of any further discussion on such a basis.

Finding that there was a disposition on the part of many retailers to throw the blame upon the shoulders of the producer, who is accused of not packing full-weight rolls, the *Chronicle* communicated with an experienced butter-maker of Monterey county and received some interesting information. This producer admits that no full-weight butter comes into the San Francisco market. Never under any circumstances does the producer use a full-weight mold for his butter, and the reason is simply because he could not sell the butter if he did. "If I packed my butter full weight," said the dairyman, "it would lie on the floor of the commission-house until the Angel Gabriel blows his horn before any retailer would buy it." The shorter the weight is the better the retailer likes it. Fifteen or 20 years ago all butter was put up in full-weight rolls. Each box held 50 rolls and netted 100 pounds to the box. Sometimes the boxes would overrun a pound or two, and this caused complaints from the retailers. They therefore demanded a reduction in the size of the rolls, and so the producers cut down the molds a little. This made the 50-pound box weigh 96 or 97 pounds. This pleased the retailers so well that it was not long before they demanded a still further reduction, until now from 60 to 65 rolls can be put into the same old 50-roll box. The producer referred to states that he has made a mathematical calculation, and finds that if the same ratio of reduction is continued for another 15 years the end of that period will find the roll of butter to consist of a little white rag six inches square.

The retailers claim that they never represent the rolls as containing full two pounds, but if they do not in terms claim so, that is the general understanding. And if a consumer asks for a pound of butter he is given just half a roll, no more, no less. A great many housekeepers, it is true, who have lived here for many years understand the matter, but newcomers do not, and certainly are justifiable in thinking themselves swindled upon getting but a pound and a half when they think they are getting two pounds of butter.

It is evident that the short-weight roll grew out of the desire to reap an excessive profit, and it is folly to charge that it was the demand of the consumer that brought about the all but general fraudulent roll of butter.

TWO SUNRISES A DAY.—Lundy, Mono county, according to one of our exchanges, has a double portion of sunrises. "Old Sol" does not pop into the canyon until 11 o'clock in the forenoon, and three hours later he hides himself again behind the hills, and seems to take a nap for an hour or two behind Mount Snowden, when he emerges for the second time, with a sleepy look, just long enough to say good-night."

THE GARDEN.

Lawn-Making in Oakland.

Oakland is a city of lawns. We have about 8000 houses in the town, and nearly, if not quite, half of them have a lawn, or at least a humble grass plot, in front of them. Some of these lawns are very extensive, but on a conservative estimate we may say that the Oakland lawn averages 30 feet front by 15 feet deep, giving a superficies of 450 feet. Then, if there are 4000 of these lawns, there must be an aggregate area of 1,800,000 square feet. Throw in the several small city parks, and we have a total area of green sward of over 50 acres.

Of course it requires an immense quantity of water to keep all this grass fresh and growing the year around. How great that quantity really is can be best appreciated when it is stated that the per capita consumption of water in Oakland is 235 gallons per day, when in most cities the consumption is from 30 to 100 gallons. In Washington, another city of lawns, the consumption is 170 gallons.

But not every Oakland lawn is a success; while some are fresh, smooth and velvety, others are shaggy and ill-conditioned and vex the hearts of their owners almost past endurance because they won't grow, in spite of all coaxing. To find out what is the matter with these sick-looking lawns—and the information is seasonable, for this is the time of year when most persons manure their lawns—a reporter sought out a florist and obtained the following interesting information from Mr. Seiberger of the Seventh-street nursery. Many people make a failure of their lawns because they begin wrong. They dig up their ground, dress it with stable manure, sow their blue-grass seed, and wait for the crop. The manure was full of seeds of weeds and alien grass, and they come up quite as soon as the grass seed does and continue to flourish. Much time is spent in weeding the lawn, but the wild grass is hard to eradicate and eventually it gets the upper hand of the blue grass. A better way to proceed is to spade up and pulverize the ground, manure it and then let it lie a couple of weeks. By that time the weeds will come up and can be hoed down, thus killing them, after which the grass seed can be planted to better advantage. This is the first point.

Then there are grave objections to spreading stable manure on lawns, because it is full of the seed of burr clover. It is better to use bone dust or some chemical compost—bone dust is the best fertilizer, however, because it has body to it and goes to the roots of the grass. The liquid portion of the stable dressing, which is its most valuable part, is quickly carried off by the wind. It is not a bad idea to strew rich earth instead of manure on the lawn, but when this is done the earth should first be thrown in a heap, watered and left to lie till the weeds come up and can be killed. A great deal is said about excessive watering of lawns, all of which is true, but as many or more lawns are spoiled in Oakland by mistakes made in trying to enrich them.

As to watering lawns, no absolute rule can be laid down, because soils differ in respect to the amount of water they will absorb. Generally people do not stop to inquire whether their lawn is on a bed of sand or a rich deep loam, and they water one as much as they do the other, though the loam needs only about a quarter as much water as the sandy soil. It is a mistake, however, to water any lawn every day. You see people who sprinkle their lawns, not because they need it, but from force of habit. They pull out their watches and say, "It's 4 o'clock and I must water the lawn;" or they do it because they see their neighbors doing the same. Twice a week, generally, is often enough to sprinkle; but it is better to water the lawn only when it needs it. You can tell when it is needed by the look of the grass. When it is dry it will look so. It has a yellowish, desiccated appearance. When it is sprinkled too often, on the other hand, the lawn loses that bluish-green tinge which it ought to have. Too frequent watering brings the roots close to the surface, and for that reason it is better to water less often but give it a good soaking when you do turn on the hose. Wet it down six inches.

Another error which people commit is planting shrubbery in their lawns, the roots of which run near the surface and sap the nutrition which should go to feed the grass. Look at a lawn upon which lilacs or syringas have been planted, and you will see that the grass around the shrubbery is yellow and dead looking. Rose-bushes do not so affect the grass, and palms and most other trees are all right; but if you want shrubbery, plant it in a corner where it will not interfere with your lawn.

The best lawn will not last forever. Blue grass degenerates; wild grasses invade the lawn, and it has a rough, shaggy look. In five or ten years the ordinary lawn runs out and needs to be renewed, though there are some lawns in Oakland a dozen years old which still look well. When a lawn has once degenerated, no amount of water and manure will bring it around, and the thing to do is to root it up, spade up the ground in the fall, let it lie till spring, enrich it and then start in afresh.—*Enquirer*.

THE STABLE.

A Famous California Horse.

A telegram has been received announcing the safe arrival of Anteeo at Louisville, Kentucky. This noble animal, on which so many Santa Rosas have looked with pride, a horse whose remarkable record has been closely connected with the history of our beautiful town, deserves more than a passing notice at this time. This is a fitting occasion to give a sketch of his history and to say something in regard to the promising colts in California of which he is the sire.

Anteeo's pedigree is too well known in this section to require the restating of it at length at this time. He is the fastest son of Governor Stanford's famous Electioneer, his dam being Joseph C. Simpson's Columbia, the only mare known to be the mother of two colts with a record of less than 2:20. He was foaled nine years ago.

Anteeo's record is 2:16½, that of his full brother, Antevolo, being 2:19½. It is a singular circumstance that these two noted brothers, after having been separated for years, should meet and make a trip across the continent in the same car.

Horsemen, generally, do not think Anteeo was properly managed in his training for the track. Many of them believe that he would have developed a truly phenomenal rate of speed if he had been differently managed. It is reported as having been a common thing for him to have trotted a quarter in 30 seconds, and, with proper training, it is believed by many that he could have been induced to crowd two minutes very closely.

Anteeo's progeny on this coast number about 200, many of which are very promising and they will be heard from in the future. As yet less than a half dozen of his colts have been handled for speed, but this has been with such gratifying results that many of his admirers predict that he will eventually surpass the fame of his most noted sire and be the greatest sire of fine horses in the world's history.

Anteeo was purchased by the Sonoma County Stock-Breeders' Association, and brought to Santa Rosa five years ago. The price paid for him was \$10,000, he being purchased from Jos. C. Simpson, who reared him. His fastest time, 2:16½, was made on the track here two years ago, in a race, since which time he has been kept for breeding purposes. Among his colts specially worthy of mention in this county we have learned of the following:

Redwood, 2:30½, owned by A. McFayden.
Alfred G, 2:31, owned by Mr. Guerne.
Anti-Coolie, near 2:30, owned by I. DeTurk.
Sunset, 2:36, at little training, owned by Guy E. Grosce.

Messrs. DeTurk, Wyman Murphy, Guerne & Murphy, J. H. Laughlin, T. J. Ludwig, and many other residents of this and adjoining counties have numbers of very promising colts sired by Anteeo.

And now this noted horse goes from the vine-clad hills of Sonoma county to the blue grass pastures of Kentucky. He is taken to the State noted for the finest horses in this country, to be used in improving the stock of that favored region. Kentucky brood mares are as fine as can be found in this or any other country. Good results will be confidently hoped for from this mixing of the best blood of California horses with the best in the State of Kentucky. Many tempting offers have been received for Anteeo, but his owners say that after a year or two he will be returned to Santa Rosa, unless these offers are materially raised. The large amount of \$20,000 and we believe \$25,000 has been refused for this animal. He has paid his purchase price several times over, the net profit from his management last year being over \$6000.—*Santa Rosa Republican*.

FASTING HORSES.—Doubtless it is the experiments of those fasting gentlemen, Dr. Tanner and M. Succi, that have led to experiments of short commons on horses. Trials have been quietly going on in some French fortresses, to ascertain how long artillery horses could hold out, when deprived of solid and liquid food; and of these two life-sustaining necessities, which was the more essential. It has been found that a horse can sustain life five times longer when not deprived of water than if deprived of all solid rations. A horse will not exist longer than five days if kept without water, though it may be abundantly supplied with solid food. Nor will a horse hold out if insufficiently furnished with water. It perishes because the stomach has been exhausted. In Algeria, where cavalry horses have to remain frequently two and three days during a campaign without water, they will, on arriving at the wells, ingurgitate 80 quarts in three minutes. Hence water, in the case of a siege, is more important than solid rations. With respect to the fasting men, the effects of starvation were less visible with those who imbibed water than with those who abstained. But death by inanition would arrive in due course, when corporeal energy succumbed. The explanation is facile; the liquid losses in the system take place in several manners; the diminution of the liquid part of the blood, in the case of inanition, renders the blood thick and viscous, thus blocking circulation, and so arresting the processes of nutrition.

PATRONS OF HUSBANDRY.

A New Grange at San Miguel.

MESSESS. EDITORS:—It affords me pleasure to report our success in establishing a Grange, P. of H., at San Miguel, consisting of 16 charter members. The meeting, as announced in your last week's edition, was held on the 1st inst., Worthy State Deputy J. V. Webster performing the ceremony, with the feeble assistance of your correspondent. The election of officers for the ensuing year resulted as follows: Rufus Fisk, M.; G. Webster, O.; Mrs. E. A. Fisk, L.; O. P. McFadden, S.; C. Forbes, A. S.; Mrs. J. J. Coyle, Chaplain; Capt. J. C. Currier, Treas.; Clark Hitt, Sec.; H. J. Schroeder, G. K.; Mrs. J. C. Currier, Ceres; Victoria I. McFadden, Pomona; Mrs. J. P. Nash, Flora; Miss J. H. Jenke, L. A. S.

The next meeting will be held in Masonic hall on Friday, 15th inst., at 1 p. m., when it is proposed to install the officers. San Miguel is a new town in the northern portion of San Luis Obispo county, on the line of the S. P. R. R., and in the heart of a very fine farming district. The Catholic Mission Church was established at this point in 1797, and still stands a worthy monument of the pious labors of Spanish padres, though the communicants are represented by but a few of the descendants of the native Californians. The town takes its name from the Mission, and the Grange acted wisely in retaining the appellation, thus, in a measure, advertising the place more widely, as it justly deserves to be. As should be known of a community so newly settled, there is not at present an overplus of Uncle Sam's circulating medium, but at the same time no place in the State, probably, has brighter prospects for the good time coming. A large acreage of wheat and barley has been sown on land never before under the civilizing influence of the plow, and the season so far having been the most favorable ever known since farming began here, all are in a most hopeful frame of mind. Judging from the very favorable sentiment expressed by many of the farmers of the vicinity regarding the Order, the prediction is warranted that ere the lapse of the current year San Miguel Grange will number a large membership.

F. B. L.

Paso Robles Grange Reorganized.

MESSESS. EDITORS:—Paso Robles Grange was reorganized to day by J. V. Webster, Esq., Past Master of the California State Grange. It might not be amiss to state for the information of your readers that no Grange ever existed in the town of Paso Robles, but that the organization known as Paso Robles Grange held its meetings in a schoolhouse on the Estralla Plains, about five miles east of the Paso Robles springs. In organizing this Grange, Bro. D. F. Stockdale, the last Master, is entitled to a special praise for the generous assistance he rendered in escorting me over the country in his own conveyance. For the untiring efforts of Bro. H. W. Rhyne, also a Past Master of this Grange, much credit is likewise due for the success of the movement.

Eighteen men and women enrolled themselves in the good cause, and the work of reorganization was carried to a successful conclusion by Bro. Webster. When about half through, five or six others, eligible and equally worthy of wearing the honors of a Patron, sought admission to the Grange-room, but the lateness of the hour would not permit the interruption, and they were compelled sorrowfully to retire and await their admission by regular initiation at some future time.

The officers for the ensuing year are J. D. Lindner, M.; Levi Ekline, O.; H. W. Rhyne, L.; R. D. Cruickshank, S.; D. L. Deal, A. S.; Jos. Tidrow, Treas.; D. F. Stockdale, Chap.; A. Kingery, Sec.; B. B. Pierce, G. K.; Mrs. L. E. Ballard, Ceres; Martha Tidrow, P.; Mrs. D. F. Stockdale, F.; Kitty Linn, L. A. S.

A meeting will be held in Masonic hall two weeks from to-day at 1 p. m. for the installation of officers and for such other business as may properly come before it.

Next week I will visit San Luis Obispo to ascertain whether there is any "sand" among the farmers down that way. Yours truly,
Paso Robles, March 2, 1889. F. B. L.

From Sister Overhiser.

MESSESS. EDITORS:—As I am quite sure you and many of the readers of your paper will be glad to hear of the recovery of Sister J. J. Woodman, who met with so serious an accident by being thrown from a carriage on our return from Manhattan to the City of Topeka, after the visit of the members of the National Grange to the Agricultural college, I will transcribe a portion of a letter written by her after her return to her home at Paw Paw, Michigan. The letter was received by me in January, but other writing, which required immediate attention, and pressing duties, have prevented me from sending it to you sooner.

My Dear Friend and Sister:—The days and weeks roll by and I have not written to you. I sent a short letter to the Grange Visitor, published at Kalamazoo, Mich., thinking that all would hear from me, and I would write sisterly letters as time and strength would permit. How often I think of you and Sister Hayes beyond

the Rockies, and in that fair and summer clime we read so much about. In the RURAL, which we receive and read carefully, I do not find much of personal interest, but I did learn from that paper that Bro. Hooper had arrived home and was well. I feared the injury to his head would prove to be more serious than at first it seemed.

Speaking of the Grange and its members, Sister Woodman writes: "We are one great family in the Grange, and I cannot help feeling an interest in you all, and every meeting I attend strengthens this union; but the one at Topeka, when I lay there so helpless and received the kindness, love, and help that I did, has endeared you all to me more than words can express. I cannot look upon my hurt as a sorrow, for there are so many bright and pleasant things to remember that the mist is all cleared away. I continued to improve slowly in the home of my friends at Topeka, and stood the journey home very well. Have gained gradually, but I think surely, since I arrived home, and if I go slow, expect to be able to attend the next session of the National Grange and meet all the old and many of the new members."

"We are having an open winter, no snow or sleighing, and as warm as April. Remember us to all the Past Masters and their wives when you meet them, for we know them all back to Bro. Hamilton."

I would add that Sister Woodman has already attended 15 sessions of the National Grange, not always as delegate, but so interested is she in the work of the Grange, that she goes and pays her own expenses. It is to be hoped that she will have health and strength to attend many more, for no sister would be more missed than Sister Woodman.

MRS. W. L. OVERHISER.

Stockton, Feb. 23th.

The National Grange Session.

MESSESS. EDITORS:—There is one subject, at least, about which the Patrons of California unanimously agree, and that is, the next session of the National Grange ought to be held in California. At the farthest, it will not be many weeks before the Executive Committee of the National Grange will select the place of meeting for the session of 1889. It is earnestly to be desired that every honorable means be used to get a favorable action of the National Committee. The Legislature will no doubt pass the bill, already passed in the Senate, appropriating \$10,000 to assist in defraying the expenses of the session, provided the same is held in California. It is therefore very important to begin the plan carefully for the meeting. Every brother or sister of the Order in California who knows any one of the members of the National Grange Executive Committee should communicate with said member at once, and urge the claims of the Golden West. There would be a great awakening for the good of the Order on the Pacific Slope, if it were known that the National Grange were to meet in California; and, unless we are much mistaken, the Order throughout the Eastern States would also derive great benefit, for there is no disputing the fact that the members of the National Grange will be royally entertained by their Patron friends of California. Those honest yeomen of the soil will find much to instruct, amuse, and profit them if they will but allow us to entertain at their next annual session. Without boasting, it can be safely promised, and the promise be fulfilled, that the National Grange will be entertained in California as it has never been before. That is California's reputation with those National bodies that have met on the coast, viz.: The National Educational Association, the Knights Templar, the National Encampment G. A. R., and the National Baggage-men's Association. Surely the Order of Patrons of Husbandry will not be behind in its attentions to the National Grange.

In a short conversation with Worthy Master S. C. Carr of Wisconsin State Grange, he urged the importance of immediate action by the members of the Order in California. He thinks it is a grand opportunity, both for the National Grange and for the members of the Order on the Western Slope, that the next session be held in California. Knowing that the members of the Order in California will do their full duty by the National Grange, we hope Worthy Master Overhiser and the Executive Committee will leave no stone unturned to secure the next session of the National Grange. Every Patron, in his or her sphere, can do something to help. Let us, then, work with a united will, for "where there's a will there's a way."

Yours fraternally, E. W. DAVIS.

Yuma, Arizona, Feb. 26, 1889.

Grass Valley Grange.

MESSESS. EDITORS:—The circular prepared by San Jose Grange was discussed by Grass Valley Grange March 2d. The first, relating to the tax on mortgages, was adopted by a vote of 15 to 1. The second, to withhold State aid from agricultural societies where gambling is permitted, was carried by a like vote, 15 to 1. The third was not acted upon, as the bill has passed. The fourth, fifth and sixth were adopted by a unanimous vote.

Our Grange has lost one of its most worthy members, Bro. Jonathan Butler, who died February 25th.

J. W. DE GOLIA, Sec'y.

Grass Valley, March 3d.

Another Grand Meeting at Tulare.

A beautiful forenoon's ride along the bay shore from Oakland to Martinez, and thence through some of the pleasant and well-cultivated fields of Contra Costa county, brought us to the junction at Lathrop in time to extend a hearty fraternal greeting with Worthy Lecturer Flint and devour a "six-bit" dinner on our way to Tulare last Friday. None of the grain-fields on the way, though, could be rated better than moderately promising, although a liberal rain soon would no doubt insure first-rate crop.

At Merced we were sadly reminded of our last parting with dear Bro. Chandler while returning from the State Grange session, until the memory of his many good deeds and noble examples turned our reflections into brighter and hope-inspiring thoughts of his worthy life and its never-dying influence on those who knew, loved and appreciated him truly.

Improvements were more noticeable than usual in most of the towns all the way to and in Tulare.

Bro. Talbot gave us a kindly call upon our arrival in the evening, and Bro. A. J. Woods early in the morning.

A brief and special morning session of the Grange was held and instructions given in the First and Second degrees by State Lecturer Flint, who also, by request, gave some well-rendered remarks. The State Secretary mentioned something of the progress of the Order. Mrs. Joseph Merritt being called on, led the sisters in expressing some excellent thoughts, which we hope she will send us for the benefit of both our brothers and sisters abroad. Bro. Maples recommended that at the next session of our Legislature copies of all bills introduced be secured by every Grange and examined and discussed, and action taken to apprise the members of the Legislature of the views of the Grange upon all bills of interest to farmers and the Grange.

Bro. Dawey stated that it was the intention of the publishers of the RURAL PRESS to hereafter have a special correspondent who would report all bills of special interest to farmers for publication, and keep our readers as well advised as possible on all measures of moment there. He believed the experience gained by the attendance of our legislative committee during this session would be of such value as to enable us to reap great advantages by more complete arrangements for a legislative committee at future sessions.

At the regular meeting in the afternoon, a class of 12 brothers and sisters were advanced, by the combined ritual, in the third and fourth degrees in a very able manner by Bro. Flint and the officers of the Grange.

Bro. Flint especially commended the work of Assistant Steward Talbot and Lady Assistant Steward Maples. Although performed under a new ritual, it is seldom we have ever seen so uniformly good services done. The new work was considered a decided improvement on the old and more lengthy ceremony.

The rituals used were those presented to Tulare Grange for being first in the State to initiate a class of ten or more under the new and combined ceremony. The rituals were the first set received and the same that were used in testing the work at the last State Grange sessions.

Two applicants were admitted lately by demit, so that already 14 new members have been added to the roll of the first Grange that so pleasantly entertained Bro. S. C. Carr, Master of Wisconsin State Grange, on his recent popular Grange tour in California.

Four or more other Granges have been heard from as most certain of soon initiating classes of from 10 to 20 under the new ritual, including several others visited by Bro. Carr, and some not so fortunately favored. Not less than 60, and probably over 100 new applicants, aside from the new Granges established, have thus been secured within the past 30 days.

The exemplification of the secret work and its signification, in which Sisters A. P. Merritt and A. J. Woods assisted, was a well-rendered and instructive feature. The class of Husbandmen and Matrons instructed is worthy of mention as one composed of both young and old, as well as very promising appearing candidates, all of whom we advise to make the Grange of value to them by persevering endeavors to be constant and active attendants until their presence is made agreeable to themselves and indispensable to the Grange.

At 3 o'clock Tulare Grange and its visitors, numbering about 75 strong (the brothers escorting the sisters), marched from the hall several blocks to the Cosmopolitan hotel dining-room, where a good and substantial feast was partaken of.

All well served (without sacrifice, overwork or second tables for patient waiting sisters or brothers), the return march was beat in round numbers and in due order to the hall.

By vote an open meeting was held, and Bro. Mackie introduced a friend, a member of a dormant Grange, Mr. Jas. Boyd, a pioneer of the Riverside colony, who made such practical and well-received remarks that we were glad to secure his promise to present them to our readers. Mr. J. S. Loveland, another friend from Riverside, clearly set forth among other desirabilities for successful farm life that of small holdings, which, we trust, he will also write out for our columns. Unanimous thanks were voted for their kindly addresses. Mr. Boyd is an old cor-

respondent of the RURAL, and both gentlemen long-time and appreciative subscribers.

Bros. Sam Fowler, I. N. Wright, L. B. Hawkins, Maples, Past Master Merritt, Master Moore, Mackie, De Hart (of Watsonville Grange), and other brothers and sisters spoke with zeal and earnestness.

Bros. Flint and Dawey congratulated the Grange on its able and excellent membership, and the good prospects of the Order throughout the jurisdiction and satisfaction received in attending another so good and successful a meeting of Patrons in Tulare.

The San Jose Grange resolutions were read by Secretary Harelson, and duly considered in open meeting. Another resolution recommending the adoption of the tax-reassessment law mentioned in Past Master Webster's communication in the RURAL PRESS for March 2d was added and the whole unanimously adopted, with instructions for the Secretary to send copies under seal of the Grange to the members of the Legislature from the jurisdiction of this Grange.

A vote of thanks was tendered the Lecturer and Secretary of the State Grange for their attendance and services.

The excellent music rendered by the choir added much to the pleasure of the occasion. Brother and Sister Bates, De Hart (of Watsonville Grange) and Schoemaker of Visalia were present. Bro. B. F. Moore, who has been suffering from rheumatism ever since the meeting of the State Grange, who was visited by Bros. Flint and Dawey, expresses strong hopes of soon being able to be on his feet and again doing good work for the Order.

We believe some active steps will soon be taken by Tulare Grange and other Patrons to reorganize Visalia Grange and new Granges at Porterville, Traver and other localities in Tulare and Kern counties.

Still journeying from home, we have only attempted to give a partial report of the good Grange day so much enjoyed, and hope Bros. Flint, Mackie or other good brothers and sisters will make up for the deficiencies.

Several new subscribers for the RURAL PRESS and Patron were received. An unusual number of improvements seem to be progressing in towns along the way from Oakland to Bakersfield.

A. T. D.

Gulling the Grangers.

Edward H. Fleming of cactus hedge fame is working this part of the country. He was in Sutter City about two weeks ago, where he succeeded in humbugging Henry Beste and swindling him out of his fine house and lot which he drew in the Sutter raffle last fall. Fleming, in common with men of his class, has a fluent, plausible tongue, and a business air which so charms the gullible that they fall an easy prey to his swindling operation.

He succeeded in selling a good many of these hedges to boomers in Fresno and Los Angeles counties who were willing to bite at everything with which sharpers baited their hook. After a thorough trial, those who bought them have declared the cactus worse than a nuisance. These disconsolate victims made it so warm for Fleming that he no longer found it pleasant or profitable to remain there, so he has changed his base of operations to the citrus belt of Upper California.

While in Sutter City he portrayed the beauty and utility of these hedges in such glowing terms, and the avidity with which every one purchased them, together with the immense profit attending the sale, that Mr. Beste immediately entered into an agreement to furnish an acre of ground upon which to plant the nursery, also to plant out and care for the young plants which should be furnished by Fleming until they should become marketable, when he (Beste) should sell them, receiving one-half the proceeds, the other half going to Fleming. In consideration of this one-half interest in the business, Mr. Beste deeded to Fleming his house and lot, valued at \$3500. About a week after the trade Mr. Beste received a few of the worthless plants which he set out. Since then he has heard nothing of the swindler.

A gentleman came up from Fresno last Friday and attached the property to satisfy a judgment which he held against Fleming.

We are astonished that Mr. Beste could have thus been imposed upon, as he is a gentleman of average business qualifications. We understand that Fleming is wanted in Marysville for some crookedness perpetrated while working Sutter City.—Yuba City Independent, Feb. 23th.

Fleming was in Red Bluff last week and attempted to work the town and the Grangers, but so far as we know, it was a complete failure. Our people "bite" at a good many new-fangled things, and get badly salivated sometimes, but they kept out of the clutches of the "cactus-hedge" swindle. Such men as Fleming and the "Hayfork" swindler are worse than tramps, worse than highwaymen, the very worst class of confidence operators. Fleming ought to be caught and whipped with some of his "cactus" until his skin would be as full of "stickers" as a porcupine is full of quills.—Red Bluff Sentinel.

MARYSVILLE, Feb. 28.—Complaint of obtaining money under false pretenses has been filed here against Ed Fleming, who claims to be the owner of a patent for cactus hedges. He had a check cashed here which was drawn in his own name on a San Francisco bank, in which, it has been ascertained, he is not known. Telegrams have been sent out to different places calling for his arrest.

An Address to Patrons.

To the Order of the Patrons of Husbandry: The untimely death of our leader, the lamented Bro. Pat. Darden, made it necessary for the 22d Annual Session of the National Grange to select his successor. The action of that body has placed upon me a great responsibility, and I appeal to every member of the Order for aid and assistance in an effort to meet the demands of the hour.

The interests of agriculture are largely in our care and keeping. Ours is the only agricultural organization which is national in its character, and which by years of experience has learned to avoid mistakes which bring great loss and disappointment to those who, without such experience, engage in enterprises which require great skill and a thorough knowledge of all the details of business.

Guided by such experience, we attempt no revolutionary methods in business affairs, but will aim to afford safe and sure financial advantages to those who wish to avail themselves of them. Looking the present and future squarely in the face, we realize that the advantages we seek for ourselves and families are not to be gained by a sudden and grand uprising of our people. We must carefully organize, educate, drill and discipline our forces before we can obtain and securely hold what is ours by right, viz.: "An honest share for wife and home of what the harvest yields." Not the harvest of the field alone, but all the rich rewards of faithful labor in the great harvest-field of mortal life.

The social, financial and educational advantages of our Order must be found chiefly in the subordinate and Pomona Granges. The protection of our interests from the operation of unjust laws and combinations must receive especial attention from the State and National organizations. More work of this character will be attempted this year than heretofore, and we hope with satisfactory results. The great combinations formed and forming all around us to oppress both producer and consumer must be ignominiously crushed, and all such formations made unprofitable and unsafe in the future.

In the accomplishment of this grand work, the Grange must occupy no second place. "The war has already begun," and must be waged with unremitting vigor and valor until all "shall receive a fair reward for toil." If we remain impassive now, we must soon become mere tenants at will upon a soil owned by corporations and syndicates, "worshipping the mammon of unrighteousness," but without a soul to be saved or damned. We cannot meet and engage all these forces at once. We must concentrate our forces where there is the greatest need of immediate relief. Our demands have been formulated by the highest power known in our organization, and orders have been issued to press these demands with all the energy inspired by a righteous cause.

In obedience to the instructions of the National Grange, I recently visited the seat of Government and pressed upon the attention of Congress our reasonable demands. The lawmakers seem anxious to know our wishes, and entirely willing to give them due consideration. Some important legislation which we have heretofore urged upon Congress has been already secured. The Interstate Commerce law, which is sure to prove a great blessing to our people, and grow in favor as the measure is better understood, is one of the results of our organized efforts. It is true that other influences aided us, but the Grange was the pioneer in the work, and sustained the principle when it was scoffed at by many of those who afterward gave us their assistance.

The elevation of the Department of Agriculture has been one of the objects we have sought, and success has crowned our efforts. If the good results we have a right to expect do not follow, it will be because we do not insist upon having at the head of this department a man who understands the situation and ably and honestly represents the Nation's greatest industry.

One of the objections urged against the elevation of the department was that it would become merely a "soft place" in which to put a partisan worker, "who must be taken care of." The same influence which secured the law elevating the department can be used successfully to induce the selection of men well qualified to perform the duties devolving upon the department. It is expected that the men selected will be in sympathy with the party in power when the selection is made. Fortunately all political parties have in their ranks men, who, by education and association, are well fitted for the work required; and we must always be ready to use our influence to obtain the selection of such a representative of agriculture. If we fail to do so, it would have been better not to thus increase the responsibility of the department.

Efforts are being made to procure some modification of the provisions of the Interstate Commerce law in the interest of commercial travelers. We have no quarrel with these gentlemen, but we cannot consent to have any such discrimination made. These corporations are public servants and must extend the same privilege to all classes and individuals. There is no sound reasoning in the claims set up, nor is there the least probability of their receiving favorable consideration, as we shall "watch as well as pray."

It seems probable that the principle of protection to American industries is to be recog-

nized and enforced for an indefinite period in our national legislation, and it is of great importance that we give the subject our careful consideration. I know that there are radical differences of opinion upon this subject among our members, but I think all will agree that whatever the system be, it should extend to every interest. The benefits and burdens should be shared by all. We should therefore demand that the same measure of protection extended to others should also be given to farmers. If the principle is wrong, its general application will result in the speedy enlightenment of all classes. If right and politic, then all efforts should be directed to perfecting the system.

Our members should become very familiar with all subjects upon which we demand legislation, and we have no agency which can accomplish so much in this direction as the Grange press. It must reach every member of the Order if he or she is to become an important factor in our struggle for the right. Other papers may be controlled by agencies inimical to our interests, and, therefore, not to be trusted. We have several good papers, knowing and serving no interest but that of agriculture; those who conduct them have ever been faithful to us. Have we always been true to them, and mindful of their necessities? I fear not. We must redeem the past by giving them our earnest support. Bravely fighting our battles, they must be cheered and sustained; do this heartily, do it now, and you will see such a wave of enthusiasm roll down the lines that all doubts and fears as to the final success of our cause will flee away.

The Grange hall is the drill-ground of our Order. Study well the ritual, digest and the U. W. work of our Order. "Be cheerful and united." And now, Patrons, cherishing in our hearts every kind feeling toward all other Orders and associations which seek to promote human welfare, let us strive with them, working hand in hand for the good of our fellow-beings. Fraternally, J. H. BRIGHAM, Master of the National Grange, P. of H.

San Jose Grange.

MESSRS. EDITORS:—San Jose Grange has not said a word about "sour grapes." I say to you confidentially, however (of course you won't tell), that San Jose Grange was sort of angling for that prize of Worthy Master Overhiser's, but when the RURAL came to hand informing us that Tulare had gone and done it, and that Merced was a good second, we saw the thing was up.

Don't think, though, that we let the green-eyed monster in to disturb our equanimity; not a bit of it. Love and wisdom is so firmly enthroned in our Grange that there was no show for that other fellow to get in; so we were delighted to hear such good reports from Tulare and Merced. Personally our sweet memories of the time spent at Tulare during the State Grange session were too green and fresh to admit of anything but good feeling toward Tulare Grange.

And as for Merced Grange, when we think of Bro. Ostrander we can't help but congratulate Merced Grange. During the week spent at Tulare we remember that at the hotel at meal-times there were two sets of waiters, one set that waited on the table and the other that waited at the table. The latter, mostly Grangers with good appetites, were so much more numerous than the former that their wants could not be supplied at once, so they had to wait, and during these moments of waiting we remember how the tediousness was enlivened by the laugh of Bro. Ostrander. It was as good as a tonic and would have filled the place of a dessert. So we greet Merced Grange and say, go on, sister, in the good work.

San Jose Grange took in two new members last Saturday. They were old stock—two that from stress of circumstances had drifted away from our Grange, but were taken up again by the vortex that is now sweeping over the State, and were brought back to their old fold, and we were delighted to have them back.

We had our ten all ready Saturday, but of course Tulare and Merced took the wind out of our sails, as far as taking the prize is concerned, but we don't mind that, we are going along just the same and are going to swell our ranks. The tide is setting in and the flow strong, and the Grange interest increasing.

Last Saturday we had to vacate the chair and go to the outer gate and attend to two who were seeking admission. Of course we couldn't take them right in, but we took their applications. So, Providence permitting, next Saturday we will have a class of 12 to initiate in the First and Second Degrees. Sister N. A. Sanders read a fine selection at the Grange last Saturday.

We have been whooping up Grange interests lately, but for the last five or six weeks we have done more whooping in the whooping-cough line than otherwise. Have had three grandchildren down with it and then my partner thought she must have it. People think it is a good joke, my wife having it, but we fail to see where the joke comes in. A quartet in one house, running up and down the scale from deep bass to high C, may be kind of funny to an outsider, but is serious business to those behind the scenes. They are all getting over it, however, and will make good Grangers by and by, so "all is well that ends well."

Fraternally, O. F. ALLEY, San Jose, March 4th.

Bro. Woodman's Visit to Lodi.

MESSRS. EDITORS:—We left Bakersfield Feb. 26th, in the evening, and on our arrival at Stockton the next morning found Bro. Overhiser awaiting, and we were not long in reaching his residence over the splendid highway that seems to make the miles much shorter than in the Eastern States. We entered his grounds between two stately oaks, on one of which swings the outer gate opening to the cosy "Oak Home" of the Master of your State Grange. We found the gate wide open, and we were heartily welcomed by Sister Overhiser and other members of the family. Our brother has a grand place situated in the midst of a grove of grand oaks whose ages reach back through the centuries. Here we saw all the paraphernalia of a great (Grange or) farm. Here was seen the lovely flower, the golden orange, the lovely evergreen, the dark-green eucalyptus, the blossoming fruit trees, the broad vineyard, the fish-pond, and everything in the line of agriculture, from the pruning-hook up to the combined harvester and thrasher, steam engine, pump, etc., and all of this surrounded with several hundred acres of waving grain, luxurious pastures teeming with flocks and herds. We only stopped for dinner at this time, as Bro. Overhiser had made out a program which suited us exactly. He had business at the capital (perhaps an ax to grind), so in company with him and Sister Overhiser we took the north bound train and were at Lodi before we had scarcely left Stockton. We found Bro. Huffman awaiting us at the depot, and we were soon domiciled at his nice home in Lodi. You remember Bro. Huffman accompanied your splendid exhibits to our State a year ago last November at the time the National Grange was held there. So of course we must see him and renew acquaintances there formed.

In company with Bro. Huffman we were soon on our winding way again, and we went all around the "sap bush," around and through miles of wheat, through the "green pastures," along splendid highways, all well fenced and free from weeds, bushes and other unsightly things. And then such fine residences, barns and other outbuildings, while in the background are seen the evergreen oaks in great profusion. We could not suppress the exclamation, "beautiful, lovely, glorious!" and now our mind wanders back to our Michigan home where letters received to-day inform us the mercury has been down to 13 degrees below zero, recently. But to sum up, we must say San Joaquin county (as far as my observation extends) is the finest grain region we ever saw. Stopping over night at Bro. Huffman's, we were with Patrons as they gathered at their Grange hall the next day to work for the Good of the Order. A goodly number of fifth degree members were present, and the time occupied with business matters to such an extent that the installation of officers had to be postponed one week. We had a very pleasant time with the members of San Joaquin Pomona Grange. We tarried over night with Bro. G. H. Ashley, whose residence is in the midst of a great wheat farm of 800 acres. In fact, it is wheat, wheat, and then more wheat, with occasionally a 160 acre watermelon patch or summer-fallow thrown in. Bro. Ashley returned with us to Stockton the next day in time to be present at the regular session of that Grange, March 1st. There was a goodly number of members present. Two ladies were instructed in the First and Second Degrees, which was very well done. We were very much pleased with our reception by the members of the San Joaquin, Pomona and Stockton Granges. The outlook for the Order in California is truly encouraging. Patrons are buckling on anew their armor and under such enthusiastic leaders as Worthy Master Overhiser and scores of other wide-awake workers, new Granges are springing up, dormant ones revived and a great Grange "boom" apparent. While in Stockton Bro. Overhiser kindly showed us over that flourishing city with its two flouring-mills which turn out 2800 barrels of the finest flour every 24 hours. We can vouch that the flour is first-class, for we ate of the loaf baked in the mill. We saw the hundreds of cords of sacks of wheat waiting their turn to go through the long line of whirling rollers. And the natural-gas well that gives light to all in the mill and helps run its 500-horse power engine. We visited the immense lumber yards, the most extensive we ever saw. The great grain storehouse 300 feet square. The great machine shops where the immense harvesters that sweep so grandly over the great wheat-fields of California are built. We visited the insane asylum where the unfortunate are so well cared for, and the cemetery where repose the precious ones of bygone days and years. It is a lovely spot and an honor to the citizens of Stockton. But we could not stay always with our kind friends about Stockton, so we bid them good-bye on the morning of March 4th and reached San Francisco about noon, where we shall spend a few days, then hope to be able to visit San Jose and Monterey. Then Sacramento and Marysville, and leave for Michigan the last of this month.

D. WOODMAN.

San Francisco, March 5, 1889.

MERCED GRANGE, at its meeting on the 2d inst., unanimously adopted the San Jose Grange resolutions.

Viticultural Favoritism.

EDITORS PRESS:—I hope some one familiar with the subject will explain what has long been a mystery to me—I refer to the appropriation for the support of a Viticultural Commission. I see in your issue of March 2d that the association, not content with the present \$30,000, heartily recommends a still larger amount.

On what grounds are the whole people taxed to support this one industry of our State? One, too, that many good citizens consider dangerous to the commonwealth, regarding its encouragement on a par with an appropriation for the cultivation of opium with an "apostle" paid to preach the innocent delights of its use? What a cry of indignation would go up at any proposition to pay an apostle of the Bible out of public money!

Why then Kate Field, the "apostle" of the "gospel of the grape"?

However, it is not the morality of the business I would discuss, only the injustice of this favoritism. No doubt an equal or less appropriation to industries acknowledged to be both useful and necessary would benefit the State as well as those engaged in them.

Leaving others to speak for themselves, I would say that here on the West Side, where by force of present conditions we can do little except raise grain, a few thousand used in the experiment of sinking a deep well for artesian water would, if successful, return a large interest into the State Treasury in increased tax-values and denser population. Land-owners would then have the courage to mortgage their homes for wells.

If you tell me the grape-grower gets this preference simply because he asks and works for it, then indeed I am astonished that stockmen, fruitmen, lumbermen and grain-raisers, each engaged in an occupation of greater money value to the State, tamely submit to pay out of their hard-earned wages for the support of a competing industry. There must be in California some thousands of men meeker than Moses.

If grape-growing is not self-supporting, let the vines be dug up and the land planted in something that does not have to beg its way. Tracy, March 2, 1889. Mrs. J. M. K.

Slickens in Australia.

In January last a destructive flood occurred at Castlemaine, Australia, through the overflow of a stream known as Forest creek. A number of lives were lost and much damage was done to property. What lends the event especial interest for our readers is that the disastrous consequences of the freshet are largely attributable to impairment of the natural drainage, through deposits of mining debris. A press dispatch, in relation to the occurrence, says:

The residents of the vicinity of Mount Alexandra state that a tremendous body of water poured down the ranges. Unfortunately, the bed of Forest creek, through Chewton to Castlemaine, was almost stilted up with the debris of sluicing claims, so that the water could not find its natural channel.

Thus a locality in far-distant Australia has experienced, as in the Sacramento valley, the results that are always to be expected where the discharge of mining debris into streams is allowed to assume formidable proportions.—Marysville Appeal.

Thimbleful of Thought.

[Written for the RURAL PRESS by M. E. T.]

The reformer should remember that all reforms move slowly, and that the steps of the masses are much like the first steps of infancy, and if he would lead he must conform his gait to that which is possible for his charge.

The farmer, of all men, can least afford to encourage anything in the way of anarchy or communism. He stands between capital and labor. Let him beware lest he be crushed between "the upper and nether millstone." Capital can bury his money and dig it up as he needs it, and labor can roll up his blankets and hie away to pastures new, but what can the farmer do but fight it out on that line?

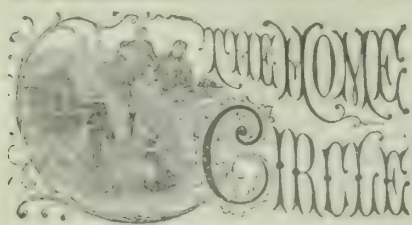
The cure for all this trouble is for every worker to economize until he has money to lend or to invest in real estate, and for every capitalist to be obliged to hunt around for somebody to dig his potatoes on an empty labor market.

But this state of affairs will not exist until the laborer uses his surplus to buy bonds instead of beer.

Let city laborers practice the same economy and work as many hours as the majority of farmers do, and there would be fewer strikes and less agitation about the labor question.

If farmers would combine and work together more instead of following their present policy of "every fellow for himself," etc., there would be less need of grinding economy and less talk of being the prey of designing harpies.

ROSEVILLE GRANGE.—Sister S. J. Cross, Worthy Lecturer of Roseville Grange, writes: We are very much pleased with the PRESS. Roseville Grange is progressing. We will have a Harvest Feast the first Saturday in April, and will be very glad to welcome brothers and sisters from other Granges. You will receive notice from the Secretary.



Song of the Hindu Devotee.

[Translated by MR. BAYERS, an English missionary.]

The snow-flake that glances at noon on Kailasa,
Dissolved by the sunbeams, descends to the plain;
Then, mingling with Gunga, it flows to the ocean
And, lost in its waters, returns not again.

On the rose-leaf at morning, bright glistens the dew-
drop
That in vapor exhaled falls in nourishing rain;
Then in rills back to Gunga through green fields
meanders,
Till onward it flows to the ocean again.

A snow-flake still whitens the peak of Kailasa;
The snow-flake of yesterday flows to the main;
At dawning, a dew-drop still hangs on the rose-leaf;
The dew-drop of yesterday comes not again.

The soul that is freed from the bondage of Nature
Escapes from illusions of joy and of pain,
And, pure as the flame that is lost in the sunbeam,
Ascends unto God, and returns not again.

It comes not, it goes not—it comes not again.

Her Lesson.

[Written for the RURAL PRESS by MALLER STAFFORD.]

It was the June time of the year, the day a rare and perfect one when the sun shone through films of fleecy clouds that floated and lingered in the clear blue of the summer sky, tempering the ordinary warmth of the atmosphere.

A low-roofed, well-to-do but not ostentatious farmhouse was set well back from the road, and partially hidden by the great elms, that, as if in protection, cast their great branches over the long and broad veranda.

In front, the wide green lane stretched east and west, one could not see how far, and vast fields of grain, now in their richest verdure, rolled northward, blending with the low hills in the distance.

The roses on each side of the old-fashioned walk sent up their sweet perfume, and nodding in the wanton breeze, seemed to whisper their perfect happiness.

A great Newfoundland dog, "Boz" by name, lay stretched out asleep in a cool spot under a rosebush, and only stirred himself occasionally to brush away the too familiar flies; while carol after carol, from a family of linnets that had built their summer residence in the woodbine of the rustic veranda, sent sweetest music through the open hall door.

Everything was lonesomely quiet; there was not a human being visible except a youth leisurely plowing in the orchard near, and who now and then broke the dreamy quiet with "G'long! get up there, Bess!"

This surely must be Arcadia, so sweet a spot, so full of perfect rest and peace.

"Well, I do declare!" said a voice strangely at variance with the harmony of the scene—a voice fretful, almost angry, but withal melodious. "I do declare if this isn't too bad. It's nothing but cook and wash dishes and bake bread, and then bake bread and wash dishes and cook for variety. How lonesome it is without mamma, and papa away too. Nobody here but Ben, while I must stay mewed up as housekeeper. I just wish something would happen, I do! something exciting; but nothing ever happens at dear old Elmside—no event, I mean." A pause. "Poky!" in a tone of concentrated disgust and contempt; "the same old thing every day, over and over, from one year's end to another!"

The voice proceeded from the back porch and was from a young girl, who, with sleeves pushed up above her elbows, was rattling the dishes to give vent to her vexation. She was not red-headed and freckled-faced; she was not a backwoods country girl of the dime-novel type. On the contrary, she possessed a graceful figure, and in spite of the disfiguring frown her face was sweet and fair, and her every movement, even in the homely task of dish-washing, betokened the refined lady.

"There now!" said she with a sigh of relief, giving her homely work its finishing touches. "I'm done at last; no more washing dishes till after supper; but what shall I do with this long, long afternoon? I don't feel like writing, I can't stay in and sew—There! I have it. I'll take the last RURAL PRESS that Ben brought from the office yesterday, and sit under the elms and read till mamma comes."

A few magic touches to her toilet in her own room, in the way of a clean apron, a spotless collar and a coquettish shade hat, seemed satisfactory, for the counterpart in the mirror reflected back a smile; then the red lips parted.

"Pshaw! I really don't see how Harold Graham could think me—me—Miriam Wentworth—the prettiest girl in all the country side. He did say it, but he couldn't have meant it. It was only an empty compliment." So saying, she dismissed the thought, took

up the paper, and springing lightly down the stairs and through the long hall, was soon seated in her favorite retreat under the elms, lost in the story.

Miriam's was a nature so deeply imbued with the good, the pure and the beautiful, that she could not long give way to thoughts of repining and discontent. She had entirely forgotten the thoughtless and foolish wish of a half hour ago, but it was soon to be brought to remembrance in a most singular and unlooked-for manner. She had been immersed in her story perhaps not more than fifteen minutes, when vaguely and distantly to her preoccupied senses there came the faint rattle and rumble of wagon wheels. This was no uncommon sound, but as she still sat reading, the nearness and violence of the noise attracted her attention. She rose to her feet, and stepping out from under the trees, looked. It was a two-horse wagon, coming at a furious rate. It required only a glance to assure her that the horses had become uncontrollable and were running away. The driver, a stalwart countryman, sat on the front seat pulling on the lines with desperation. By his side was the figure of a little boy. On came the horses, snorting and rearing, with nostrils distended and eyes wide open with terror.

"Oh!" thought Miriam, "if he can only keep them in the road!"

They were opposite the gate, and she had barely time to frame this wish like the breath of a prayer. A sudden lurch of the horses, a heavy crash, the front wheel had struck the huge oak tree and splintered it to atoms. The sudden shock precipitated the occupants to the ground. The plowboy Ben had also been an eye-witness to the scene, and springing over the fence, he caught the animals by the bits in time to check their further flight. At the same moment Miriam flew to the gate and was soon by the side of the now bleeding and unconscious child. In a moment the man was on his feet and by the side of the wounded boy, from whose head the blood was flowing copiously.

"Harry! Harry!" called he gently; but the boy lay limp and to all appearances lifeless. "I'm afraid it's a bad job," he said more to himself than to Miriam, who stood with ashen face as if stunned by the suddenness of the accident and its dire consequences. It was but momentary; her womanly thoughtfulness came to her aid.

"Lift him up," said she, "and bring him into the house. Ben," she continued, to the boy, who by this time had the frightened team under control, "you get on Bess and go for Dr. Grattan as soon as possible."

"Yes'm, that I will," was the hearty response.

Meantime the man had lifted the light burden in his arms, and led by Miriam, soon placed it on the snowy bed in her own little room; while Ben, hastily unharnessing his plow horse, sprang on to his back and was off in the direction of the village.

"I'll tell Mrs. Wentworth so't she can come home. This is a mighty bad mess, I'm afraid," thought Ben as he clattered down the long lane.

By placing her ear to the child's breast, Miriam ascertained with joy that he still breathed. She therefore busied herself in stanching the profuse flow of blood, while the man, deeply affected, stood ready to obey her every command. In conversation with him, she learned in brief somewhat of their history. He was a farmer residing in a remote settlement. A week previous, a poor widow had died, leaving her only child—this boy, Harry Marshall—without friends or kindred, and it was the last wish of the mother that he should find a home in the orphan asylum, whither the kind-hearted farmer was taking him. In substance this was all, and as Miriam bent over the still, pale face, she could not repress tears of sympathy for this forlorn and friendless bit of humanity.

In the course of an hour the doctor's gig arrived at the gate, and to Miriam's surprise, not the good old gray-headed Dr. Grattan, but a young man sprang lightly from the vehicle, and hastily entering the hall, was met there by Miriam, to whom, bowing, he said: "Miss Wentworth, I presume?"

She bowed.

"I am Dr. Lathrop, at your service. I regret to say that Dr. Grattan himself is dangerously ill, but as his substitute I shall endeavor to do the best in my power."

Miriam expressed her thanks, and without a word more conducted him to the side of the still unconscious child.

Tenderly examining the wounds, he at last said:

"A very severe contusion of the head and a badly fractured arm."

"Is it—is it a very serious case? Can he recover?" faltered Miriam.

"No—not serious," was the reply slowly given, "unless there are internal injuries."

After a careful examination, the doctor satisfied himself that such was not the case, and then set about hopefully to restore suspended circulation.

"I am so inexperienced," said Miriam in a low voice, as she stood watching the doctor, and ready to assist as bidden; "but I did all that I knew, applying cold water and bandaging the wound."

"Indeed you did well," was the assuring answer.

"How unfortunate it was that mamma was away," resumed the girl. "She would have known just what to do. Ah, here she is now,"

as a slight stir was heard outside and a sweet, kind-hearted looking matron stepped softly into the room, bowing to the doctor and bending in motherly solicitude over the little stranger.

"Terrible!" said she; "but, doctor, there are hopes of his recovery?" inquiringly.

"Yes, madam; he's stunned from the effects of the violent shock, but he'll pull round, and we must do what is possible to assist nature."

There was not much said in the little chamber, as the doctor and the two ladies worked anxiously and watched for the first favorable symptoms of returning consciousness; but it was not until the sun was casting its long-departing lances through the tall elms that they were assured of success. A faint color stole into the pale cheeks and lips, and in a few moments more the gray eyes opened, bright and full of pain, the lips quivered, and in a bewilderment of wonder the boy gazed first on the doctor, then on Miriam, who were bending over him.

"Where am I?" he whispered in a weak voice.

"Be quiet," said the doctor, gently and kindly; "you're well cared for."

"Oh! I remember," replied the lad, trying to lift his head, which sank back on the pillow, and again the gray eyes closed, while the ashen pallor spread over his face.

"He's fainted. Haad me that cordial."

Miriam did as directed, and, with heart alert and hands ready, stood to execute orders.

A few drops revived him, but scarcely had he rallied when from pain and loss of blood he once more sank into a heavy swoon. The pulse beat low and the little life seemed ebbing fast.

The young doctor's face grew grave. Miriam and her mother noted this, and forbore to ask questions. At length the doctor turned to Mrs. Wentworth and abruptly asked:

"How far is it to Danville?"

"Fifty miles," was the prompt answer.

"There's no physician nearer?"

"None."

"It would be too late," said he as he shook his head.

"O doctor! you don't think it is so bad as that?" said both ladies in a breath.

"I hope not," was the reply; "but nature is nearly exhausted. There must be a change one way or another soon."

To all outward appearances, life had forsaken the waxen casket. All efforts seemed unavailing, but the pulse still beat faintly, and silently they kept at work.

The moments full of suspense seemed hours, and it was some time after this that, as Mrs. Wentworth and Miriam stood apart in a brief consultation, they were startled to hear the exclamation from the lips of the child: "I'm coming, mamma, I'm coming!"

To Miriam's overwrought senses this was his death-knell, and sinking into a chair, she covered her face with her apron and gave vent to her long-pent-up feelings in a flood of tears; but as Mrs. Wentworth stepped to the bedside, she saw at a glance that the crisis had passed, and to her inquiry for confirmation the doctor made reply:

"Yes, the worst is over now; he is sleeping naturally—dormant, doubtless. When he awakens he will be stronger, and I think will not again relapse into those fearful fainting spells."

Mrs. Wentworth was not long in whispering the glad tidings to Miriam, whose heart gave a great throb of joy.

"Now, ladies," said the doctor, seating himself in a chair with a sigh of relief, "I will watch with the boy the remainder of the night, and would advise you by all means to seek a little sleep."

After some persuasion, with the assurance that their services would be no longer needed, they retired.

Reaching the solitude of their own room, Miriam, as was her wont when in sore trouble or conscience haunted, sat down on a low stool at her mother's feet, and with a humble and contrite heart poured out to her ever-sympathetic ear the story of her thoughtless and foolish wish, and the discontented and unworthy feelings that had prompted it.

"It struck me like a revelation, mother, that this terrible accident was in response to my wicked and thoughtless wish, and O mamma! no one will ever know the agony I endured during that long hour before the doctor came. Alone with a human life trembling in the balance, and I, I feeling, in a measure at least, the wicked cause. It was a terrible retribution, and will serve as a severe lesson that will bridle my tongue against all such unworthy, thoughtless and wicked expressions and feelings as long as I live."

"Yes, Miriam, it is a severe lesson; but remember, dear, that sometimes out of what appears evil comes great good. God's ways are not our ways and He often employs wonderful methods to accomplish good. It is His gracious will that the little life is spared."

"O mother! only to think what might have been the result! I shudder at the thought."

The first sound that woke Miriam from a deep and heavy slumber on the following morning was a manly voice, low and melodious, singing in the garden below:

"The dawn crept faint from the hills afar
And the stars in their beauty softly set.

It was early spring.

Of the time I sing.

And the flowers with a tender dew were wet."

The words, breathed low but distinctly, were

clearly audible to Miriam, who, hastily making her toilet, glanced down at the singer.

The dawn was just creeping "faint from the hills afar," and every object in animate nature was awakening to the new life of another day. Miriam had recognized the voice of the doctor, but as she beheld the late manly figure slowly pacing up the walk, the hat pushed well back to get the full sweet odors of the morning breeze, and revealing a broad forehead and fine sensitive face, she wondered she had not noticed these striking characteristics before.

During those long hours of intense anxiety in the sick chamber, when a human life hung in the balance, when she stood ready by his side to obey his slightest wish, she had not thought of him in any other light than as the kind and gentle physician; but now—Even now she had no time for sentiment. Her heart was with the little sufferer, and tripping softly to his door, she entered.

The light had been extinguished and the room was in darkness, but softly stealing to the bedside, she heard the low and regular breathing of healthy slumber. Quietly as she had entered, she stole away, vanishing in the kitchen to prepare the meal, just as the doctor's footsteps were heard through the hall returning to his little charge.

The conversation during the breakfast hour was mainly the topic uppermost in each mind—the accident and the hopeful condition of their little protege.

"He's a boy of fine mind, I should judge," remarked the doctor. "Carefully trained, and educated better than most boys of his age—must have had a noble mother. What a sad history, to be left at his early age, scarcely eight years old, alone in the world! I feel singularly drawn toward the little fellow, and were it possible, would like to adopt him."

"I claim the first right," said Miriam, looking up brightly and blushing modestly.

"Why, Miriam!" said the mother in surprise.

"I mean it, mamma, if you and papa consent, and I know you will."

"It's a grave responsibility, my dear; though brought to our door, it does appear in the light of a duty."

"And a pleasure, mother."

"Every duty ought to be a pleasure," she answered, smiling, and so the subject rested.

The doctor having paid a last visit to the bedside of his little patient, promised to call again the next day and took his departure.

Miriam's busy fingers had already prepared a dainty breakfast for the little invalid, which he partook of with evident relish. He did not say much, only an occasional "Thank you" when she assisted him in his awkward endeavors to feed himself with his left hand, and when he had ended and she had adjusted his pillows, he sank back on them with a long-drawn breath of satisfaction, murmuring, "Thank you, Miss —"

"Miriam is my name."

"Miss Miriam," he repeated, thus in a few words revealing his boyish appreciation and gentle breeding. The dark eyes were turned on hers as if in inquiry, and Miriam looked in admiration at the frank expression and manly purpose in the face, now no longer drawn with pain, but brightened by the light of the expressive eyes and pleasant smile.

"The doctor has told you, I suppose, about the accident, and how you came to be here."

"Yes, I remember," he replied; "the runaway and all up to the time of the crash. After that I don't know what more happened."

"You were so stunned by the fall that you were unconscious for a long time."

He made no reply to this, but directly asked abruptly:

"Where is Mr. Barnes?"

"Oh, the man you came with? His wagon was badly broken, and he has taken it to the village for repairs."

He seemed to be thinking, but forbore to ask further questions, through fear of being thought rude, contenting himself with watching Miriam's graceful figure fitting about the room, her deft fingers busy in its arrangement.

She noticed this look of perplexity, and seating herself by his side, took the little well hand in hers and pressing it kindly, remarked:

"You are to remain with us, at least for a time, Harry, and I think we shall get on famously."

"Oh, you are very kind, as good as—as my own dear mother could have been," he altered, turning his face to the wall, the bright eyes full of tears. The thought roused up memories of his great loss, and hot and blinding tears coursed their way down his boyish cheeks.

Miriam strove in every way possible to dissipate these mournful feelings. She opened the windows, let in the carol of the morning songsters, and calling "Boz," coaxed the reluctant and good-natured pet into the room, where he stood wagging his long bushy tail, and with his great brown eyes looking inquiringly first at his mistress, then at the strange figure on the bed.

This last stratagem had its desired effect.

"See, Harry, here is Boz come in to ask how you are."

The boy brushed the tears away, and turning, a smile lit up his face as stretching out his hand, he said:

"Good old doggy. Come here, fellow."

After this, Boz was a constant daily visitor to the sick chamber, and when the lad's long imprisonment was at an end, they proved to be henceforth inseparable companions.

The sweet June days passed slowly, and at

last little Harry was able to walk forth again under the pleasant summer sky, and, with his arm still in a sling, pass many an idle hour under the old elms with his good-natured companion Boz, and often with Miriam, who, with her knitting or fancy-work, delighted to listen to the boy's conversation, his quaint rehearsals of history, biography and travels in which his well-stored memory seemed to delight. He possessed that rare gift, a remarkable memory; added to this a fluency and command of language, wonderful for one of his years, rendered him a congenial companion for the young girl.

It was during one of those hours under the elms, when after a conversation with her mother and father—Mr. Wentworth having returned home—Miriam broke the silence by asking:

"Do you like living here, Harry?"

"Ever so much," was the unhesitating reply.

"Should you like to remain with us and be my brother?"

"Very much indeed," said he enthusiastically.

"Well, that settles it, then," said she, smiling. "Papa and mamma are willing, and this shall be your home. I doubt not you will be loving, dutiful, and helpful, while on our part we will love, care for, and educate you."

The boy's face indicated serious thought. At last he said: "I hope I will never be ungrateful," and in a low voice as if listening and lingering over the new name—"dear sister Miriam," then as if to hide his emotion, he turned and walked slowly down the garden path.

As the years advanced the Wentworth household had no reason to regret the adoption of the little waif, so suddenly by an all-wise Providence thrust upon their care.

He grew to be a dutiful and loving son and a devoted brother, and more than fulfilled the bright promise of his early youth in intellectual culture and sterling principles, without which latter, no man can reach true manhood.

Though Miriam did not fail to remember the severe lesson, yet she often with reverent gratitude and humility saw in it the "great good" that had evolved from it.

Irrelevant as it may appear to our story, yet it will not be out of place to add that Dr. Lathrop did not in the least show any disposition to discontinue his visits long after Harry's recovery. On one pretext or another he sought the cottage under the elms. Sometimes it was a book for Harry, sometimes a new piece of music for Miriam, between whom his admiration seemed equally divided. There was some ultimate end toward which he was drifting. What was it?

The Tooth Will Come Out!

The tooth that means to come out, says the *Pittsburg Chronicle*, has conquered all men and all women. It has been soothed and coaxed. It has been held near fires until the cheek abutting it was nearly roasted. It has been chloroformed. It has been fed on essence of juniper and essence of peppermint and essence of cloves. It has been filled. Its nerve has been killed. Its miserable owner has been immured from fresh air like a prisoner.

This tooth sometimes sleeps, but it never forgets. It is most treacherous when it seems tranquil. It ulcerates at the roots when its possessor is about to indite a poem, take a journey or get married. It longs for release and hungers for the forceps. It may seem to compromise, but it merely bides its time. Its favorite recreation hour is just after midnight, when druggists and dentists have retired. If the ground is covered with snow and the winds piercing, it is fairly diabolical with activity.

There is no use in contesting issues with this mutinous and remorseless molar. Fight rheumatism, if you will, but throw up the sponge in this altercation. You have blistered your mouth and ruined your digestive organs and quarreled with your family and friends long enough.

Tell your dentist to pull your head off and the accursed grinder with it, and live on soup, if need be, but have peace once more. Jerk the abomination out and it will be content, the everlasting plague on it.

OLIVES AU NATUREL.—The Santa Rosa Democrat, after mentioning the familiar fact that an olive which has not gone through the pickling process discounts wormwood in bitterness (and, it might have added, a green persimmon in astringency) relates how an old gentleman who, according to his own assertion, has been a great reader, happened into a real-estate office the other day where a branch containing several well-ripened olives was being examined and discussed by a number of gentlemen. The old man soon became quite interested. Some one handed him two of the berries, asking at the same time if he had ever tasted the fruit in its natural state. "No," said he, as one of the glossy berries disappeared behind his gray mustache, "I have never eaten of the fruit associated with that sacred mount of which we read in the good book, but I have read much about their modern cultivation, and—ah! oh! oh!" He never finished the sentence. After a fruitless effort to remove the impression made on his sense of taste, he joined in the laugh.

The Champion Liar.

One Sunday morning while stopping at Rawlins, Wyoming Territory, I took a stroll to the cemetery. In this cemetery, as in many others that I have visited, they covered the graves with stones, to prevent the animals from digging or making burrows in the soft ground.

As I went in I noticed a fine-looking elderly man walking leisurely around. As we met I asked him if he could tell me why the graves were all covered with stones.

"My friend, you are a stranger here, otherwise you would not have asked that question. It is done to prevent the wind from blowing the coffins out of the ground. A few years ago, before we began rolling rocks upon the graves, it was no uncommon thing to see a coffin sailing through the street, with a bony arm or leg hanging over the sides. One time about a dozen of us were down there in Jim's saloon, when bang came a coffin through the door! It belonged to a chap who used to play poker with Jim in that very room where we were. When it struck the floor, he rolled out. I always thought he headed in there on purpose to be revenged on Jim. If he did, he won the pot, as it broke Jim flat. After that remarkable visitation, free whisky was no temptation for the boys to go there. So he has rented it for seven dollars a month to hold coroner's inquests in.

"When the wind starts in to blow in this country," continued the champion liar, "most all other business stops. There was a chap down East who got the idea that he could burst up a cyclone by shooting a charge of powder into it. We had a gun cast to try the experiment. After laying around Iowa and Kansas for a couple of years, trying to get a shot at a full-grown cyclone, a man from up here told him if he could break up one of these wind-storms he would have the softest kind of a snap on a cyclone. One day there was a flit car set off here, with a gun on board as long as the car, and about ten feet across the muzzle. He had it set up on that hog-back hill over yonder. About eight o'clock one morning, after he had everything ready, the wind began to get up a head. At ten, one of the boys told him he had better shoot, or the wind would blow it off the hill. Well, he set it off. It made a thundering racket, and I thought, for a minute, he had knocked the tar out of the wind, but the next gust knocked the breech out of the gun, and of all the deafening noises I ever heard the most ear-splitting was made by the wind blowing through that gun! People ran into their houses, shut themselves up, and wrapped bed-quilts around their heads.

"The mayor ordered it taken down. The owner hired a lot of us to help him. He happened to get in front of it and the wind took him through like a rifle ball! He never showed up here again. The next gust took the gun shrieking over the range. A short time ago some parties came from Denver to put down an artesian well. They were down about 600 feet, when late one night the whole town was turned out by a noise that sounded as though about a million railroad whistles were blowing. Some thought the gun had got back, while others argued that the wind had blown a hole through the mountain. When daylight came we found that the bottom of the artesian well had blown out and the wind was howling down through, and not a drop of water to be seen. They tried to sell that bottomless and eternally shrieking hole to the city as a 'curio.' But it was declared a nuisance and filled up.

"There is the bell for Sunday-school," he hurriedly added. "I have a class to teach, so I will have to bid you good-morning."

I was so stunned by the grandeur of the man's lying that I allowed him to get away without shooting him.—*Elm Wood in N. Y. Weekly.*

Don't Cross a Bridge Till You Come to It.

Once upon a time a man and a woman planned to go and spend the day at a friend's house some distance from their own. So one pleasant morning they started out to make the visit, but they had not gone far before the woman remembered a bridge they had to cross, which was very old, and was said to be unsafe, and she immediately began to worry about it.

"What shall we do about that bridge?" she said to her husband. "I shall never dare to go over it, and we can't get across the river in any other way."

"Oh," said the man, "I forgot that bridge. It is a bad place. Suppose it should break through and we should fall into the water and be drowned!"

"Or even," said his wife, "suppose you should step on a rotten plank and break your leg, what would become of me and the baby?"

"I don't know," said the man, "what would become of any of us, for I couldn't work, and we should all starve to death."

So they went on, worrying until they got to the bridge, and, lo and behold! they saw that since they had been there last, a new bridge had been built, and they crossed over it in perfect safety, and found that they might have spared themselves all their anxiety.—*Selected.*

YOUNG FOLKS' COLUMN.

Ellie's Soldier.

Almost thirty years ago, a little flax-haired girl named Ellie lived in a little cottage among the hills of New Hampshire. She was very happy with her father and mother, her one sister, her big gray cat "Fremont," and her dear rag dolly named Ida Bell. She had a big brother, too, but he was not at home. He was a soldier.

The big brother's name was Harry. He had come home one day in a blue coat with bright brass buttons that made him look taller and grander than ever, Ellie thought, and when he went away again he had taken her up in his arms and kissed her very tenderly, and Ellie noticed her mother's sweet face was very pale, and that her father had to clear his throat a good deal when he said, "Good by, and God bless you, my boy."

But little Ellie felt very proud to have a soldier brother, and when long letters came from him, telling funny stories of living in a tent, with many hundreds of other soldiers all in tents, and of cooking his dinner over a little fire out of doors, and of marching to the sound of music, the little girl thought it must be all like a great big picnic, and that it was a fine thing to "go to the war."

But there came a sad time in the little cottage when the merry letters did not come and father and mother said there had been a great battle and that Harry was "missing." Ellie did not know very well what that meant, but she knew that weeks and weeks went by and still there was no letter. And at last she knew, by the things she heard her father and mother say when they thought her busy at play, and by their sober faces, that they were afraid her big, strong, beautiful brother would never come home any more.

But little Ellie never believed that, and every morning she hoped he would come home that very day, and looked many times down the road, thinking perhaps she should see him; and she never lay down in her little bed at night without adding to her prayer, "And please bless my soldier and let him come home tomorrow."

She slept with her sister in a little room right off the sitting-room, and the door was always left a little way open. One night, after she had been asleep a long time, she awoke suddenly, thinking she heard voices. Her father often sat up long after the others were in bed, and she thought he must be speaking to some one. Then she heard another voice that sent a thrill all through her little body. She could not see anything from the corner where her little bed stood, but she sat up and listened.

A bright light was shining through from the sitting room, and she heard a strong and gentle voice say: "No, don't disturb them to-night. I'll lie right down here on the floor." Ellie's heart beat so hard that she could not hear what her father said in reply; but suddenly the light went out and all was still.

Who could it have been? Was it, could it be, the darling brother? It was his voice surely, but nobody seemed to be awake now. Her sister was sound asleep by her. Could she have dreamed it, after all?

She was only a little girl, and she soon grew sleepy while trying to think if anything so beautiful could be true; and soon she was really dreaming.

But she woke very early in the morning, before any one else in the house; and her first thought was of what she had heard in the night. Was it a dream? It was just growing light. She would get right up and find out.

Out of bed she softly crept, and through the door into the sitting-room. The rosy dawn was just coming in at the east window. There on the floor lay somebody wrapped in a big blue soldier's overcoat. Ellie's little bare feet made no noise as she stole along the floor and knelt down by the tall figure. The head rested on a soldier's knapsack, and the close brown curls were the same she remembered so well. The face was brown and very thin, and the eyes closed in sleep; but it was the dear, kind face of her big brother Harry. But it all seemed so strange; could it be real? She put out one little finger and timidly touched his forehead.

It was enough! The eyes flashed wide open and the big strong arms clasped the little white night gowning girl in a big bear-hug. No doubt now whether he is real or whether she is awake! Her shouts of joy rouse all the rest of the household, and out they come without waiting for clothes, that small matter, like everything else, being forgotten in the wonderful joy that had come. Only the father, who had known it all night, could get his wits together enough to go about the regular morning duties for a long time.

As for little Ellie, the big brother himself dressed her, and then she sat on his knee and heard his wonderful story of escape from prison and long sickness, and how at last he had got back to his old regiment and straightway been given a furlough to come home and rest and gain strength. And, in the happy days that followed in the cottage, little Ellie at least forgot all the pain that had gone before.—*S. S. Times.*

DOMESTIC ECONOMY

Bread.

The Young People's Society of the First Congregational Church of San Francisco recently listened to a lecture by President Horace Davis of the University of California. His subject was "Bread."

The lecture-room was well filled with an interested and inquisitive audience, who for some time previous to the opening remarks studied the various charts hung upon the wall to illustrate the lecture. One of these represented a grain of wheat, very much enlarged, showing the different parts of which it was composed. There was the silica, or outer covering, the bran, the starch, the flour and gluten and the germ. Another diagram showed the improved rollers now used for crushing the wheat, instead of the old-fashioned mill-stones. There were also shown the component parts of wheat and flour, both by the chemist's and the millers' analysis.

The General Analysis.

For instance, the chemist's analysis of wheat gave: Water 9.94, carbo-hydrates 76.18, fat 2.08, fiber 1.56, albuminoid 8.60, ash 1.84. The millers' analysis was: Flour 77, offal 22, waste 1. The chemist's analysis of flour was: Water 12.96, starch and dextrin 70.33, cellulose .77, sugar .68, insoluble albuminoids 9.40, soluble albuminoids 4.20, fat 1.08, ash .58. The millers' analysis of flour was: Water 13, dry starch 77, gluten 10. The result in making bread is as follows: Flour 100 pounds, water 49 pounds; less 19 pounds by evaporation, and you have 130 pounds of bread for every 100 pounds of flour.

It is necessary, said the speaker, to have gluten in the flour in order to make light bread. Rice has no gluten, and cornmeal a very slight trace, and for this reason wheat is the accepted food of civilized nations. It contains both fat and muscle-making properties, while other breads contain only muscle-making properties. The starch in the flour is what fuel is to the furnace. It gives heat to the body. The wheat of California is not the best wheat for making bread-flour. The long, dry season makes the grain very dirty, and this dirt has to be separated from the grain before it is fit for food.

Wheat is ground now between chilled iron rollers instead of stones, and it has to pass through a great deal of handling. The grain is first cracked by being run between two rollers, which have small teeth. One of these rollers revolves faster than the other. It is then passed between another pair with finer teeth and then sifted. Then through four more pairs before it comes to the smooth rollers, each time being sifted through bolting-cloths. Finally the flour thus obtained is bolted, the bolting-cloths being of the finest quality of silk, made only in two places in the world. The silk is worth \$4 a yard, and is 40 inches wide.

Milling the Grain.

In these different processes the bran, silica and other matter is separated, and only the starch and gluten retained. This gluten, separated from the starch, is nearly like india rubber, and consequently the quantity is very small, otherwise the bread would be indigestible. It holds the escaping gases from the yeast or powders used, and thereby makes the bread light. Rice or cornmeal not containing gluten allow these gases to escape, and therefore when baked present a soggy, heavy bread. What is known as graham bread is not a healthy bread in the general acceptance of the term. It contains the silica, itself indigestible, but in the case of an invalid it helps to digest the remainder.

At the conclusion of the lecture President Davis allowed himself to be bombarded by a fusillade of questions, to all of which he gave suitable replies. He exhibited the wheat in its various transitions, from the full grain to the fine flour; also, some specimens of dough, some of gluten from which the starch had been eliminated; some of starch from which the gluten had been extracted; some of farina, bran and other wastes, all separated, and explained the uses of each in nature.—*Call.*

Prunes.

To Make Them Perfectly Delicious.

Take one pound of dried prunes, wash clean, pouring off the water; let stand an hour or so to soften slightly. (This delay is not absolutely necessary.) Then add just enough water, sweetened to taste, to boil them in. Cook till well done, then cool them; when cool, have prepared the whites of five eggs beaten to a "stiff," add this to the prunes, liquor and all; heat the whole carefully till quite light. Then place in an oven moderately hot for 20 minutes. Then cover well with sweet cream and cool. Serve it hot or cold, always with sweet cream; sweetened milk would do.—*Mrs. H. C. C., Fresno.*

A SATISFIED SUBSCRIBER.—J. Pattinson, a subscriber of the *RURAL* in San Diego county, writes: "We esteem the *RURAL PRESS* so much that if we could only take one paper it would be the *RURAL*." We hope he may never be less pleased with it.



A. T. DEWEY.

W. B. EWER.

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Notice—Grangers' Business Association.
Seeds and Plants—W. R. Strong & Co., Sacramento.
Shorthorn Cattle—R. Ashburner, Baden Station.

See Advertising Columns.

The Week.

The showers, of which the measure was given in last week's *RURAL*, have been followed by clear weather. The rains served an excellent purpose, so far as they went, but have not materially changed the situation except at the South, where the fall was heavier than in central and northern localities. The greater part of the State is therefore still anxious as to the season's outcome, and a "great storm" is a thing most ardently desired.

In public affairs the change in the administration at Washington has occupied chief attention. The quiet disposition with which the American approaches such changes is a tribute to our national stability. In Europe such incidents are viewed in the light of crises and are approached with misgivings and with doubled police vigilance. In the United States there is a little band music, a few thousand gallons of terrapin, an oration and a torch-light procession, and the event passes into history so quietly that unless one happens to be looking he does not notice its entrance. After all, the American method is better, but it may take the rest of the world a long time to get up to it.

SAN LUIS OBISPO is the leading dairying county of California, having produced over 3,000,000 pounds of butter and more than 1,000,000 pounds of cheese the past year.

The New Secretary of Agriculture.

The new President has appointed Ex-Governor Jeremiah M. Rusk of Wisconsin to hold the portfolio of agriculture in his Cabinet. Governor Rusk is not among the candidates proposed for the place by the leading agricultural Order to whose efforts the establishment of the new secretaryship is due, but he is a man of good repute and not only sprang from the farm, but chose agriculture for his means of livelihood after attaining his majority, and was one of the pioneers in laying the foundations for the present vast agricultural interests of the Northwest.

We are indebted to the courtesy of the San Francisco Call for the portrait of the new Secretary.



Hon. Jeremiah Rusk.

retary which we give herewith. In the account of his life it is stated that he was born in Morgan county, Ohio, in 1830, and worked on his father's farm until he reached his majority. He was 23 years of age when he removed from the State of Ohio into Wisconsin, taking a farm near Viroqua, Vernon county. In 1862 he entered the Union army and began a military career which was distinguished and honored. He was Major and afterward Lieutenant-Colonel of the Twenty-fifth Wisconsin Regiment, and Brevet Brigadier-General. Shortly after the close of the war, he was elected State Bank Controller, an office which he filled from 1866 to 1870. His next public position was that of member of the Forty-second Congress in the House of Representatives. He served three consecutive terms in Washington.

In 1881 Mr. Rusk was elected Governor of Wisconsin. In May, 1886, Governor Rusk gained a national reputation by his firmness in suppressing the anarchist riots in Milwaukee, and was a prominent Presidential candidate at the last Chicago Convention.

TAXING WANDERING FLOCKS.—There has been quite an issue made at the present session of the Legislature to secure an amendment to the county government bill which would limit or prevent the taxation of wandering flocks and herds in the counties which they may visit for grazing. So far the movement has failed, for the county government bill passed the Senate on Tuesday on a second reading without any amendment affecting the present method of taxing sheep and cattle. That will give the Supervisors the power to levy any tax they see fit on all domestic animals.

PERSONAL.—We were favored a few days since with a call from J. P. Shumway, M. D., an old subscriber formerly of Syracuse, N. Y., now of 1267 Sixth Ave., Oakland. He was accompanied by his friend, Mr. J. M. Sherwood of Onondaga county, N. Y. We like to note the arrival of such people in California.

A FARMERS' UNION ASSIGNS.—The directors of the Farmers' Union of Livermore valley made an assignment for the benefit of creditors on the 5th. The assignee will continue the business, and the assets will probably exceed the liabilities, although they cannot be realized on at present.

A CANNERY COMPANY with \$30,000 capital has been organized at Colusa.

Olive Oil in Sonoma Valley.

The rich, clear, delicately flavored oil made by Col. George F. Hooper, from olives grown on his ranch near Sonoma, has been repeatedly spoken of in the *RURAL PRESS*, and it will be remembered that both his olive oil and his pickled olives were awarded premiums at the Mechanics' Fair in this city two years ago.

Early this week it was our fortune to be the Colonel's guest at "Sobre Vista" (as he and Mrs. Hooper call their charming home), and we especially enjoyed seeing the olive grove and the apparatus for oil-making, under the kindly guidance of Mr. Geo. W. Hooper, a nephew of the Colonel and his right-hand man upon the property.

The olive orchard sits a little way up the vale-side above the house, on a slight knoll, whose rich, dark-brown, loamy soil holds moisture even in mid-summer, does not bake at all, and can be plowed at almost any time. There are about 200 trees—say 150 Mission and 50 Redding Picholine—set 24 feet apart and occupying somewhat less than three acres.

Those of the Mission variety are 14 years old from the cuttings, and the largest are a yard or more in girth near the ground. Mr. Hooper has had to prune them severely to keep their boughs from meeting, and thinks 40 feet apart would be a better distance for planting.

The Redding Picholines were well-rooted trees a year old when obtained from Mr. West of Stockton in 1880, but they never bore (to speak of) until last year, when their yield amounted to but 34 pounds.

The wash referred to last week, which has proved so effectual a destroyer of the black scale, is made as follows: 15 pounds sulphur (French sublimated preferred); 10 pounds whale-oil soap, best quality; 4 pounds concentrated lye. Mix with 12 or 15 gallons of water and boil well—say half an hour; then add enough water to bring the whole quantity up to 60 gallons. When the wash is to be used, Mr. Hooper heats it to about 130° Fahr., which seems to make it spread better, and applies with a "Climax" force-pump.

With this, as before mentioned, he gives one spraying in February or March, and another in July or August, following it up with a warm solution of soda, just before the fall rains come to complete the cleansing. Now and then a tree has been gnawed and nearly girdled by wood-rats, but these troublesome rodents are not many.

For oil-making the ripened berries are carefully picked by hand (which costs from 75 cents to \$1 per owt.), and spread to dry upon the floor of a loft where the air circulates freely. They are stirred and turned over, from time to time, with a wooden rake to prevent their molding and facilitate drying, and in the course of 30 days, or thereabout, are ready to be ground.

At the outset of his experiment, looking about for some cheap means of grinding the olives in small quantities, Col. Hooper found at the shop of Hawley Bros., in San Francisco, a "Keystone" oiler-mill (No. 2), which answered the purpose nicely. This device has two chilled-iron rolls, one concave and the other convex, placed horizontally. These rolls can be set at any desired distance apart; they are so geared that the convex makes two and a half revolutions to one of the concave; they have low, sharp ridges, running lengthwise, and when the berries are fed from the fan-hopper into this little mill, as one admiring spectator remarked, "it just chews them up," stones and all.

The ground olives are then placed in an 18-inch tub, lined with coarse Russian crash, and put under the wine-press. (Not wishing to mix oil and wine in the manufacturing process, the platform of the press has been fitted with a tin cover, which keeps the oil from the wood.) After pressing once, the "cheese" is broken up and subjected to a second pressure; then they break it up again, mix water with the fragments and press a third time; after which the pomace is fed to the hogs or used for fuel.

The juice from the pressing is caught in large tin vessels, where they keep it for about a month, skimming it every little while, and occasionally turning the liquid from one tank into another to promote the separation and rising of the oil. In reply to a query as to what proportion the oil bears to the whole bulk of liquid expressed, Mr. H. replied: "About one-fourth of the first pressing and half the second." He

also said that it takes about 70 pounds of the fresh fruit or 49 pounds of the dried to make a gallon of oil.

Being invited to taste the contents of the different tanks, we found the new-made oil delicious. A small quantity from the Redding Picholine had a distinctive nutty flavor which was quite agreeable, yet might not wear so well as the blander product of the Mission.

Before bottling the oil they filter it through cotton batting. A convenient filter is made by fitting a large tin pail with four or five perforated false bottoms or strainers. These are graded in size, so as to lie one above another, an inch or two apart, in the tapering pail, with layers of batting on each strainer. At the lower end is a funnel through which the filtered oil runs into the tank, from which it is drawn by a faucet into the bottles.

Of course it is understood that this work has been chiefly tentative. These gentlemen have been trying to see what they could do in a small way. The oil they made in 1887 amounted to some 30 cases—60 gallons; in 1888 not quite so much; this year it will doubtless be more. Enough has been done to demonstrate the fitness of this valley for olive culture and the worth of the product. Col. Hooper has several thousand cuttings now in nursery and will probably be able, another season, to plant out 20 or 30 acres.

He is so pleased, also, with the efficiency of the little "Keystone" mill, that he thinks the same plan might be advantageously applied in constructing machinery for olive-crushing on a larger scale.

Much might be said of the 100 acres of vineyard, the 80 acres of prune trees, and various lesser matters at "Sobre Vista;" but so far as our present writing goes, we must grant a monopoly to the growing olive interest.

Lower California Wanted.

Some weeks ago the following resolution was offered in the House of Representatives by Congressman Vandever of Southern California:

Resolved, That the President be requested to open negotiations with the Republic of Mexico for the cession to the United States of the peninsula of Lower California upon terms that shall be mutually just and honorable to both countries, and that shall tend to strengthen the ties of friendship between the two great American republics.

If we really want Lower California, it is not now the time to buy. The reported discovery of gold mines, whether sensational or real, would just at present make the Mexican price for the peninsula greater than we could afford to pay. By the way, if the stories prove true and our citizens move south as rapidly as they are now reported to be doing from San Diego and Los Angeles counties, the next proposition will be by the Mexican Government to see what figure the United States will place upon California.

NO MORE ENGLISH SPARROWS WANTED.—The farmers of this country are reported to be agitated over the proposition made by local sporting men to bring a number of English sparrows from the East to be used in shooting matches and are declaring their unswerving hostility to the scheme. It is reasonable to suppose that some of the birds will escape, and through their remarkable fecundity, the country will soon be at the mercy of the little pests. The damage to the orchards and grain-fields of Southern California will be great, and the argument is also advanced that the wild song-birds that lend such a charm to this country will be driven out by the imported article. If no other method promises success, the Legislature will be importuned to make the importation of the birds a punishable offense. It would be a good regulation. If the sportsmen need birds, let them capture the "California linnets," which are such bud-eating pests that we can well spare them. There is no need of bringing in other such birds.

DOGS AND FOWLS.—A committee of the California Poultry Association attended the meeting of the Pacific Kennel Club last Monday night, and arrangements were made to hold a poultry exhibition in conjunction with the coming bench show.

THE COST OF BREAD.—The distribution of bread after it is baked now costs the average workman in a city as much as it does to grow the wheat, mill it, barrel it, move it 1500 miles and convert it into bread, all put together.

Inauguration of President Harrison.

We give herewith a portrait of Benjamin Harrison of Indiana, inaugurated on Monday of this week the twenty-third President of the United States. The arrangements for the inauguration were perhaps the most complete and elaborate ever made, and the affair was as impressive and satisfactory as the

robes of office and a Testament in his hand. The rain fell on the silver hair of the Chief Justice, which the cold March wind disheveled. This scene was witnessed by a drenched and shivering crowd, who crowded in front of the portico of the Capitol, and had waited in the blustering wind to see one administration go out and another go in.

And yet the inauguration was successfully accomplished. The new President read his

served his district two terms in Congress. His grandfather was that famous leader and general, who, after a life of brilliant and distinguished service in the forum and the field, was elected President of the United States, after the most exciting campaign of 1840. His great-grandfather was one of the heroes of the Revolution, Governor of Virginia, and a signer of the Declaration of In-

dianapolis, his present home. On breaking out of the Rebellion he home, a successful practice, and all that makes life pleasant, in response to his country's call for her defense. The same diligent application that contributed to his success in peace, enabled him to succeed in war, and the proclamation of peace found him wearing the stars of a general. In 1881



BENJAMIN HARRISON, TWENTY-THIRD PRESIDENT OF THE UNITED STATES.

weather would allow. Those who need a reminder of what March can do at the East in the way of weather may read the following extract from a telegraphed account of the inauguration:

Benjamin Harrison stood with uncovered head in a cold, drizzling rain, with a raw wind blowing in his face, in front of the National Capitol to-day, and took the oath of office as President of the United States. Grover Cleveland stood beside him, with his hat in one hand and an umbrella in the other, which he held over Mr. Harrison. In front of Harrison and Cleveland was the small figure of Chief Justice Fuller in his

inaugural address, a paper with many excellent points, and the manifestation of joy, which took form in torchlight parades and a grand inaugural ball, was not dampened, in spirits at least, by the unfortunate weather.

Vice-President Morton took his oath of office and assumed the presidency of the Senate. Thus the new administration begins its labors.

Benjamin Harrison was born at North Bend, Hamilton county, Ohio, August 20, 1833, and is therefore in his 56th year. His father was John Scott Harrison, who

dependence. One of his ancestors was a general of the Commonwealth of England, before Cromwell's usurpation, and whose unflinching Republicanism cost him his life in the early days of the Restoration. His immediate descendants came to America and founded the family in this country.

Benjamin Harrison received a classical education, and is a graduate of Miami University, Oxford. Immediately after graduation, he commenced the study of law at Cincinnati, Ohio. In 1853 he was married, and in 1854 he established himself at In-

he was elected to the United States Senate, serving out his full term. In 1884 he was prominently canvassed as a Presidential candidate. The memorable convention of 1888, resulting in his securing the nomination, is still fresh in the minds of our readers, and the smoke of the political conflict which ended in his election has only just cleared away.

Those who know him best give assurance that in Benjamin Harrison the country will have a wise, conservative and eminently safe President.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

HOPS FOR LONDON.—San Leandro Reporter, March 2: James Linfort shipped 110 bales of hops to London this week. He expects that the shipment will reach its destination in about three months, and from the reports of the English markets, there is little doubt that the hops will sell for more than they would in San Francisco.

Fresno.

THE CROPS.—Fresno Republican, March 1: C. W. Callahan has just returned from a trip through the grain-growing districts, and reports the growing crops in a most satisfactory condition, and the prospects good for the largest output of cereals ever known in the county. The late shower came just as it was needed, and along the eastern foothill section the rainfall amounted to nearly three-fourths of an inch.

SALE OF A RAISIN VINEYARD.—Yesterday the well-known raisin vineyard of E. Kennedy was sold to Mr. Dudley for \$75,000. In 1887 Mr. Kennedy purchased this quarter-section for \$9600; at once planted it to raisin grapes, and put up some cheap farm buildings. The general opinion is that he sold his vineyard for much less than its actual value, as it is one of the finest pieces of property in the county. Mr. Kennedy says that he sold it for the reason that it was a cash transaction, and that he was not an expert in the vineyard business, and could not attend to it. The vineyard is located among the best in this locality; being adjoined on the east by the famous Forsyth vineyard, on the west, by the equally famous vineyard of Jos. T. Goodman.

Humboldt.

HORTICULTURAL.—Rohnerville Herald, Feb. 27: On Wednesday evening last, the Humboldt County Horticultural Society was organized here with 17 charter members. The meeting was held in the Town Hall, and the following officers were elected: Geo. E. Stewart, Pres.; Wm. B. Dobbyn, V. P.; J. T. Manon, Sec.; and B. H. McNeil, Treas. The board of directors elected are M. Perrott, Wm. Dinsmore, Wm. Evers, A. P. Campton and E. J. Look. The regular day of meeting is the first Saturday of each month, and persons wishing to join can do so on sending in their application by a member, with a fee of \$2, and receiving a majority vote of the members present at the meeting. The object of the society is to advance the interests of horticulture and fruit-growing in this county and prevent the spread of pests.

SHEEP THRIVING.—Eureka Standard, Feb. 28: H. M. Devoy, traveling in the interest of Christy & Wise, wool merchants, returned last evening from an extended trip over the southern and western portion of the county, taking in Garberville, Round valley, Harris, Blocksburg and Upper Mad river. Everywhere the people interested in wool-growing are jubilant and look forward to a prosperous year. The mild winter has allowed the grass to grow; feed is consequently abundant and the sheep in excellent condition. The crop of lambs is large, especially on the South Fork and about Garberville. The sheepmen are very much annoyed by coyotes, and say the animals are more numerous than for several years past.

COYOTES.—Judge Carr had an attraction in the Police Court Saturday and Sunday. It was nothing more nor less than a coyote. Min. Hunt, who has been in the employ of L. C. Beckwith on Upper Mad river, brought it to town, and will receive \$16 from the county for having dispatched one of the pests. Min. says there are a large number of coyotes around the sheep country, and that they have managed to make several of the "critters" bite the dust in the last two or three weeks.

CHICKEN THIEF PEPPERED.—There is a gang of chicken-thieves in the city and a large number of coops have been visited the past week. The thieves have had to pry off locks to get into several chicken-houses that have been robbed, thus adding the crime of burglary to that of larceny. A man living in the southwestern part of town had his hen-roost visited several nights ago, and then took the precaution to put a good lock on the door. Thursday night he heard some extra noise in the yard, and, going to the window, saw three large boys or men in the yard, one of whom was prying the lock off the door. He warned them to leave, when to his wonder one of the audacious rascals talked back to him in an insulting way. He opened the window and gave the rogue a charge of fine shot in the rear that sent him out of the yard in double-quick time. It is probable that some surgeon had a job yesterday, and the thief may be identified.

Lake.

ALMOND TREES.—Lower Lake Press: D. M. Hanson has completed planting his almond orchard, having now upward of 1400 trees in the ground. Those planted two and three years ago, he reports as the most vigorous upon his place, and now full of bloom.

Los Angeles.

GRAIN ABOUT NEWHALL.—L. A. Herald, March 2: So far as information is now attainable, there are over 6000 acres in cereals in the valley. Much the larger moiety of this is in the hands of the Newhall Farming Co. On these lands there are barley, wheat, oats and

rye. Many think that barley and wheat are the only cereals raised in this section, but oats and rye yield fine crops here. Last year, the Newhall Co. thrashed a large amount of rye, the greater part of which was shipped to Hamburg, Germany. There is usually an active demand for this grain for the German market, and it brings good prices. A much larger area ought to be sown to it, and it ought not to be shipped abroad. In the coming time when paper is made in large quantities in Southern California, rye straw will be in active demand.

PROFITABLE ORANGES.—J. H. Brewer has a small orange orchard in the Vernon district; there are about 250 trees or 2½ acres. Yesterday he sold the crop for \$1000 on the trees. It is not claimed that even the Vernon district, fertile as it is, is the best for orange culture. The foothill country is generally conceded to be better.

CEREALS AND FRUIT.—There will be larger sowings of wheat and barley in the county this year than ever before. Portions of the Palos Verdes ranch, never plowed before, have been put in grain this year. On the San Pedro ranch the same is true. Well-informed residents of the district estimate that between the Los Angeles river on the east, the Cahuenga mountains on the west, the city on the north and the ocean beach, that is, on the San Pedro, Los Palos Verdes, Sanol, Redondo, Centinella, Cienega, La Bellona, and other ranches along the belt outlined, there is not less than 100,000 acres in grain. The Lankershim Land and Water Co. has 2000 acres in grain, every available acre of their lands being leased out on shares. On these lands there are newly planted 1300 acres of deciduous fruit orchards. The fruits being set out are mostly apples, peaches, pears, plums, apricots, quinces, figs, olives and English walnuts. The planting of walnuts is very liberal.

Mendocino.

FRUIT GROWERS IN COUNCIL.—Ukiah Dispatch-Democrat, March 1: The Mendocino County Horticultural Society held one of its most interesting and profitable meetings last Saturday. There were several new members received, and every one who was present felt that the half-day was profitably and pleasantly spent. The remarks made by our County Horticultural Commissioners, Messrs. Purdy and Thomas, are worthy of special mention. Mr. Purdy thinks we are in a fair way to get ahead of the bugs with proper diligence. It is the opinion of Mr. Thomas that the woolly aphis is in nearly every apple orchard in this section, but fortunately the remedy is cheap and effective.

Sacramento.

WHOLESOME EXERCISE FOR TRAMPS.—Sacramento Bee, Feb. 25: At the regular meeting of the Board of City Trustees this morning, Mayor Gregory said that he had made arrangements for the erection of a frame building in the rear of the city prison, where idle and dissolute men could be set to work breaking rock, to be used upon the streets, and he wanted the board to support him. Warden Aull of the Folsom prison had offered to furnish all the rock necessary at \$2 a carload. The Mayor said that if the men were only kept at work six months, it would do a great amount of good by scaring out hard characters. Of course he would rather give the street work to honest labor, but something would have to be done, too, in the case of the tramps who swarm into the city. A switch will be constructed upon which to haul the rock into the prison yard. The Mayor said there was no excuse for a man being a tramp in California, as work can always be found on the fruit ranches. The proposed plan will do away with the chain-gang, which is now used by the county authorities on country roads. The board passed an order giving the Mayor power to have a necessary inclosure made in which to hold the rock-breakers.

San Bernardino.

AFTER THE CITRUS FAIR.—San Bernardino Times-Index, March 2: Although the fair is over, the good work that it has accomplished will go on. The attendance the last night was good. It is not known at this writing just what the actual receipts and expenses were, but it is roughly estimated that the Board of Trade will have a surplus of \$500 with which to pay off their indebtedness, and that this aid will enable them to get to work and do much for the benefit of this city and county. The Executive Committee of the citrus fair is deserving of the thanks of the whole community for their exertions, and so are the fruit-growers of this county, who by their large and liberal displays made the fair such a success.

San Diego.

EDITORS PRESS:—We have had another glorious rain, which makes the precipitation for the season to date 14 inches. With what rain we now have there will be a good crop of grain, fruit and grapes, but we want 3 or 4 inches more to make a good honey-crop. During an experience of many years I have never seen a large yield of honey with less than 18 inches of rain. With less than 18, the black sage will grow well, but the white will not; the moisture gets out of the ground before the blossoms mature so as to yield honey. It would seem from the reports from different sections that we are favored with more rain than some localities; can it be that the seasons are changing? You know how short a time it is since San Diego county was considered little more than a barren waste. The stranger coming into our charming little valley to-day would think there

was something besides sand and jackrabbits. We have one of the favored spots of our glorious State—what used to be called the upper Sweetwater valley, a section so sheltered by the mountains on all sides that it is free from the coast fogs and the withering blasts from the eastern deserts. The soil near the creek bottom is a rich black loam; farther back it is decomposed granite, fine for fruit, vines or berries. The orchards are mostly young, but no thriffter and finer-looking trees can be found. The raisin grape grows here to perfection. Mr. McFarland and Mr. Sheldon are the largest producers; many others have vineyards that will soon come into bearing. The peach, apricot and in fact the whole list of California fruits do splendidly here. We are just finishing a new school building that will be an honor to the district and will be dedicated about March 15th. I never miss a chance to speak a good word for the PACIFIC RURAL PRESS, which has for a long time been a constant visitor in my family. Even when thousands of miles lay between us, the faithful old PACIFIC RURAL PRESS found us in a foreign country and we have always found it clean, healthy, progressive and instructive, a fit companion for old or young, and now as ever we look for its coming as a dear friend. Oh! I nearly forgot to mention, among other products of our valley, the chickens, which do splendidly and are so healthy. I am very much interested in the poultry department of your paper and especially two of the last reports in Feb. 16th number. I am breeding up and in good time will have a report to make of my Brown Leghorns.—A. W. OSBURN, Dehesa, San Diego Co., Feb. 27, 1889.

San Joaquin.

EDITORS PRESS:—The high hopes of three months ago have been considerably toned down by two months almost without rain. I see by consulting the table in your last that we had a very good share of the rain of Feb. 23d, Tracy showing about half an inch by rain-gauge. Grain is looking pretty well, although rather backward, and as February is apt to be a dry month and spring showers are to be expected in March, we still hope for a fair crop. Nothing could be more delightful in the way of weather than the present, or indeed all the last winter.—MRS. J. M. K., Tracy, March 2, 1889.

San Mateo.

ARTESIAN WATER.—Redwood Times and Gazette, March 2: F. F. Moulton has had an artesian well bored on his premises at Fair Oaks. At the depth of 185 feet he struck a fine stream of water, which rose to within 30 feet of the top. The well is eight inches inside with an outside pipe 12 inches in diameter and cemented between to prevent surface water from entering.

Santa Clara.

PACKING COMPANY INCORPORATED.—San Jose Mercury, March 3: Articles incorporating the J. M. Dawson Packing Co. were filed in the County Clerk's office yesterday. The purposes of the company are to acquire and sell real estate, deal in fresh, canned, sealed and dried fruits and vegetables and other articles, and to carry on the business of canning and drying fruits, etc., to handle tin ware and other canning materials and to receive goods in storage. The corporation is to exist for 50 years, have five directors, the names of whom for the present year are E. J. Dawson, E. L. Dawson of this city, M. H. Myrick of Santa Clara, Geo. W. Beaver of S. F., and Geo. H. Wheaton of Oakland. The capital stock is \$100,000 divided into 1000 shares of \$100 each, and the amount of stock subscribed at present is \$85,000. E. J. and E. L. Dawson each own 250 shares and the remainder is divided between G. W. Beaver, M. H. Myrick, W. E. Davis, G. H. Wheaton, J. A. Folger, L. P. Drexler and H. Wadsworth, who have 50 shares each.

Sutter.

ORCHARD EXTENSION.—Farmer, March 1: G. F. Starr has just finished planting an addition to his already fine orchard above Yuba City. He has now 5300 fruit trees, most of which have been bearing for several years, besides a large vineyard of choice raisin and table grapes. The following is a list of the trees and vines planted this season: Peaches—500 Tuckan cling, 160 Wheatland, 150 Muir, 200 Hale's Early, 400 Wager, 300 Winters and 100 Old-nixon. Prunes—300 Tragedy. Cherries—100 Royal Ann, 200 Black Tartarian, 200 Centennial. Pears—800 Bartlett. Grapes—5000 Muscatel, 3000 Zinfandel and 600 Thompson Seedless.

Santa Cruz.

OLIVE AND ORANGE.—EDITORS PRESS:—A few days since I visited the mountain ranch of Mr. Pilkington & Son. They have 200 acres of land with large orchards of the finest varieties of apples, peaches, etc. The son, Mr. H. B. Pilkington, invited me out to see his olive orchard, where he has 500 healthy-looking trees, two years from the setting, of the Picholine variety. His trees were one year old when he set them out. I think his olive trees are the most thrifty, considering their age, that I ever saw. On the southerly slopes of the Santa Cruz mountains, facing the Bay of Monterey, is, in my opinion, one of the finest sections in the State for olive production. Mr. Pilkington gave me an orange from a seedling which originated on his place. It is seedless, of fair size, thin skin, juicy and richly flavored, divides readily into sections, leaving very little pulp when the juice is extracted. I think it

will prove a valuable acquisition among the citrus fruits for Central and Northern California.—O. F. SHAW, Santa Cruz, Feb. 15, 1889.

BEEF ACREAGE.—Pajaronian, Feb. 28: The following farmers have contracted to plant the acreage of beets opposite their names this season: [61 names.] Total, 621 acres. The following have promised to plant the acreage of beets opposite their names, providing the season is favorable: [33 names.] Total, 446 acres.

TRAPS FOR SQUIRRELS.—J. Giberson, who purchased Mrs. Brower's farm near Moss Landing, last fall, is using steel traps in his warfare against squirrels, and finds that the best and cheapest way of clearing out the pest.

Tehama.

A CHEERFUL OUTLOOK.—Red Bluff Sentinel, March 2: Up to this writing, 12.28 inches of rain have fallen this season. The crop in this county looks fine, and grain and grass are growing rapidly, although there is some winter-sown grain that has not come up. Stockmen report fat sheep, lots of lambs and a prospectively fine clip of wool—probably the best spring clip in 15 years. The fruit crop has not been damaged the least bit; no frost to hurt anything. Tree and vine planting goes on apace, with the prospect that a larger acreage will be planted than in any two years previous.

ARTESIAN BORING.—Red Bluff Cause, March 2: We made a visit to the artesian well Wednesday afternoon. Mr. Fox was busily engaged in drilling, but making slow progress on account of having struck a bed of black sand—it fills in so. "In rock," said he, "I can drill 35 or 40 feet a day, but I can't make that progress in sand." The well is now down 1684 feet, and water rises to within 15 feet of the top. Three sizes of casing have been used—10-inch, 8-inch and 6-inch. The 10 inch casing goes down 496 feet and shuts off all the surface water. The 8-inch casing goes down 1140 feet to the top of the sandstone. The 6-inch casing extends down 1682 feet, and will be used until the well is completed. He has bored through sandstone, sand and cement, encountering a great deal of sand, which has made the work slow. Mr. Fox is well equipped for the work. He has a 25-horse power engine, and is well supplied with casing drills, etc. The drill he is now using weighs 4800 pounds. The water is now very muddy, but before the six-inch casing was put in was clear as crystal. It is not known whether artesian water will be struck or not, but the Board of Supervisors has concluded to have the well bored down 2000 feet.

Tulare.

LOTS OF LAMBS.—Visalia Times, Feb. 28: Luke Howeth, the extensive wool-grower of Fountain Springs, was in this city Tuesday. He stated that this season has been a good one for sheep-raisers, and that the present month has been the best one for lambing he has ever experienced in this country. He marked his lambs only a few days since, and figured up an increase of 103 per cent. This is extraordinary, the average yearly gain being about 90 per cent. There has been an entire absence of cold weather this month, and feed has been abundant and nutritious, which accounts somewhat for the increase of lambs.

Yuba.

WATER FOR ALFALFA.—Cordua Cor. Appeal: Grant & Sall have begun operations to bring water for irrigating purposes through their old ditch running northwest from the Yuba river. Both of these irrigation-enthusiasts contemplate successful cultivation of alfalfa by means of river-water. The proprietor of the well-known Hall stock-ranch has begun the preliminaries to raising water by means of steam-power for irrigating alfalfa. We understand that a large well will be sunk, the water to be pumped into a reservoir.

ARIZONA.

FINE FEED ON THE RANGES.—Phoenix Herald, Feb. 28: F. B. Moss has returned from his range on New River, where he has been rusticated and looking after his cattle. Mr. Moss states that the unusual hard winter rains have had the effect of making the stock ranges in that region better than were ever known before, and (something almost unheard of) a great many cattle are dying from bloat, owing to the greenness and luxuriance of the grass.

OREGON.

THE SILO A SUCCESS.—Hillsboro Independent: Col. T. R. Cornelius last week opened his silo, and it was a surprise to many to see how well the ensilage had been preserved. With the exception of two or three inches on top, the whole mass was found in a perfect state of preservation. This removes the doubts entertained by some as to the possibility of preserving feed by this method in this excessively moist and warm climate. Col. Cornelius began filling his silo about the 1st of last September, and sealed it up about the 1st of October, so that it remained sealed about 3½ months. It was filled with green corn fodder, cut into half inch lengths, and as there was no chance for evaporation, the ensilage retains all the juice and moisture which the green corn fodder originally contained, making it very rich feed, the cattle eating it with great avidity. The silo is 16 feet high. About 200 tons of ensilage was put into it.

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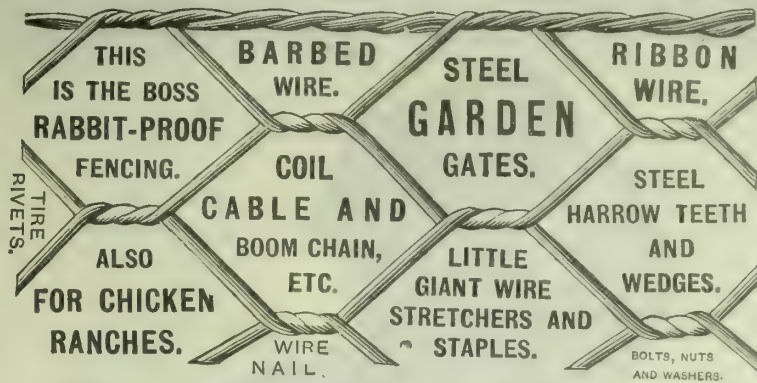
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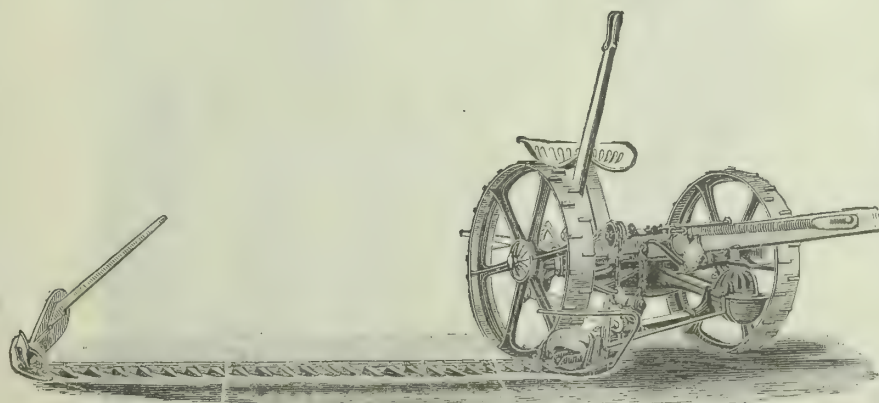
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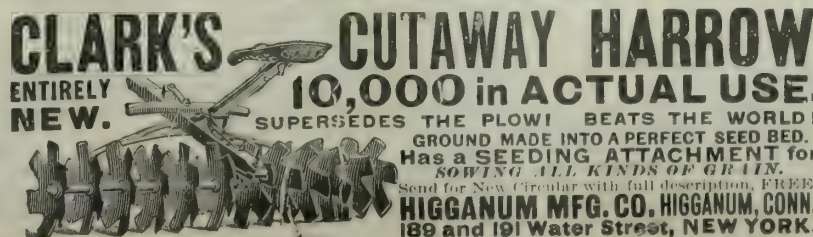
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Betsey Snow and the High-Hat Bill.

EDITORS PRESS:—From my earliest remembrance there have been many nice jokes and funny witticisms in the papers about woman's love for new bonnets. Bonnets and mothers-in-law are two fruitful items of ridicule in both political and religious papers. Our high-toned journalists have wisely seized upon this method of calling public attention to the fact that a woman's highest ambition is to wear a \$15 or \$20 bonnet, and that the mothers of the wives of young men are the greatest enemies of their daughters' husbands and children, and ought to be speedily exterminated.

The magnitude of the bonnet subject is just beginning to be appreciated. The wave of bonnet criticism has rolled from the Eastern States to our broad Pacific, and finds among our noble law-makers men with brains enough to give the matter their most serious attention.

While Fred was engrossed in reading legislative proceedings quietly to himself and I was absorbed in the wifely duty of cooking mush for the pigs' breakfasts, a happy smile overspread his fine features and he kindly asked me to listen and hear what our California Solons were doing for the good of my benighted sex. I thanked him tenderly for his thoughtfulness, ceased the artistic labor of stirring mush, and listened to his silvery tones as he read to me the "High-Hat bill" just introduced into the Assembly. Here it is as reported for the San Francisco "Monarch."

Down with the High Hats.

Mr. Damron, in the Assembly this afternoon, introduced a High-Hat bill, which was referred to the Judiciary Committee. It reads:

SECTION 1. It shall be unlawful for any spectator in any public place of amusement to wear a covering for the head which shall reach more than three inches above the crown of the head or more than three inches beyond the lateral circumference of the head; and any person wearing such a covering for the head shall be guilty of a misdemeanor, and shall be fined in a sum not less than \$5 nor more than \$10, or be imprisoned in the county jail not less than two days nor more than six days; provided, that this Act shall not apply to females more than thirty-five years of age.

As I am a female less than 35 years of age, and liable at any moment to become the happy possessor of a hat several inches higher than the law admits, I was very grateful to my protector for calling my attention to the bill.

As soon as the mush was well cooked, I took a string and measured the height of my present hat, and what was my horror to find it 3½ inches above the crown of my head! It was a very narrow escape, although I have not been to any place of amusement since my marriage, except to church a few times, and that will hardly come under the head of places of amusement in the bill, I suppose. Had I been so unfortunate as to have worn my hat to the theater after that bill received the Governor's signature, I do not see how I could have spared the time to go to jail a week, unless I had taken my mending along, and I never could have raised the five or ten dollars to pay my fine, as the hens are not laying much now, and the butter has to go for groceries.

I asked Fred why females at 35 were exempt from the penalty, and he says on account of their great age. At 35 females are no longer beautiful and attractive, and law-makers and lawyers would have no object in arresting them and having them brought to trial. A new age of chivalry is just dawning, he says, and when girls from 15 to 20 are arrested, there are scores of lawyers who would only be too glad to make a display of their gallantry by pleading their cause. Besides, it is hardly to be expected that women at the advanced age of 35 will go out much evenings, especially to places of amusement. Fred says if the bill becomes a law, two new offices will be created, a hat measurer and an age detector, which will give employment to a good many gentlemen who are too intellectual to engage in manual labor. Also if this law works well it will open the door to other much-needed legislation. The height of trimmings above the crown of the hat must be defined, and the color the same. The spirit of the law is liable to be defied by strong-minded women who might wear hats the legal height and width, and then pile the ribbons and feathers 12 or 14 inches above that. It grieves me to own that some females are so perverse that they think they know better than men what is proper for them to wear. When that beautiful law was passed in some of the Eastern cities, making it a misdemeanor for females to wear Mother Hubbard dresses on the street, women actually trampled the law under foot, and were forced to languish in jail for the offense. Torn from the bosom of their families, with no one left to smile on the hearthstone, get the meals, milk, wash, iron, etc., it would be supposed that such open defiance of law would never occur again. It may, however, unless females under 35 are on their guard.

I grieved Mr. Snow very much when I thoughtlessly asked if he did not think a law ought to be passed prohibiting males under 35 from going out of the theater between acts, leaving their female companions unprotected until they returned, smelling very strong of smoke and whisky, and when the play was over, and they attempted to walk home, be so weak that the females would be obliged to lead them or call a hack. He gazed at me a moment in silence, and then poured forth in unrestrained eloquence the following beautiful sentiment:

"My dear Mrs. Snow, do you for a moment suppose that the noble representatives of this magnificent State will so far degrade their high calling as to frame laws militating against their liberties? You do not understand the principles underlying our free institutions."

I was penitent for my rash words, and at-

tence, "our country cannot afford to do business on a narrow-gauge policy like that. It would not require more than 12 or 14 hours to draft that bill, and not more than a couple of days to discuss it. Sometimes members absent themselves during nearly the whole session, but their pay goes right on. That shows magna-

an honest, useful means of checking the tendency to strong-mindedness among young females. The only objectionable feature of the bill is, it brings female headgear into politics, and they may take advantage of such freedom and follow their headgear. Let us be humble and do right. BETSEY SNOW.

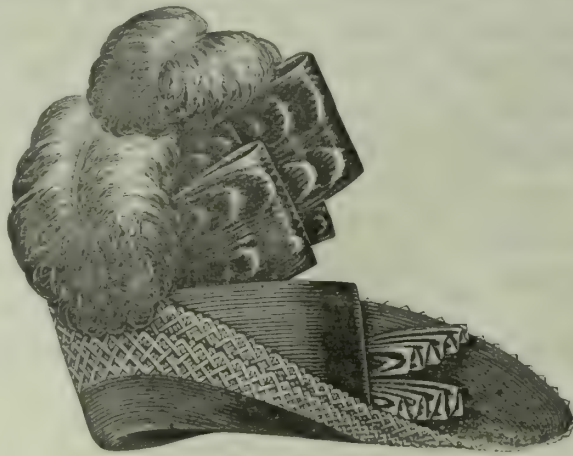


FIG. 1—LADIES' HAT.



FIG. 2—LADIES' COSTUME.

tempted to soothe his troubled spirit by saying I had no doubt the High-Hat bill was introduced for pastime—to while away an idle hour by representatives who were pining for their far-off firesides, and asked him if he did not think their wages ought to be docked to cover the time spent in such high-toned pastimes.

"Betsey," he replied, softened by my peni-

ninity of a high order." Waving his hand gracefully, an indication that his explanations were ended, I retired from his presence with my heart filled with gratitude for our public protectors as well as my own.

Dear female sisters under 35, lose not a moment in getting the hight and "lateral circumference" of your hats. The bill may prove a bit of legislative playfulness, but more likely

Fashion Notes.

Ladies' Hat

FIG. 1.—Black straw of fine, pliable quality forms this hat, which has a square crown and a broad brim that turns up at the back and for some distance at the sides in box-turban fashion, but flares in front. The edges are outlined with lace braid of a yellow tone that is brought out very effectively by the dark background. Loops of deep-rose ribbon are closely plaited and laid in fan-fashion on one side, peeping out from the uplifted brim. The decoration is on the top at the back and consists of three stiff loops of black moire ribbon placed well forward and two very full tips that show in their fluffiness a scale of pinks ranging from pale rose to very deep pink. This *chapeau* must be placed straight on the head, and to attain a becoming effect the hair must be arranged low. The shape is well suited to those who can wear becomingly an English walking-hat.

Ladies' Costume.

FIG. 2.—Serpent's-green French serge, dark-green velvet and Kursheedt's Standard Valenciennes lace flouncing are here combined. Upon the round skirt is a full drapery of flouncing, which hangs with the admired natural effect to the foot; and over this drapery at each side is a long, flat panel of serge that is slashed to the knee at the center, revealing the lace drapery prettily between the edges. The overdress has a pointed basque-front that is curved well at the sides, where large pocket-laps of velvet lie upon the hips, the fronts lapping narrowly in double-breasted style, with an invisible closing. The present fancy for contrasting effects in the fronts is charmingly exemplified by the arrangement of the lace and ribbon trimming. A row of lace edging is turned to the right from the closing edge, and from the left shoulder start four rows of velvet ribbon that are carried forward diagonally to the closing, where they are terminated under butterfly bows of velvet ribbon, a similar bow being placed on the front below the collar. A row of lace is turned down over the high standing collar, and lace edging of the same kind is rolled up on the sleeves in deep-cuff fashion over deeper pointed cuffs of velvet; the sleeves are sewed in with fullness across the shoulders. At the back, the overdress hangs in straight plaits, to the foot of the skirt, the plaits being produced by underfolded fullness below the waist line of the middle three seams.

Any preferred variety of lace may be used instead of that pictured, black lace combining fashionably with a number of colors. Silk, velvet, or the material may be used for the flounce-drapery instead of lace, and when the material is thus used a contrasting color will often be chosen. Bordered goods make up effectively in these costumes, the border being decoratively placed at the edge of the flounce-drapery. The mode is especially handsome for tailor made gowns, and buttons will prove a fashionable trimming, small ones being effective at the closing and on the sleeves, and large ones on the panels and pocket-laps. Much braiding will also be seen, and appique garnitures, passementerie, galloons, etc., will be stylishly used.

The rolling brim of the hat is smoothly faced with velvet, and the trimming consists of lace and watered ribbon.

About California Birds.

EDITORS PRESS:—I notice that when any one lacks information on rural subjects, and states that fact in your convenient columns, some kind friends are sure to supply the need in the next issue.

Who will give me descriptions of California birds, their habits, food, song, localities, etc.? As an Eastern person, I find things very different from at the old home, but the subject is a delightful one and will repay study. To the young especially I should think it would prove a valuable pastime. I chanced this morning to open a "Book of Birds," and these words caught my eye: "Besides great numbers of worms and grubs, the sparrows eat the seeds of many noxious plants, as dandelion and thistle. These valuable qualities are shared by most of our small birds, and all richly deserve protection." The careful farmer may, and does, demur to the last clause, recalling his losses in cherries and peaches.

Who will tell me how far north the mocking-bird breeds in California, and where thrive best the finches and thrushes? LUCY.

Feb. 25th.

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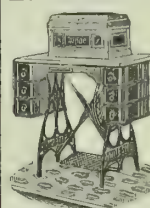
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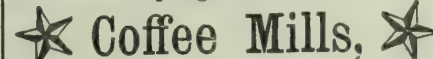
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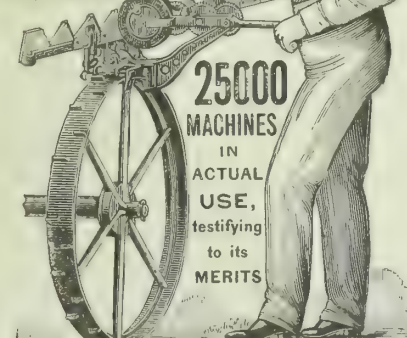
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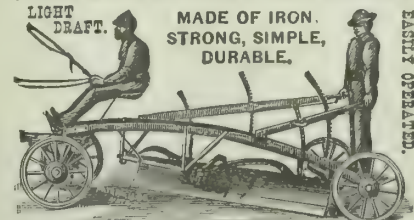


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Public Affairs.

Prison-Made Bags.

EDITORIAL PRESS:—The manufacture of bags at the State Prison, and their sale and distribution, seems to be a more difficult subject to the average politician than they expected. To a business man, however, it is not surprising that persons unfamiliar with legitimate mercantile operations should fail to make a success in a calling that requires years of experience to perfect.

No business man would expect, or hope, to control the price of bags in this market with a stock of two to three millions of bags, more or less, when the consumption runs up to forty millions annually. Nor would he deem it possible to distribute among the farmers, equally—or in just proportion—the make of the prison, so as to give all of the farmers a benefit or preference.

Such a proceeding is more in the nature of buncombe, if you know what that is, than legitimate business. It pleases the small farmer no doubt to think that his friend the politician is looking sharply after his interests, and the politician may honestly believe that such a thing can be done, and does not know himself what merchants learn by frequent sad experience, that the law of supply and demand will make the market price of merchandise as surely as water will overflow all obstacles in the course of time, and that you might as well expect to hold back the waters of the Sacramento with a two-foot dam as to control the bag market with less than a single month's supply of bags.

Nearly all farmers have their agents in this city to sell their produce and secure their supplies, and this is the practice, I believe, in most other counties. The fact that this practice exists generally is sufficient proof that it is the best for the farmer, as he is always at liberty to do his own business personally, if he desires. If he has an honest and level-headed merchant, who will be satisfied with the regular commission on the business, and not a speculator on his own account in a like product, the farmer will have all the advantages of the merchant's experience in his purchases and sales. It is more important to the farmer to know when to buy or sell than any difference in commissions, as between merchants, that he might save, and consequently, that merchant whose judgment in relation to the market is best—and most reliable—must be selected if the farmer desires to prosper. Good judgment is based on reliable information in relation to the markets of the world, as well as the local market, and but few farmers can be sufficiently posted, considering their location and lack of information in relation to the general markets, and therefore the most of them depend upon their factors attending to their purchases and sales.

Therefore, it would not be prudent for the farmer to buy bags directly from the prison agent upon his own judgment, because he might pay considerably more for them, even if he had a preference, than he would have to subsequently through a lower market, and which his factor, with a better knowledge, might anticipate for him.

Deliveries of bags to farmers for cash is about the only method that could be adopted by the prison agent in making sales. But how is the agent to know all the farmers in the State? How much land they cultivate, how much grain they raise, and what proportion of the prison output each one should have as his just proportion—say about one-thirteenth of what he used, basing the output at three millions and the consumption thirty nine millions. If the agent is not just in the distribution of the benefits, there will be trouble, of course, and it would require an annual census to inform the agent of the requirements of all the farmers for each current year, and it is no wonder that politicians have become bewildered at the formidable undertaking to them of selling bags. Besides, farmers are not all raising grain, and why should the grain farmer be benefited at the expense of the fruit or dairy farmer, who pays the tax necessary to provide for the prison cost over its income? Or why, in fact, should any one pay taxes to make cheap bags, more than for any other production? If it is admitted that the farmer should have a special benefit over any one else, it would be much more simple to give him a rebate on his taxes or a premium on his productions rather than by a preference in buying bags.

In case of high prices and a corner in bags, it would no doubt be in the interest of many for the prison authorities to allow an accumulation of stock, and at the opportune moment put the bags up at auction with due notice and in moderate-sized lots and sell to the highest bidder, and thereafter, during high prices, make weekly offerings until the market drops, and then withdraw from the market and accumulate stock again to meet another rise. In this way the farmer would be benefited largely by not having to pay extreme prices, and the remainder of the tax-payers would be benefited by a good profit on the whole product. The farmer's agent would be on hand to profit from such sales, and all would have an equal opportunity to buy when and as much as they chose, while those neglecting the opportunity would have no cause to complain.

It would be economy for the State to pay a moderate commission to an auctioneer to dis-

pose of all the prison product in this way rather than to take the chances of a political agent's methods of sale and distribution.

There are two very important questions in connection with prison management besides the matter of punishment for crime. Those are the health and lives of the prisoners and their education to some useful employment that will give them a chance to make an honest living after their term expires.

It is conceded pretty generally that an idle life in prison is harmful in every way and a greater terror to the prisoners themselves than almost any other punishment. Nor is it justice to the honest laborer outside to be compelled to support prisoners in idleness.

The making of bags is not one of those industries that will assist the prisoner materially when he is free, and therefore it is of doubtful utility to instruct any very large portion of them in bag-making, to the exclusion of other trades that would be of more value to them. Stone-cutters are more in demand and get higher wages than almost any other class of artisans, and there is no reason why they should be protected by the State in securing \$5 or \$6 daily, when the average common laborer gets only \$1 or \$2. The erection of stone buildings on this coast is practically prohibited by the high price of labor, and the employment of a large number of prisoners in this direction would be to their direct benefit as well as to the State at large by encouraging the use of stone for building purposes.

The manufacture of sash and doors has proven profitable and does not interfere seriously with manufacturers outside of the prison, and is a trade that will be valuable to the prisoner. So there should be no objections to continuing that business, and no doubt there are other uses for the labor of the prisoners that would assist materially in working their reformation by their learning a trade through which a good living may be obtained after they have left the prison, and thus adopting the principle of providing artisans in preference for those callings that are needed most in the State to equalize the price of labor.

R. G. SNEATH.
Jersey Farm, San Bruno.

The Foothills.

The following valuable article was written for the Marysville Appeal by Prof. E. W. Hilgard of the State University, who is the highest scientific agricultural authority on the Pacific Coast:

"In the olden times, the foothills were pointedly contradistinguished from the valley country, as a region fit only for the miner, and of little interest to any one after being mined out, being practically dependent upon the valley for its supply of food. Like the great American desert, this idea has been dispelled by the light of experience; and now the foothill country bids fair to outshine the valley lands, not in the quantity, but pre-eminently in the quality of its fruits. Not only is the 'abomination of desolation,' created by the hydraulic and placer mining, fast being hid under a renewed forest growth, but the orchard and the vineyard are spreading over the well-subsided, gold bearing red earth, and yielding their choicest products.

"It was early found that the small valleys within the foothills would produce fine crops of grain and vegetables when irrigated, and many a small 'patch' of this kind made the fortune of its possessor during the early times when salt chunk and beans were the staple food of the mining population. But the water was mostly pre-empted by the miners, and without irrigation it was thought useless to attempt cultivation. At first only a few venturesome spirits dared to act contrary to the prevailing popular conviction and plant trees on hillsides, where no water was available, and for a while their success attracted little attention, the more as some of their would-be imitators signally failed of success. But as mining became less and less profitable, the owners of the land thought it worth while to try what could be done, and the comparatively small holdings facilitated and encouraged improvement and experiment, at a time when the large ranches of the valleys were still held sacred to the sheep-herder and vaquero. That the experience thus acquired did not sooner become more generally known, was due to the nature of the country and the isolation of its inhabitants. But it is none the less cogent, and is now being reaffirmed every day.

"The contradictory beliefs still found even in the northern portion of the foothill belt, in relation to the necessity of irrigation for fruit trees and vines, are largely due to real differences in local conditions, which are not duly appreciated by the population generally. In a hilly region underlain by various rock formations there is necessarily much variation, not only in the quality but especially in the depth of the soil. Moreover, the nature and position of the underlying rocks influence in a very decisive manner the moisture conditions of the soils. Where as much as three feet of the red soil overlies the slate bedrock with edges upturned, trees and vines would have little occasion for irrigation after the first season, during which, of course, a more liberal supply of moisture would help them along faster. But when the vertically-bedded rock is once reached the roots insinuate themselves into its moist crevices to great depths, and henceforth have little use for water from above, beyond the natural supply.

But where the soil is shallow, or the rocks horizontally bedded or otherwise too hard for penetration by the roots, the case is different, and irrigation may be called for. The most commonly occurring rock next to the slate is granite; and this when solid is of course an impenetrable barrier. But in most cases it is 'rotten' to a considerable depth below the actual subsoil, and thus affords opportunity for the roots to seek both moisture and mineral food. While then there are many cases in which irrigation is a necessity in the foothill region, yet these cases are the exception rather than the rule, so far as trees and vines are concerned; and I should estimate that fully two-thirds of the foothill land susceptible of cultivation can be readily managed without irrigation, by those who have a proper conception of the use of plow and hoe as substitutes for a deficient rainfall. The actual area available for agriculture within the foothills is very much greater than most persons suppose; and fortunately for the development of the country, it is not convenient for large holdings managed on the plantation plan. It is and should be the special home of a thrifty population of intelligent small farmers, utilizing the valley for bread and forage crops, for their own supply, while using the hills for the fruits to which they are adapted and which they produce in such great perfection. While the deeper and richer uplands will be best utilized for the deciduous fruits and in the proper exposures for those of the citrus tribe, the olive, fig, carob, pistachio, cedar, and other plants of the Mediterranean border will probably occupy many places now deemed too poor or rocky for culture. The fruit-grower will have great need of watching his local climate and will find many surprises, such as, *e. g.*, the best success of the semi-tropical fruits, not on the lower slopes but at the elevations between 1000 and 2000 feet. These matters will receive special attention at the 'foothill experiment station' lately established in the center of the foothill belt in Amador county; but as a matter of fact, were all the local experience had, well gathered together and made generally available, the evidence would surprise even the old denizens of the region.

"In the future, the Sierra foothills will be a close parallel to the Italian Riviera, in the foothills of the maritime Alps, but with American progressiveness to 'energize' its industries."

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING FEB. 19, 1889.

- 397,976.—ROAD ENGINE—R. R. Dean, Sacramento, Cal.
 - 398,247.—PLANE—H. Fry, Eugene City, Oregon.
 - 397,920.—SHIRT WRISTBAND—W. E. Howell, Los Angeles, Cal.
 - 397,986.—DRESS FORM—W. A. Johnson, S. F.
 - 397,922.—HIP REIN SUPPORT—A. Kempkey, S. F.
 - 398,054.—WINDMILL—F. B. Kendall, Olympia, W. T.
 - 398,055.—PAVEMENT—J. E. Knoche, San Jose, Cal.
 - 397,990.—DENTAL ENGINE—Ira G. Leek, S. F.
 - 398,071.—POTATO PLANTER—J. E. Obison, Rockford, W. T.
 - 398,081.—POOL REGISTER—Edward R. Robbins, Sacramento, Cal.
 - 398,302.—SAW—W. T. Wilson, Marshfield, Ogn.
- NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

Pleasanton Stock Farm.

A RURAL reporter made a flying trip to the Pleasanton Stock Farm, owned by Mr. Salisbury. It is situated about one-half a mile from the town of Pleasanton and contains 100 acres of rich alluvial soil, with a fine one mile race-track on the side adjoining the town, with stables, corrals and paddocks on the south side of the track. It is used as a stock farm and training establishment.

Mr. Salisbury's stud contains several noted horses, among which are Director, Monroe Chief, Direct, the pacing mare Gold Leaf, with record of 2:15 as a three-year-old, and a string of ten selected standard trotting brood mares who have made records under 2:30, and a majority of which are under 2:21, besides weanlings, yearlings, two and three year old colts in training.

Mr. Sa'sbury's efficient trainer, Mr. Andy McDowell, gave an exhibition of speed with several of the flyers, with a goodly company of home fanciers in attendance. The gamy black stallion Direct, three years old, by Director, trotted a mile without a skip in 2:22, the last one-half in 1:09. Margarette S, two years and six months old, made a trial trip with the pacing mare Gold Leaf, and came under the wire in 2:25 with a skip.

A photo-facsimile of some of the leading animals of Pleasanton Stock Farm, with an extended description of the same, will appear in the RURAL this season.

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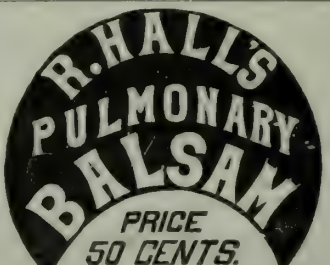
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NOTICE.

THE ANNUAL MEETING OF THE STOCKHOLDERS
of the Grangers' Business Association, for the elec-
tion of Directors to serve for the coming year will be
held at the office of the Association, 108 Davis street,
San Francisco, at ten o'clock A. M., on Wednesday, April
10, 1889. I. C. STEELE, President.
CHAS. WOOD, Secretary.



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On account of the death of F. A. BRIGGS, Manager of the Pacific Coast Branch of the Amesbury (Mass.) Carriage Factory, the whole stock of fine light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for sale at less than cost, to settle the estate.

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QUERIES AND REPLIES.

Interesting Observations on Rattleweed.

EDITORS PRESS:—I have been reading, with some degree of interest, the several articles which have appeared in the RURAL of late in regard to rattleweed, and in some of them the writers seem to be very skeptical as regards its true properties, and although it may be a hopeless task to undertake to convince them to the contrary, I for one can say without hesitation that I am positively certain as to its effects on stock. I have had more or less experience with it for the last 28 years, with sheep, cattle and horses, some of which I gave in the PRESS 8 or 10 years since; I still have plenty of it, but I have learned by experience how to manage it, and while we are at it I will give you my rules for pasturing where it abounds:

First, Do not turn stock in when the feed is poor.

Second, Do not leave them in after the feed begins to dry up in the spring.

Third, Watch them closely during the time they are in, and when you see an animal leaving the band and feeding around alone, take him out right away and you may save him if he is not too far gone, as when they begin to eat it they will eat nothing else and will leave the other stock to hunt for the weed. At first they fatten up, but a reaction soon sets in and then they soon show the effects of the weed.

I have a theory in regard to the way that stock get to eating it first, and that is this: The stock, in feeding among it while the feed is good, will eat the grass all around it and when the feed begins to get a little scarce or dry they will nibble the grass that has been left untouched in among the rattleweed, and in so doing will get a stalk of rattleweed now and then, and as it remains green nearly all the year they soon get to eating it and will eat nothing else. I have not had an animal hurt for several years, but it is because, as I have said before, I have found out how to manage it.

I would also like to state that the water in my pasture is pure spring water and plenty of it, as I see some think water the cause. Others say they are overworked, starved, beat around and in fact never had any sense in the first place and were natural fools out and out. Now this in my opinion is all a mistake. Of course there may be differences in horses and they may not all act just the same, but this much I will say, that if you want to make a horse, cow or sheep crazy give them plenty of rattleweed.

I will now give you one case that came under my notice. I turned my colts in a pasture adjoining mine in which there was one patch of rattleweed. The feed was not very good generally, but along the gulches and in places where it was sheltered it was very fair. I did not dream that they would trouble the weed, and as I was busy I did not pay much attention to them. Now there was among the colts an old American mare that had crossed the plains; she was a family nag, any one could drive her and she would work any time and anywhere, and I thought she had plenty of good horse sense. Well, I went over one day and there was the old mare and a two-year-old colt up on that hill busy at work eating the rattleweed. They had even pawed up the ground and were trying to eat up the roots, and they were good and crazy and no mistake. The other colts were all right. I then took the colt and old mare out and put the colt up and fed him awhile and then I sent him away to pasture where there was no weed, and in the fall he seemed to have recovered from the effects. I then brought him home and turned him out among the other horses in the stubble. In this stubble-field there was a hill and on it some rattleweed. I did not think he would leave good feed and the rest of the stock, so I paid no attention to him. I then went away to work and did not come home for two weeks, and found my colt up on the hill busy at the rattleweed and as crazy as a bedbug. He was a total wreck, he could not walk straight nor go downhill without turning round and round. Of course I saw he was done for and let him die, which he did in a short time. I have other cases that are equally convincing, but think I will not burden you with too much at once.

Suisun, Cal.

A. A. DICKIE.

"A ROSE BY ANY OTHER NAME."—The Pasadena Star says: A citizen who happened to be riding in a street-car yesterday with a couple of strangers, overheard one of them gravely remark as he pointed out a blue gum beside the road: "There's one of those erysipelas trees!"

NEW CARRIAGE REPOSITORY IN STOCKTON.—The H. C. Shaw Plow Co. of Stockton have opened their new carriage repository, 40x150 feet, and will continue to carry an increased line of all kinds and grades of buggies, carriages and farm wagons.

EXCELLENT lime is made at San Jacinto. The company there is now sending out 100 barrels a week and expects to treble its output before next summer.

TO SUBSCRIBERS.—Members of the P. of H. now receiving the regular editions of the RURAL PRESS are advised to try our Grange editions instead for awhile. The cost is the same for each edition. We will transfer names from either to the other on receiving a written request therefor.

Engraving as an Art.

A series of most interesting and instructive lectures and conversations are now being given by Mrs. C. D. Adsit, at Union Square hall, in this city. The fifth of the course was given on Thursday afternoon, the 7th instant, the special subject being "Mezzotints and Stipple." The series consists of 12 lectures, and was preceded by a free preliminary lecture.

Conversations on the subjects treated in the several lectures are given on the days succeeding the lecture at the parlors of the Woman's Educational Union, at 325½ Geary street, at which conversations many of the choicest works of the old masters are shown, so as to be freely examined and studied and discussed by all.

The series of lectures is divided into topics and in order as follows: 1. The Engraver's Art. 2. Wood Engraving. 3. Line Engraving. 4. The World's Great Engravers and their Masterpieces. 5. Mezzotints and Stipple. 6. States of Plates, or What a Proof is, and What it is Not. 7. Etching—its Etymology and Technique. 8. Practical Illustration—a plate etched before the audience. 9. Comparison of the Etched Line with the Engraved Line. 10. Conventionality of Art—Hader and his Works. 11. What Good Drawing is and What it is Not. 12. Qualities that Make the Great Etcher.

From this division of subjects, it will be seen that the art of engraving is thoroughly considered in its technique and bearings. Each lecture is profusely illustrated by numerous engravings from the great masters in the special line which forms the topic under consideration for the time. This collection of engravings in the possession of Mrs. Adsit is of the very highest class and valued at over \$50,000.

The lectures increase in interest as they proceed, and the attendants become more and more interested with each succeeding topic. The public of this city have never before had such an opportunity to become acquainted with this interesting branch of art. Mrs. Adsit has lectured in most of the principal cities of the Union, and previous to visiting this city has given her course in San Jose and before the Ebell Society of Oakland. Her knowledge of the subject is perfect and her expositions simple, clear and full. She has in her possession examples of nearly all the great masterpieces of the engraver's art, from Rembrandt to those of the latest date. Some of them are of high value. One piece, entitled "Ecce Homo," Rembrandt's great masterpiece—about 12 by 16 inches—is valued at \$1000.

It is by means of this valuable collection—the most extensive and costly ever brought together in the United States—that she is enabled to so fully and perfectly illustrate her admirable series of lectures.

Mrs. Adsit, we believe, makes no especial claim as an artist, but is a most thorough and intelligent art critic. She has made the engraver's art a study for many years, and has been aided in her studies by having free access to most of the celebrated art-galleries and art collections of Europe, both public and private, and has also met personally many of the leading artists and art connoisseurs now living. Her criticisms and opinions have been received with much favor in leading journals of both Europe and America. She is extremely happy and familiar in imparting instruction and always infuses her own enthusiasm into the minds of her audiences. She is particularly gifted in this connection, while her methods are quite original. She puts herself in perfect rapport with her hearers, and makes it a practice to hear and answer questions in a familiar manner after each lecture. Her conversations the day following her lectures are particularly enjoyable and instructive.

The attendance upon her present course is small, but especially select. It is to be hoped that she will be requested to repeat her course in this city, and that her lectures will be more largely attended than thus far. We are pleased, however, to state that the interest in her work is increasing, as is evinced by the new faces which are beginning to appear as the same progressors. The next lecture will complete one-half of the course, and half course tickets will be issued after that time for \$2.50 for the remainder of the series—the whole series being \$5. As this half course will take up the full subject of etching, it will be found both very instructive and interesting, as may be seen from the program as given above.

The ladies of the Woman's Educational and Industrial Union have done a good work in securing this valuable contribution to art study in this city, and it is to be most sincerely hoped that the Art Association or Century Club will take measures to secure a repetition of the same in aid of the useful and growing interest of art study in San Francisco.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

SUGAR BEETS.—Mr. E. Sa'z of Decoto leased five acres of land near this place at a rental of one-third the crop. The yield was 27 tons per acre, which at \$4 per ton gave \$36 per acre rental.

State Horticultural Society.

S. J. Stabler presided at the meeting of the State Horticultural Society on March 1st, until the arrival of President Hilgard. C. S. Aitken of Berkeley and Wm. Cluff and B. N. Rowley of San Francisco were elected members of the association. Samples of apples from James Waters of Watsonville, with a letter requesting the society to determine their variety, were referred to a committee consisting of James Shinn, C. W. Reed and Leonard Coates, who declined to make any positive assertion as to variety.

The names of George F. Weeks of San Francisco and C. A. Wetmore and John H. Wheeler of Livermore were presented for membership, to be voted upon at the next meeting.

C. A. Wetmore presented his views on Senate bill 611, now pending, which contemplates the abolishing of all the agricultural commissions and establishing in their place a Department of Agriculture at Sacramento. Mr. Wetmore strongly opposed the proposition, which was also pronounced against by Prof. Hilgard, Judge Stabler, Senator Buck, Eilbert Tompkins and others.

On motion of B. N. Rowley, a committee was appointed, consisting of Messrs. Rowley, Buck, Tompkins, Stabler and Bancroft, to draft a resolution, which was adopted, as follows:

WHEREAS, Senate bill No. 611, an Act to establish a Department of Agriculture, is opposed to the best interests of the horticulturists of this State; therefore, be it

Resolved, That the California State Horticultural Society, at its regular meeting, held to-day, strongly urges the Legislature not to pass said bill, as it will overthrow much valuable work, and it is entirely unsupported by those who have at heart the best interests of our horticultural, viticultural and agricultural industries.

It was decided to telegraph copies of the resolution to the President of the Senate, Stephen M. White, Senator De Long, and to Secretary Lelong of the Horticultural Society, now in Sacramento.

John T. Cutting, by request, read a paper upon the marketing of dried fruits, which was heard with much interest, and to which we will refer at length at another time.

Remarks on the shipment of fruit were made by Senator Buck, Dr. Handy, James Shinn, J. S. Robertson of Minneapolis and others.

W. H. Aiken, chairman of the Committee on Railroad Rates, said that he was hardly able to report yet, but thought he would be able to do so about April 1st. The railroad authorities were not able to give any definite information, but he was not sanguine that any material reduction would be secured.

The Olive.

On motion of A. L. Bancroft the subject of the olive was chosen for the meeting of March 25th, and B. M. Lelong was invited to open the discussion. The line of discussion to be followed at the meeting will be as follows:

Upon how cheap land can the olive be successfully grown?

What kind of land is the most economical—dry or moist—hills or flat land—rocky or loam?

Distances to plant trees; advisability of putting out vines between the trees; amount of cultivation required, and how to prune the trees.

The climate best adapted to the olive; the pests which interfere with it. Do hares, squirrels and insects prey upon it?

The age at which the trees bear sufficiently to pay the expenses of cultivation. The vigorous bearing life of the tree.

The uses made of the fruit; how to gather and handle it.

Question-Box.

The following amendment to the by-laws, proposed by Mr. Bancroft, will come up for action at the next meeting:

That there be added to the order of business, to come immediately after the stated discussion, and before the subject for the following meeting is decided upon, "Questions and Answers," which shall consist of questions and requests, either written or verbal, for information by members for responses by other members of the society, and that this item of business be announced regularly as it is needed in its order.

Mr. James Shinn exhibited a sample of very handsome Navel oranges grown on his place near Niles, in Alameda county. On motion, the society adjourned.

PUMPS AND HAYING TOOLS.—F. E. Myers & Bro. of Ashland, Ohio, whose advertisement appears on another page, sends us a descriptive catalogue and price list of the goods which they are turning out at their immense factory—said to be the largest and most thoroughly equipped in the country for the exclusive production of double-acting force pumps, haying tools and supplies. Beginning on a small scale in 1870, their plant now embraces half a dozen brick buildings—brass and iron foundries, machine-shops, etc.—which, with the machinery they contain and the ground they occupy, represent a large invested capital. The repair lists and alphabetical index are noticeable features of this clearly illustrated and interesting catalogue, which those in need of such goods will do well to apply for by mail.

A GOOD SUBSCRIBER.—O. H. Ferris of Tustin City lately sent us four boxes of Navel oranges—big, fair and luscious—which found their way into several households we wot of, and every one who has had the pleasure of putting them to the final test agrees that he who supplies us with such fine fruit is a good subscriber.

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To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, to those who pay fully one year in advance of date, IF REQUESTED the following articles (while this notice continues), at the very greatly reduced figures named at the right:

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- 14.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.).....05
- 15.—European Vines Described, 63 pages.....05
- 19.—Webster's Dictionary, 834 pages, with 1500 illustrations; very handy and reliable.....50
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- 24.—Mr. Bickerdyke's Life with the Army; patriotic and ably written; 166 pp., cloth, \$1.00.....50
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- 26.—How to Tell the Age of a Horse.....05
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- 33.—The Taxidermist's Manual; illustrated, 64 pp.....10
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While it does not take the place of an ordinary map, it illustrates, comparatively, the elevations and depressions of the principal mountains, valleys, rivers, lakes, ocean and bay-shores of the Pacific States and Territories, and makes a permanently useful, handsome and desirable picture for either library, office or home.

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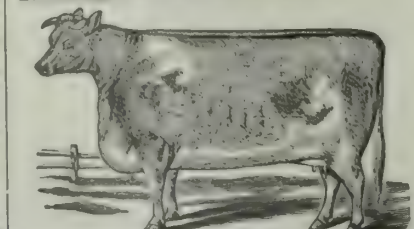
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Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with record a better than 2:30, and the dam of 5 with record from 2:15 to 2:25.

First dam Abess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp Emancipation. Third dam by Bertrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbridge, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:15 to 2:25.

First dam Alia, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchy, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoll, a son of Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medo (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Ryndyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinket, 2:24, and Tamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maid S, 2:08, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

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2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:20), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

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Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

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First dam by Sportman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

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First dam Daisy by Luck's All 188.

Second dam by Providence 24; he by Master George 203, by King George 160; he by King George IV 163.

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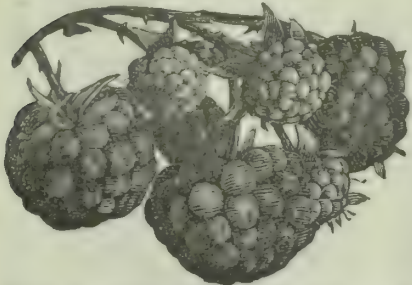
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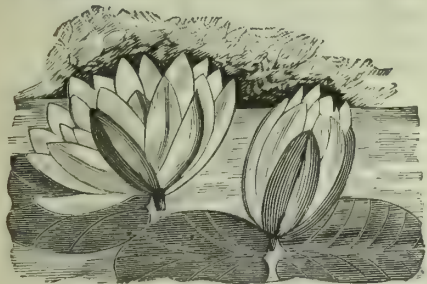
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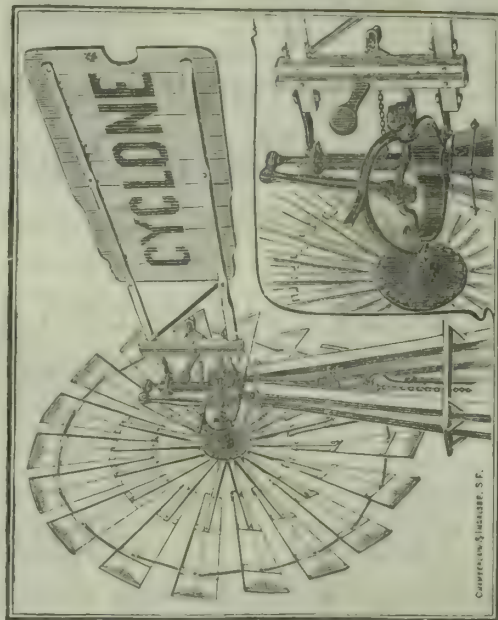
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L. U. SHIPPEE, Pres. Stockton Savings and Loan Society.

STOCKTON, CAL., Feb. 14, 1889.

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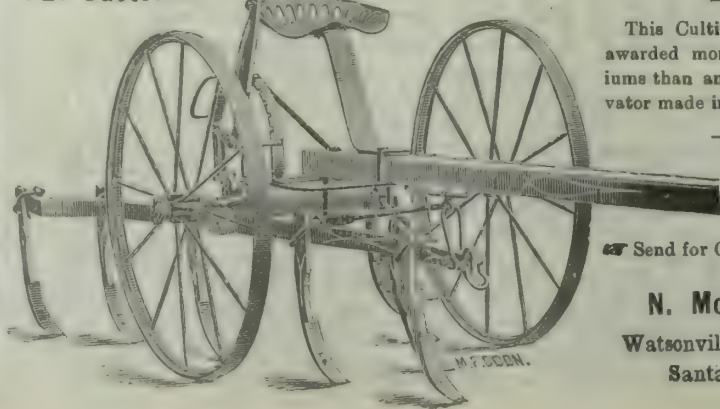
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TWENTY-FOUR PAGE EDITION.

Vol. XXXVII.—No. 11.

SAN FRANCISCO, SATURDAY, MARCH 16, 1889.

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A Standard-Bred Stallion.

We adorn our opening page this week with an attractive sketch introducing a portrait of the standard-bred stallion Campaign, the property of L. U. Shippee and W. H. Parker of

Stockton, Cal. The position of Electioneer, well termed the "favorite son of Palo Alto," is so well defined that the name speaks volumes to horsemen. His roll of honor with 11 of his get with records from 2:20 down to 2:16, and 28

recognized, and is in fact the basis of pure breeding. It is, however, too often that one is apt to be dazzled by the glory of a sire and forget the element of uncertainty of transmission which may be due to unfixed type in the dam. We have heard an old horseman say

the descent of Campaign on the side of his dam, which is, in brief, as follows: First dam Lily B, by Homer, 1235; second dam Maggie Lee, by Blackwood, 74; third dam by Alexander's Abdallah, 15.

The descent of Campaign from Homer on the



STANDARD-BRED STALLION CAMPAIGN OWNED BY L. U. SHIPPEE AND W. H. PARKER, STOCKTON, CAL.

Stockton. Could the artist have introduced the element of color into his portraiture, it would be seen that Campaign is a beautiful dark bay with black points and right hind foot white. He stands 16 feet high and weighs 1125 pounds, and was foaled in 1886.

When it is said that Campaign was sired by Electioneer it is hardly necessary to add any-

others in the 2:30 list, is too well known to need more than reference. The value of Campaign's pedigree on the side of his dam is possibly not so well known and will warrant comment.

The value of concentrating quality in an animal by selection of both dam and sire with similar ruling aims is, of course, generally

that the chances of securing superiority by selecting a progenitor according to his sire alone estimated as one to ten, and the chances when both sire and dam are alike bred in a desired line, as one to two. Whether these proportions are accurate or not cannot be said, but the truth is in that direction. For this reason we deem it important to speak especially of

side of his dam makes pertinent the following appreciative mention of Homer, which we find in Wilkes' *Spirit of the Times*:

Homer is a black son of Mambrino Patchen, foaled 1872, standing 15 2½ hands high, and weighing 1200 lbs. Homer has all the finish and symmetry for which his family are noted, and with it a certain stoutness of build that

(Continued on page 257.)

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Calaveras County Again.

EDITORS PRESS:—In the issue of March 21 of the RURAL, E. H. Schaeffle, writing from Murphys, Calaveras county, claims to have discovered errors of fact in my letter to the RURAL of Feb. 9th, but what these erroneous statements are, he has wholly failed to point out. He says that in future he will try to show the reader "that there are several systems of irrigating ditches in the county, and that a visit to those sections will prove that there is a large area of land capable of being irrigated."

If by this he intends to assert that I have denied the existence of irrigating ditches, I will call the attention of the reader to a quotation from the third paragraph of my article where just the contrary is stated: "In some districts irrigating ditches have caused the blossoming orchards to spread far and wide over the sunny slopes, and in the rich meadow-lands, as at Knight's Ferry, Valleito, Angels and Murphys." How this could be construed into a denial of the existence of irrigating ditches I have failed to discover.

Neither have I anywhere said that Calaveras has not much excellent land capable of irrigation; but, on the other hand, have repeatedly referred to the choice spots "favored of nature for the culture of the peach and grape." In the third paragraph, already alluded to, I have called the natural advantages of Calaveras nearly equal to those of Tuolumne, which is conceded to be magnificently adapted to the culture of fruit. If allusions to the "fertile uplands, the rich hillsides that invite the vine and berry, the alluvial vales, and the sheltered valleys," can be interpreted to mean that there are no irrigable lands in Calaveras, then I admit that I am guilty of mistaking facts.

Nor can I understand how the statement that "this region is almost unequalled for fruit culture" can be reconciled with the idea that it is not suitable for fruit, although Mr. Schaeffle informs the readers of the RURAL that if there are any doubting Thomases (who have presumably understood me to assert that there are no advantages for fruit-raising) he will "show them lands suitable for fruit."

Since these are the only facts mentioned in Mr. Schaeffle's article, which appear to him to be faulty, and since he has not shown me wherein they are so, or in what particular they differ from those which he considers to be true, I feel that he has dealt unfairly with me in publicly accusing me of errors which he does not define.

However, I believe that Mr. Schaeffle after all has only obtained a wrong impression from my article because of the comparison of Calaveras with Tuolumne, which is really far ahead of the former county, both in its production of fruit and in its facilities for irrigation. This can be abundantly proved by reference to the horticultural reports of these districts, and also readily seen, if one will but consider the canneries and the large fruit-drying and cider-making establishments in Tuolumne, of which there are only a few in Calaveras. But I did not draw the comparison for the sake of placing Calaveras in an unfavorable light. On the contrary, I tried to show that her natural advantages were quite as good as those of Tuolumne, so that her people might perhaps more earnestly strive for her development. Because I stated that the mining ditches had often "chanced to flow" through rugged ways (which to my own personal knowledge is entirely true), I did not deny the existence of better paths, but only felt this fact to be an excuse for the position of Calaveras when compared with Tuolumne, because the objects of the people of Calaveras in constructing canals have not often been to raise fruit. This is officially reported: "Comparatively little of the water supply (of Calaveras) is used for purposes of irrigation consequent upon the demand for mining purposes."

In conclusion, I will say that all the features of Calaveras and Tuolumne—ditches and fertile lands included—are more familiar to me than any other portion of the globe. In those well-loved hills I have spent by far the greater portion of my life, and besides have made yearly visits to nearly every little town within their borders. During both 1887 and 1888 I made extended tours over both counties with the sole object of gathering material for the Eastern and San Francisco press, my reports to the latter including letters to the RURAL PRESS, the Chronicle and the Call. I have written all my communications from personal knowledge, and have tried to be as accurate and just as possible in every statement, for which heretofore I have always been rewarded by numerous letters from the people of Calaveras and Tuolumne commending my conscientious efforts to aid in their welfare and advancement.

MAY BLOSSOM DAVIS.

San Francisco, March 4, 1889.

RAILROAD CROSSINGS.—According to the report of a Massachusetts legislative committee, all the grade crossings of railroads in that State must be abolished. There are 2902 intersections of highways and railroads, and to carry out the purposes of the law would necessitate the expenditure of \$48,000,000.

THE APIARY.

Moths, Hives and Hybridization.

EDITORS PRESS:—The mothworm is regarded as the worst enemy of the Californian bee-keeper. Undoubtedly this is true where allowed to have its own way. But to become a successful bee-keeper it is necessary to use cleanliness and give your stock a certain amount of attention, and when neglected in these two respects, you will soon find something going wrong. I have heard of cases where apiarists have given up bee-keeping because the mothworm destroyed their bees. Such cases are due either to carelessness or ignorance. Only lately I bought an apiary of black bees, and one-third of the hives were so badly infested with mothworms that it was impossible to remove the honey-boards without breaking them; they were so tightly glued down by worms, and I was obliged to tear out the frames and combs and burn them up. The owner had hived his swarms into hives that were infested with the mothworms, either through carelessness or under the impression that the bees would clean them out.

Whenever your bees die in a hive or desert it, close up the hive at once, or carry it indoors out of the way of moths and robbers. There is no danger from the worms in the fall, winter or spring, as they cannot develop unless they have a summer temperature, but they will live a long time in a dormant state, and if allowed to stay in the cracks or crevices in the hives, will commence their work of destruction when the temperature favors their development. If you keep only Italians or even all hybrids, you may go over a hundred colonies and not find a trace of the mothworm. At the very low price at which Italian queens are now to be purchased, it seems we shall soon forget that the bee-moth ever existed, and the best way to prove the truth of this assertion is to take an infested comb and hang it in the center of a full hive of Italians. You will find all the bees and worms carried out at the entrance and the comb cleaned up in a couple of hours or so.

The Best Hive.

In reply to Mr. Phelps' letter under the above heading in your last issue, I would recommend the hive known as the Langstroth. It is the hive most generally used in California, and is the kind we use. It is easy to make, easily handled and is not patented. We find it equally suitable for comb or extracted honey and for queen-rearing, etc. The frames are easily handled, being of a convenient size. If Mr. Phelps wishes to adopt this hive, I have no doubt he will be able to get a pattern from some bee-keeper in his locality; if not, I shall be glad to send him drawings and a description of the hive by mail.

Whatever kind of hive is decided upon, he should have them all to take the same-sized frame, so as to be able to change a frame from any one hive to any other in the same apiary. When his hives are made he should get comb foundation and fit it into the frames which will insure straight combs (the main secret of success in modern bee-keeping). I shall give instructions to beginners from time to time in the columns of the RURAL that will be of interest to Mr. Phelps, and shall be glad to give any further information, if desired.

Bees and Fruit.

In addition to the very able letter written by your correspondent, W., in your last issue, regarding the fertilization of fruit blossoms by bees, we have in the same issue a letter signed J. R. Springer, Woodland, which is a proof of the efficacy of cross-fertilization undoubtedly performed by the agency of bees. Mr. Springer (speaking of almond trees) says: "I will say that the Standard and Languedoc, planted alternately, will yield double what they will if each is planted by itself. I saw that at Mr. W. W. Smith's at Vacaville last June. He had 12 trees in a row—6 Languedoc and 6 Standard—and where the two varieties were the nearest the trees were the heaviest loaded, and the farther away the lighter." The reason for the above is obvious: the bees working on the trees nearest together would naturally cross-fertilize more of their blossoms than those at a distance, hence the desirability of planting the two kinds together.

Many kinds of fruit depend entirely on the agency of bees in fertilizing the flowers to enable them to produce fruit at all. It is a well-known fact in the Eastern States that unless they have a few hours of sunshine when early cherries are in bloom they get no fruit at all. The reason is plain; when the cold wind and rainstorms prevail the bees are unable to get out, and consequently the blossoms remain unfertilized.

W. STYAN.

San Mateo, Cal.

Advice to Bee-Keepers.

In their annual review of the California honey business, Schacht, Lemcke & Steiner of this city advise apiarists as follows:

As to quality, the last year's crop was choice, but unfortunately much of the "extracted" was packed in unsuitable cans and cases that had been used for coal oil, etc., which caused many complaints and some losses to shippers and

dealers. Apiarists should be more careful and use nothing but new cans and cases, and the nicer and stronger they are the better. The cans and cases should also be strong and good, especially those that are shipped long distances; then there would not be so many complaints nor so much loss from breakage and leakage, etc.

All comb honey, or at least the greater part, should be in one-pound sections. It sells far better and is much more attractive in other respects than when in larger packages.

It will be found to the interest of the producers of honey to attend to this; it of course will cost them something to change the hives and frames, but it will pay them well for doing so in the end. California comb honey is equal, and even superior, to Eastern in all respects, but it does not command as high figures because it is not put up with as much care and in as attractive style. Two-pound frames are too large and are not in favor in the Eastern markets. Our apiarists should imitate and not be excelled by their Eastern brethren. If they attend to this as they should this season, they will have no cause to regret the expense.

A Description of a Hive.

EDITORS PRESS:—At the request of Mr. Phelps, we would recommend the Simplicity hive, it being used largely by many of the leading apiculturists, is not patented and is adapted to the warm climate of California. It is of the following dimensions and built in two sections of equal size, viz.: (inside) length 18 inches; wide, 14½; deep, 9½ inches. Frames hang lengthwise from a rabbet ¾ inches across the top of the ends. If you wish to avoid killing bees, drop the rabbet another one-eighth and nail a strip of zinc or heavy tin so that there will be one-eighth space under the ends of the frames and the bottom of the rabbet. The bottom of the hive should project two inches in front for an alighting-board; the top should be watertight and the hive, when set in position, to have an incline of 1 inch toward the front or entrance, which is an opening ¾ by 3 inches in the end at the bottom. The frames are of inch stuff by ¾; top 19 inches, end 8 inches, bottom 17½ inches over all. The end pieces fit between the top and bottom. There are 9 frames in the brood-nest or bottom section; 38 above in top box. The top and bottom are exact duplicates, as we use them for extracted honey; for comb many prefer a shallow top for one tier of sections, say five inches deep. For lumber use inch pine dressed on one side at least, which should be inside.

Place the hives on a stand and shade them.

The request for other information seems intricate. We would recommend the purchase of some standard work of recent issue. W. Bakersfield, Kern Co., Cal.

A Queer Hive.

EDITORS PRESS:—A very novel and curious bee-hive was discovered recently at Dutch Corners. It consisted of a straw-burning engine, which a swarm of bees had taken possession of as their home. Every attempt to dislodge them had failed, and horses and people were often stung by them. The engine was stored in an open shed facing the road; hence it was very desirable to get rid of the bees.

The proprietor of the Dutch Corners' hotel offered me the bees if I would take them. Accordingly I went at it, and in a few minutes had them safely hived in a box. I moved them 80 miles and set them up. On being liberated they immediately went to work.

There were in the engine about 14 pounds of honey of a very fine flavor and nearly pure white, made from alfalfa, of which there were large fields near by. The means of capturing them was simply smoke and water. After capture I found the queen and clipped her wings, and all trouble was over.

Now we will see what they will do up the San Joaquin valley, under the Kings river and San Joaquin canal.

E. L. DICKINSON.

Central Point, Merced Co., Cal.

POULTRY YARD.

Hints from the Cackler.

Green food is one of the essentials that must be present to obtain a large number of eggs. The climate of California is such that no breeder is excusable for denying his fowls a regular supply. A grass range is good, but we think that taking the year round it is better and more economical to raise the feed and give it the fowls regularly. During the winter or rainy season all kinds of grains will grow freely, and during the summer or dry season alfalfa is perhaps the best plant to raise. It is eaten in preference to grass, and is not surpassed for rabbit feed. Apricot leaves are highly relished, and are easily gathered by those who have the trees.

Because ducks love water it does not follow that they thrive best in wet situations. To induce early laying, ducks should have a warm, dry shelter during the night, and should not be allowed to go into the water at all. We formerly held the opinion that ducks would prove

healthier and produce better fertilized eggs and stronger young if allowed their liberty on running water, but later experience has proven the contrary by some practical duck-raisers. The fancy for fine ducks is not receiving the attention that it should in a country so well adapted to their culture as California. Their wants are so simple, and they are so hardy, grow so rapidly, and sell so readily, that we wonder why more do not enter the fancy.

The original Douglass mixture was made by dissolving eight ounces of sulphate of iron (copperas) in one gallon of water, and add one-half fluid ounce of sulphuric acid. Mr. Douglass, the originator, now prefers a mixture which he makes as follows: Two ounces sulphate of iron, and one-half ounce diluted sulphuric acid; stir with a stick; add hot water until dissolved; when cold, add enough water to make a gallon; keep in an earthenware or glass vessel. A teaspoonful to a quart of water makes a strong tonic.

Keep a pedigree-book; it is always useful, and in breeding for color is indispensable, and but little trouble to keep if once started.

I have experimented with eggs kept for various periods, and found that eggs will hatch well after being kept for a considerable time if they are kept at an even temperature, or as near to that as may be convenient, and turned every day or two. On one occasion I had a favorite hen from which I wished to procure a setting of eggs. I put her with a black-red stag, also a favorite. The hen only laid every other day, so that it took nearly four weeks to get the 13 eggs. By the time I could procure a hen to sit on them, the first laid egg of the lot was 40 days old. Every egg of the 13 hatched, and I succeeded in raising all—nine stags and four pullets. I kept the eggs in a cigar-box on the top of a cupboard in the kitchen; there was a fire in the kitchen daily, but the doors and windows were open most of the time, as it was during warm weather in May and June. When I put a fresh egg into the box I turned all the rest; this, of course, does not prove that all eggs will hatch if kept for a long time, but it is one of many instances in which I have had eggs hatch that were thought to be too stale to produce life. I believe that with a little care eggs may be kept at least two months at any season of the year and hatch, and if they do not hatch they were never fertile.—L. E. Mattoon.

THE IRRIGATOR.

A Proposed General Irrigation System.

EDITORS PRESS:—The irrigation problem is one of immense magnitude. Since the earliest stage of human existence it has attracted the attention of its greatest minds. History informs us of the heroic deeds of the Spartans; of the rise, prosperity and fall of Rome and other mighty nationalities. We also read of the heroic deeds of our own ancestors in establishing a firm basis for a mighty nation. It has prospered and grown until it has taken its place among the mighty nations of the earth, and if we as sons and daughters of noble sires who bequeathed to us this noble heritage will but follow their teachings and examples, ever bearing in mind that right, justice and equity are mightier than the sword, our nation will continue to grow and increase in greatness.

One of the imperative essentials to our prosperity and happiness is to make the very best obtainable use of our natural surroundings. Agriculture is the foundation—the "chief corner-stone" of humanity. It furnishes the only means of life to all, both high and low. The importance of agriculture, as the human family increases in numbers, is being brought more directly to the notice of thinking minds, and the necessities of the surroundings are made more apparent. The demands of the tillers of the soil are beginning to attract some of the attention they deserve.

Congress has recently appropriated the sum of \$100,000 to investigate and report upon the advisability of establishing a general system of "Water Storage" throughout the United States.

It is reasonable to expect that our State will be included in the investigation. The foothills of California are entitled to a share in the surveys that may be made. The natural formation of the foothills and the higher mountains of the Sierra Nevada system, with its immense lakes and living streams of pure, sparkling water, together with the immense area of arid plains lying on the verge of the great valleys of the Sacramento and the San Joaquin, certainly will attract the attention of the commission in charge of the investigation. From this source, however, we cannot expect relief for some years to come.

What the farmers and miners in this region are mostly in need of is a bountiful supply of water, and we want it now both for irrigation and for manufacturing purposes. More than enough water and snow falls during the rainy season to supply all necessary wants. Storage reservoirs can be constructed in favorable localities, at a comparatively small cost, sufficient for present needs.

The following proposition is hereby presented with the firm conviction that it is a step in the right direction. By an Act of the Legislature, authorize the State to issue bonds to the amount of \$1,000,000 at five per cent or less to run for ten years, thereby creating a fund

to loan to the land-owner in sums ranging from \$500 to \$5000 to be employed in building embankments in favorable localities, and upon his own premises. When completed, the State to establish an annual rate for the use of the water sufficient to pay the amount loaned, with interest inside of ten years. The Board of Supervisors in each county to be authorized to order surveys upon the filing of bonds by the applicant sufficient to cover the necessary expense; the same board to have general supervision of all storage works.

Under a system of this kind, many small farmers would be greatly benefited, the value of the land and its productive capacity greatly enlarged. Much land that is now worthless would be brought into profitable cultivation. Happy homes would soon take the place of arid wastes, and cause them to "bloom as the rose." Our hills and vales would be inhabited by a prosperous people. Schoolhouses and churches would take the place of crossroad saloons and half-way "deadfalls," and every man and his wife could sit in the shade of their own vine and fig tree.

An Act of this character could be framed so as to prevent the possibility of loss to the State, and without an elaborate system would assist the small farmer and fruit-raiser, and in the end a mutual benefit would be secured.

S. C. WHEELER

HORTICULTURE.

The Muir Peach.

EDITORS PRESS:—In your issue of February 2d, Mr. Thompson of Vacaville has an article as full of bombast and sarcasm as an egg is full of meat, and offers it as evidence that the Muir peach is not a seedling.

When I entered this controversy I did so in good faith, as I knew nothing more of the origin of the Muir than I had stated, viz.: That I had discovered the peach at Mr. Muir's. Never having seen or heard of Pool's Late Yellow, I believed the peach I found to be a seedling from the Crawford, and simply called it the Muir.

No one will be more pleased than I to know the true history and origin of the Muir. To obtain this information, it seems necessary to continue this controversy. Mr. Thompson in the Rural of February 2d tells the public that he can give the history of the Muir, and will be most happy to do so in a future article in the Rural. I do not believe that Mr. Thompson can explain or give these historical facts. Hence duty compels me to reply to his article in the Rural of February 2d.

Davy Crockett's motto was, "Be sure you are right, then go ahead." On that line I propose to work it out. I have no ax to grind; no personalities to hurl back at Mr. Thompson; I simply want to get at the facts in the case. Mr. Thompson must take up the trail at Mr. Wolfkill's, where he lost it, and trace it to Mr. Muir's, and prove that the tree had been budded; nothing less will satisfy the public.

It does not take an over-bright intellect to see that his argument does not hold together. There is confusion in it; in fact a flat contradiction. In the Rural of October 13th, Mr. Thompson told the public that I had procured the buds at Mr. Muir's. In the Rural of February 2d he modifies that statement and says he only followed the trail to the celebrated orchards of the Wolfkills on Putah creek, and that here I had got the buds. Now in the name of common sense, which story would Mr. Thompson have the public believe? What we want is historical facts. Mr. Thompson must make the connecting link between Mr. Wolfkill's and Mr. Muir's.

According to Mr. Thompson's own argument, it has been 30 years since the death and burial of Pool's Late Yellow. It lay in the grave 14 years, and 16 years ago it was resurrected by me and named the Muir, when it came forth in all its glory and beauty, possessing a rich and delicious flavor, a perfect gem—the poor man's peach in every sense of the word. It is evident that Mr. Thompson, like the great Pathfinder, Col. Fremont, has lost the trail. It would be well for him if he could call in a second Kit Carson to take it up and lead him out of the difficulty he is in.

Is it possible that Mr. Thompson does not know that 99 out of every 100 of the intelligent and progressive fruit growers have pronounced the Muir the best peach in the State, and have placed it at the head of the list as a canning and drying peach? Then why does he persist in declaring that I have been palming off on the poor ignorant fruit-men a renegade—a worthless tramp of a fruit? Why does Mr. Thompson so vehemently assail the Muir? Does he think all the fruitmen are cranks and cannot tell a good and valuable peach when they see it, or is Mr. Thompson the one and only bright and shining star that can follow a trail?

If Mr. Thompson is correct in the history of Pool's Late Yellow (and all the standard authorities bear him out in it, as quoted by the editor in the Rural of Oct. 13th), then the Muir of to-day and Pool's Late Yellow of 30 years ago cannot be the same peach. To prove that Pool's Late Yellow as described by Mr. Thompson in the Rural of Oct. 13th and Feb. 2d will not apply to the Muir, I dropped a postal to a few of the leading fruit-growers and

dealers to obtain their views of the Muir. Below I give their replies:

What Dealers Think of the Muir.

Allison Gray & Co., 300 Washington St., S. F.: "Have handled the Muir and find it a most satisfactory peach for canners, because of its almost uniform size, its holding together qualities when cooked. It has a very small pit, is very free and is an excellent peach for drying."

Porter Bros. & Co., 404 Davis St., S. F.: "Have handled the Muir for seven years. It is a fine canning peach, and is the best dried peach that comes to this market."

E. C. Newton, Lakeport, fruit-dealer: "Have handled the Muir. It is the best peach that ever came to this market."

Growers' Opinions.

J. R. Springer, Woodland: "I have planted largely of the Muir this season. It is the best peach in this section."

John Sackett, Winters: "Have planted 800 Muirs. It is the best drying peach in the State."

Wm. Sims, Winters: "Have planted 350 Muirs this winter—all the trees I could get."

W. H. Price, Vacaville: "Have 250 Muir trees; as a canning and drying peach it is the boss and stands at the head of the list."

W. D. Rhoads, Winters: "Have 250 Muir trees; it is the best peach I ever saw."

D. H. Waughtal, Winters: "Have 315 Muir trees; it is an excellent peach."

Leonard Coates, Napa Valley Nursery: "I sold over 25,000 Muir trees since I obtained the buds from you. They have gone all over the State. I have 1600 planted on my place. I think as favorably of it as ever, both as a canning or drying peach. It is peculiar in adapting itself to so many different conditions—near the bay, or in the hottest part of the State, it thrives equally well and never curls."

E. Austin, Winters, foreman of H. C. Goodyer's ranch: "Have planted 3500 Muir trees. It is an excellent canning or drying peach."

G. W. Hincley, Winters: "I know of no better canning and drying peach in the State."

W. J. Pleasants, Winters: "Have planted 500 Muir trees; it is the best drying peach I know of. I can handle twice as many Muirs as any other variety with the same number of hands. It is an excellent bearer and never curls."

J. A. Johnson, Winters: "I have 100 Muir trees. I consider it A No. 1 for canning or drying. If I intended planting more trees, I would plant the Muir."

George Graham, Vacaville: "The Muir is a splendid table peach; for canning and drying there is none better."

Tucker & Tubbs, Vacaville: "Have planted 500 Muir peach trees; have dried it and find it A No. 1 for drying."

A. T. Hatch, Suisun: "I think very well of the Muir peach for canning, and it is a good drying peach; one of the best. I have planted 2500 Muir peach trees and prize them among my most profitable peaches."

C. M. Silva & Son, Newcastle: "We regard the Muir in the lead as a drying peach. As a canning variety we consider the Muir better than any we have seen except the Lovell, which we got from you. We had Pool's Large Yellow peach from Rochester, N. Y., and we can see no similarity between this and the Muir on our grounds."

W. & A. Brink, Winters: "Have planted 500 Muir trees; it is an excellent canning and drying peach when properly treated."

G. W. Thissell, Jr., Winters: "Have in orchard 1100 Muir trees; it is the boss peach."

D. B. Derby, Vacaville, agent for California Nursery Co. at Niles: "I sold in this locality (Winters and Vacaville) during the seasons of 1886, 1887 and 1888, 16,000 Muir peach trees. I believe the Muir and Wager are decidedly two distinct varieties. I have them both in fruit."

R. E. Farrington, Phoenix, Arizona: "I have sold 15,000 Muir peach trees since I obtained the buds from you. I find it to be one of the best, in fact I would not exchange it for any other peach. I cannot furnish trees so far to supply the demand. I find they fill the bill as represented in the Pacific Rural Press by yourself and other prominent horticulturists of making one pound of dried fruit from four of the fresh. The Wager resembles it, but ripens a week earlier than the Muir, but the Muir takes one pound less fresh peaches to the pound of dry."

J. M. Robinson, Vacaville: "Have in orchard 1500 Muir trees. For canning and drying the Muir cannot be beat."

James Wilson, Winters: "Have 250 Muir trees. As a canning or drying peach, there is none better; the pit is small and is very free; flesh heavy and rich, and does not dry away much."

John Rook, Niles, President Cal. Nursery Co.: "Have sold Muir peach trees, from the original stock received from you, as follows: In 1886, 11,000; in 1887, 21,000; in 1888, 15,000. Could have sold as many more if we had the stock. I consider the Muir the finest of all yellow peaches, considering flavor, firmness, color, small pit and drying qualities."

Comments on the Evidence.

With all this evidence staring Mr. Thompson in the face, is there any reason or sense in a man trying to prove that the Muir is that worthless Pool's Late Yellow? Can it be possible that the Muir is a horticulture tramp? If so, from whence comes its fresh vitality? May be its Rip Van Winkle sleep in Pomona's bur-

ial-ground generated new vigor. Of course Thompson of Vacaville "can explain" (see Rural of Feb. 2d quoting his own words). Yes, Thompson of Vacaville is already on the trail and fully prepared to explain, and if needs be, in a future article of the Rural will, for the benefit of whom it may concern, be most happy to explain. Mr. Thompson, you owe that explanation to the public. Take up the trail at Mr. Wolfkill's, make the connecting link at Mr. Muir's, and then explain.

In the Rural of Feb. 2d, thirteenth paragraph, Mr. Thompson pauses for a moment, then takes wings and soars away to Persia, then sweeps down through the Roman Empire, then back to America, and for a period of 150 years following all the meandering trails of that worthless Pool's Late Yellow to its final burial-ground; then with a muddled and confused brain throws down the standard authorities in disgust and in wild confusion flies to the foliage, growth and characteristics of the tree in a frantic endeavor to sustain his rotten and flimsy argument. After telling the public that he was on a hot trail, and would be happy to explain, he then, like a drowning man, catches at every straw, in his latter paragraph proposes some time in the future to drag me before a pomological court, and there in the presence of that august body expose my ignorance, and show me up in the true light—blockhead, a crank that knew not what he was talking about. No sir, Mr. Thompson, you assailed the origin of the Muir through the Rural Press, and through the Rural we must settle it.

Winters, Cal.

G. W. THISSELL.

FLORICULTURE.

Easily Grown Ferns.

[Written by DR. LORENZO G. YATES, F. L. S., of Santa Barbara, for the California State Floral Society.]

In all the vegetable kingdom there is perhaps nothing which civilized man has cultivated for amusement or home decoration more satisfactory for the purpose than ferns. They require less care for the results obtained, and make a more continuous display of beauty, thereby paying a larger dividend on the investment than any other family of plants.

The tribe of cryptogamous plants known as filices, or ferns, must necessarily attract the notice and enforce the admiration of lovers of the beautiful in nature, being not only beautiful in themselves, but also adding a peculiar charm to the scenery where they are grown.

Many dwellers in cities and villages, or other localities where ferns are not found in a state of nature, love to cultivate them, often partly as remembrances of pleasant excursions to deep and shady canyons, where the otherwise rough and unsightly rocks were covered and toned down by carpets and screens of beautiful ferns and mosses, and where hours might be spent in admiring the graceful and delicate forms, the luxuriant growth and the agreeable coloring of the living plants, and in gathering specimens to dry for home decoration, or for comparison and combination with those of other and perhaps far distant localities or countries.

Nothing can be more interesting than to watch the development of ferns in cultivation, the plants sometimes throwing up, almost in a day, fine shoots which rapidly unfold their lace-like fronds, giving the observer the result of nature's work, which, though so rapidly disclosed above ground, has taken months of labor for its preparation in the laboratory beneath.

In our day we may enjoy the beauty of the ferns, although they may lack the interest which they were regarded by our ancestors, arising largely as it did from the superstitions connected with them.

It is now pretty generally known that ferns are flowerless plants, developing their seeds or spores on the pinnae of the fronds; but less than 20 years ago the inhabitants of many parts of Europe had not forgotten the traditional belief in the mystic power of fern-seed. In some parts of England there was, and probably is yet, a tradition that the fern blooms and seeds only at 12 o'clock on midsummer night, and that in order to catch the seed, 12 pewter plates must be used, as the seed would pass through 11 of the plates, but be caught by the 12th. Nor do our philosophers teach us as formerly, that demons watch to carry away the fern-seed as it falls, to prevent any person from obtaining it, as it was believed that the possessors of fern-seed were enabled to walk invisible, which accomplishment the demons, no doubt, were anxious to monopolize themselves.

Ferns grown in shady nooks and otherwise unoccupied corners on the shady side of the house, will, if sufficient moisture is supplied, persistently grow and increase, gracefully unfolding their delicate and beautifully arranged fronds.

The varied size and habits of growth of the different genera and species afford plants suitable for almost any place which one may desire to beautify about the house. The Arborescent forms such as *Dicksonia Antarctica*, and others, furnishing trees; the *Lygodiums* or climbing ferns furnish the vines; *Aspidiums*, *Aspleniums*, *Pteris* and other genera furnish the low-growing feathery masses which so effectually fill in the background and corners of the outdoor fernery;

while the low-growing species of *Adiantum*, other genera, with a carpeting of *Lycopodium* and *Selaginellas*, finish up the foreground. There are also minute species which only require a nut-shell, a knot-hole or a depression in a rock wherein to exhibit their miniature beauty.

The genera and species of intermediate requirements and utility are very numerous and widely disseminated, and owing to the increasing interest taken in their cultivation, the native plants of widely separated countries are being rapidly brought within the reach of the amateur fern-grower.

Dry sandy soil, rich loam, muck, peat, dead wood, living trees, water, barren rocky soil, and even bare rocks may all be accommodated with species of ferns suitable for growth in or upon them.

A great many species of ferns will thrive in a lath house if protected from the winds, and many who cannot conveniently have a conservatory may derive a great deal of pleasure from the cultivation of the hardier species. Plant the ferns in stout boxes, old buckets, etc., with suitable soil and good drainage. These may be placed on the ground or piled up in a group to suit the requirements of the spot and the taste of the grower. Rocks should be placed so as to hide the unsightliness of the boxes, and the interstices should be filled with peat, living moss, or masses of the roots of common ferns from the woods.

During the past seven years the writer has been experimenting on various species of ferns from foreign countries, to test their adaptability for outdoor cultivation. Many of the exotics have given more satisfaction than the native species grown under the same conditions. Several of the latter die out without apparent cause when moved from their native habitat. Among the most satisfactory plants grown under varied conditions are the following:

Dicksonia Antarctica, too well known to need description.

Dicksonia Davallioides, large fronds and finely-divided pinnae.

Aspidium Falcatum, rich, dark-green leathery fronds, a native of Japan.

Onychium Japonicum, a very handsome fern, with delicate, finely-cut foliage, as fully entitled to be called lace-fern as some other species which pass under that appellation.

Hypolepis Repens, as beautiful as the *Onychium*, but of a much more robust habit when grown out of doors.

Pteris Tremula, its regular branching fronds growing from two to four feet high, and its bright-green pinnae and chestnut-brown stems giving it an unusually airy appearance.

Pteris Cretica and its variety, *Albo-lineata*, with its distinct white line running the entire length of the sterile fronds, and the fertile fronds, thrown well above the others, making it one of the most popular ferns in cultivation.

Pteris Serrulata, more easily cultivated than almost any other exotic species, adapting itself to almost any condition or manner of growth.

Asplenium Bulbiferum, another popular fern, its finely-divided fronds pendulous and covering a space of four or five feet; profliferous, the bulblets ornamenting the upper surface of the frond.

Aspidium Aculeatum, Von Angulare, the profliferous form of which makes an exceptionally beautiful plant, the young plants growing the entire length of the ripening frond, and so thickly placed as to hide the central portion of the frond by their mass of delicately tinted moss-like foliage.

Adiantum Hispidulum, resembling somewhat *Adiantum Pedatum*, but very distinct. Many others might be added to this list, but time and the length of this paper forbid.

A large number of the North American ferns will do well and prove satisfactory under cultivation. Of our California species, *Nephrodium Patens*, *Woodwardia Radicans* Var. *Americana*, the three *Adiantums*, *Pedatum*, *Emarginatum* and *Capillare-veneris*; the *Pellaea*, *Cheilanthes Californica*, or lace fern, *Cheilanthes Clevelandii*, *Notholaena Sinuata* and its varieties, *Gymnogramme Triangularis*, *Aspidium Munitum* and *Aculeatum* with their varieties, *Asplenium Felix-femina*, *Lomaria Spicant*, *Polypodium Seouleri*, *P. Californicum*, and others.

Too little attention has been given to the cultivation of the ferns of the Eastern States, many of which could doubtless be introduced here. *Nephrodium Patens* grows in Florida and Texas, and its occurrence in Santa Barbara county seems to be the result of an accidental distribution or a holding over of a species which has otherwise died out on this coast.

There are special works on ferns which give cultural directions.

A few hardy palms, a clump of feathery bamboo, a pot of the lovely ethereal *Asparagus-Nana Plumosa* or *Tenissima*, will add to the loveliness of a fernery. They are all hardy and easily procured.

The writer would be pleased to receive notes from any one who has had experience in the cultivation of native or exotic ferns out of doors.

ODDS AND ENDS OF SOAP.—Every piece that becomes too small to use, lay aside, and when a sufficient number have accumulated, boil them in a little hot water till all are melted, then pour into a mold, and when cold you will have a nice cake of soap. You can use a glass dish for a mold by heating it thoroughly before pouring the melted soap into it.

PATRONS OF HUSBANDRY.

Grange Gatherings.

California.

Butte Pomona, Masonic hall, Yuba City..... Mar. 20
 San Joaquin Co. Pomona, Lodi hall, Lodi..... May 25
 Sonoma Co. Pomona, Grange hall, Santa Rosa..... Apr. 17
 State Grange, Sacramento..... Oct. 1

Oregon.

Deputies Voorhees and Hilcary have arranged meetings as follows:
 Mission Grange..... Mar. 18
 Woodburn Grange..... Mar. 19
 Butteville Grange..... Mar. 20

Lane Co. Pomona Mt. Holly Grange..... May 4
 State Grange, Sa. em..... May 28

Interstate Commerce Amendments.

The Interstate Commerce Commission has issued a lengthy circular calling the attention of common carriers to the provisions of the recent amendments to the Interstate Commerce Act, and urging that especial care be taken to avoid violations thereof.

Among the declarations of the amended portions is one to the effect that no advance shall be made in joint rates, fares or charges, except after ten days' notice to the commission, and no reduction shall be made except after three days' notice. Time in each case is to be computed from the day when the notice of change reaches the office of the commission in Washington.

Transportation of passengers or freight over continuous lines or routes operated by more than one carrier upon through tickets or through billing necessarily implies the existence of joint tariffs. In future all advances or reductions in joint tariffs will be given the same publicity as required in the case of individual carriers.

Another amendment makes it now an indictable offense for any carrier to participate in the reception of compensation either above or below the established rates for the transportation of any joint traffic whatsoever. The commission is required to execute and enforce the provisions of the Act, and it is made the duty of any District Attorney of the United States, upon the request of the Commission, to institute and prosecute all necessary proceedings for that purpose.

These rules apply equally to joint and individual tariffs.

Regarding export traffic, the commission understands that the through rate is determined by the addition of the ocean rate prevailing from the point of export. Therefore the inland rate to such point of export is subject to the foregoing regulations.

Growing Crops Exempted.

Assemblyman Howe's bill, No. 549, has passed both the Assembly and Senate and is in the Governor's hands. He claims it will exempt growing crops from taxation. The bill is entitled "An Act to amend Chapter II of Title IX, Section 3617 of the Political Code of the State of California, Relating to the Definition of Terms." The seventh of the series of amendments reads as follows: "The term 'growing crops' includes: All growing crops, cereals, vines, nut-bearing, fruit and ornamental trees." No farmer will ever object to the lessening of his taxes. He pays the greater part and receives the least direct benefit of any class of men.

San Lucas Prospering.

San Lucas Grange is determined to get there if she be but an infant in years. S. Sherwood, the Secretary, writes Secretary Dewey to hurry up and forward them sashes and pouches for three candidates to whom they expect to give the first and second degrees Saturday. He adds the cheering intelligence that two men and three women sent in applications for membership at the last meeting.

Indorsed by Santa Cruz.

MESSRS. EDITORS:—I am instructed by Santa Cruz Grange, No. 68, to say that the resolutions passed by San Jose Grange Feb. 16 were fully indorsed by Santa Cruz Grange at a called meeting held to discuss said resolutions March 6, 1889.

B. PILKINGTON, Secretary.

Santa Cruz, March 7, 1889.

WE hope to announce next week that Past Master Coulter will address San Jose Grange on the occasion of conferring the third and fourth degrees on a prize class of a dozen more men and women with the new combined ritual, on the 23d inst.

Bro. Carr's Address at Stockton.

At the reception at Stockton on the 6th ult., Worthy Master Carr spoke at length, and was listened to by a large gathering of Patrons and farmers generally. The Stockton Mail gives the following synopsis of Bro. Carr's remarks:

In his address before Stockton Grange, Worthy Master Carr of Wisconsin dwelt particularly upon co-operation and the benefits arising from a union such as that formed throughout the land by the Grangers. He urged all who were eligible to join it. It was not the hard work to be an active member of a Grange, he said, that it was a few years ago. The institution was sailing along finely now. At first there were few of the Grangers who were accustomed to presiding over deliberative bodies; but they were not so green now. There were numbers of farmers who could not only preside, but could make able addresses. There were plenty in every subordinate Grange who would make good representatives. They could be picked out by the dozen in such subordinate Granges as that in Stockton. They had become educated faster and better than they knew. "Think," said he, "of things as they were when you organized and see if you have not gone a long ways ahead of where you were then."

The Strength of Union.

During the struggle for the passage of the oleomargarine law the power of the Grangers as an organization was manifested. The speaker did not know how it was in California, but in Wisconsin every Grange passed resolutions; and if any one had looked into his office at 11 or 12 or 1 o'clock at night they would have found him busy penning letters not only to the members of Congress who went from Wisconsin but to the entire 401 of that body. All the Granges worked for it and it was enacted.

What the Grangers especially needed was more representatives in Congress. He was proud, he said, of those they had there. There was Senator Spooner who used to brag that he could twist a band about a sheaf of wheat as quick as any man alive; he had got so that he could twist an argument with the very best of them. Spooner said in an address that the Grange was the best institution to which the farmer could belong. He was saying nothing against other organizations, but the one for the farmer to join, both to build up himself and his interests, was the Grange. It was purely a farmers' organization.

The Farmers' Congress.

"There is," said he, "the Farmers' Congress of America. It may be and doubtless is a very good organization, but how is it made up? The Governor of each State appoints a member for each Congressional district of the State. That is all very well, although it has a little coloring of politics to it. But how does the Governor know whom to appoint? There is a Vice-President chosen for each State, and he sends in to the Governor the names of those he wants appointed to the Congress, and the Governor appoints them. I got an appointment once myself; but do you suppose that if I had anything to do with the Farmers' Congress of Wisconsin that I'd leave my Grange—that I'd strip off this badge that I wear? No; and if I can't accomplish anything in the Grange, I certainly cannot in the Congress, for there I should lack the immediate backing and encouragement and enthusiasm which comes from a popular connection and a popular backing. The members of the Congress can but at best follow the Patrons of Husbandry; but if they will not work with us, let them work as they are, but the strength ought not to be divided."

The Alliance and Congress.

The Southern Alliance, the speaker said, was preparing to merge itself into the Grange movement. They were satisfied that it was the best thing they could do. Their objects were the same and they had done nobly in assisting to pass some needed laws. At the last session they joined with the National Grange in the endeavor to get the postage reduced on packages of seeds and bulbs. The movement started in the Grange, and it went before the House and through the Senate, and became a law which benefited everybody except the great corporations.

But the great need of all agricultural organizations was to change the political complexion of Congress. "Why," said he, "they have given away 400,000,000 acres of land which should have been kept for your children and for mine, and the people have sat idly by and allowed them to do it. These great possessions have gone to the rich and mighty corporations."

Land Steals.

"There's the Northern Pacific—and I came over their road—got 47,000,000 acres—every other section for 40 miles on each

side of their road. It is an outrage. There are in our land 20,000,000 acres owned entirely by foreigners who care nothing for our Government and nothing for us but to make money out of us. One man owns 75,000 acres, of which 40,000 are in Illinois; and his tenants there were equally as degraded as those of Ireland. What was the result? The Granges of that State started and took hold of the movement to put a stop to such things there, and they put it through the Legislature, and now those lands are for sale. They are all in the market; and so they should be all over the land. If I had lungs like the ocean and a constitution like that of the United States [applause] and Gabriel's trumpet and was on a pedestal 14,444 feet high, I would shout to the country and tell them the condition of agriculture all over the land and do some good; but we must change the complexion of Congress.

Granger Law-Makers.

"I do not know but you may have a farmer as a representative of this State in Congress—I hear you have. Is it true?"

Worthy Master Overhiser answered that it was.

"Well," continued the speaker, "we have none from Wisconsin. Now, when Mr. Carlisle wants to make up his Committee on Agriculture he has to make it of just such timber as the people give him. Of the 15 composing the Committee on Agriculture, five are lawyers, four are merchants, two are bankers, three are said to be farmers, but I have my doubts about it, although one is a planter, and one has no occupation. I say that I have my doubts about those being farmers who are said to be farmers, because I knew a lawyer who was put down as 'the farmer from Walworth,' and he wore that name all through the legislative session. But there are five lawyers on the Agricultural Committee, and what do you suppose we want of lawyers on an Agricultural Committee? We have no use for them. We want men who know a beet from a cabbage, and we told Speaker Carlisle so. That was because they had one on the committee—a New York fellow—who didn't know a beet from a cabbage."

Settling Difficulties.

"We have no use for lawyers, anyway. There may be half a dozen here in this room. If so, I wish them well; but if there are any Grangers' sons present who contemplate being lawyers, I'd say to such: 'Think well before you do it.' Grangers have no use for lawyers if they live up to their ritual. If they find matters of difference they can select their friends—one each, and they the third one, and they go before the Grange and settle matters. It then goes about as it does in Denmark before the Elect Court of Consultation, where four-fifths of the cases are settled, although they have the right, if they choose, of going before the court afterward. But they have no lawyers there."

The Strength of the Grangers.

"Now, the lawyers are multiplying very rapidly, but not as fast as the Grangers. Wisconsin University turned out 71 lawyers last year and let them loose on an unprotected people."

The speaker then told some of the inside workings of the University at Madison, and how the farmers dug and sweat and got so tired that they couldn't read, and made no movement, but let 240,000 acres of land donated by the Government become tacked on to the State University, the representatives of which selected the lands and sold them at \$4 25 an acre and put the money into bonds so that they could spend the \$18,000 a year interest to educate lawyers.

"I don't know how it is here," continued he, "but the farmers of Wisconsin pay 70 per cent of the taxes of the State, and I presume you pay over half in this State. See to it that you get an agricultural college. You are strong enough to do it, but for God's sake and your own sake don't get one that will turn out over one-half of its graduates as lawyers. Farmers are apt to send their brightest children to those universities that educate the head and not the hand, while they keep the lunkheads at home to learn farming. The Grangers are strong enough, I repeat, to provide agricultural schools for their brightest boys, and, if you haven't got such a school, don't let the present session of the Legislature pass till you get a bill through providing for one where head and hand shall be educated together. But divorce it from the classics. The two will no more mix than will oil and water."

Agricultural Schools.

The speaker then enumerated some of the schools which were purely agricultural, and cited commendably those in Michigan, Massachusetts, Iowa, Kansas, Mississippi, and others he had visited. These were doing a great amount of good. They were lifting agriculture from a despised occupation

to a science, for the most successful farmer must be a scientific man. If children were sent to the other schools they were very apt to come out, not as they went in, robust and strong, but broken in health and good for nothing, many of them forever after.

"Make farming honorable," said he. "Make it honorable? It is so already—nothing more so. To follow it is to keep the hand and head both steady and true. Why, the Emperor of China once a year goes out into the field and turns a furrow to show that he considers agriculture the foundation of his country's prosperity and to make it honorable. It is truly so in all nations, and it goes back into the dim days of antiquity for its origin. But to get the best results for ourselves we must get together, we must work together, and we must vote together."

Farmers Fighting a Combine.

The following extracts show that different States are preparing for the fray:

If farmers are really in earnest in their efforts to fight trusts, there is one way in which they can show it; that is by refusing to buy twine this year to bind wheat and other grain on their harvesters. Every man who has a self-binder and grain to harvest can now show whether he really means business. Of course it will be a little inconvenient to cut grain without binding it, but is not the object to be attained worth the sacrifice? If it is not, then it is not worth the trouble and expense to fight any trust. The issue is fairly and squarely before the people. The twine men have formed a syndicate and propose to put the price of twine at any figure they choose. No one uses this twine but farmers. If they refuse to buy, the trust will be smashed. Will they have the nerve to refuse?—*St. Louis Journal of Agriculture.*

I have been waiting for some one who can wield a more trenchant pen than I can to speak out in condemnation of the Binder-Twine Trust, but as no one does, I will try my hand in hope of awaking the people to what I think a great danger. This trust is surely one of the greatest steals that has come to light in this age of trusts. A few men (so the manufacturers say to shield themselves from their share of the steal) have bought all the raw material in sight and forced the price up from six to ten cents per pound.

Now what do you say, Mr. Editor and brother farmers? Shall we submit, or shall we do as any other trade or occupation would do, rebel, for if we submit now to 20 or 25 cents per ball, will we not next year submit to another steal of five or ten cents per pound?

Had we not better refuse to buy a ball of their twine? We can cut our grain with our binders, and bind it by hand as we did before the time of binders. The binder will put the grain off in as good shape for binding as the self-rake did, and I well remember when we thought that a perfect machine.

Of course it will cost us a little more this season to bind by hand, but if we submit to the rapacity of these robbers they will not stop until they put this twine up till it would be barely below the cost of hand binding.

If we simply say to them, "keep your twine; we can and will do without it if you persist in your extortion," one year will be sufficient for them, and they will not try it again if they find we are in earnest.

I, for one, will pay extra price for hands to bind my grain before I will allow myself to be robbed in this manner. I would like to hear from some of your readers who are better posted than I am on this matter, and also from you. Can nothing be done to stop this wholesale robbery of an already overburdened farming community?—*R. A. L., Octagon, Ind., in Indiana Farmer.*

We are glad our correspondent has called attention to this matter. It had been mentioned to us by another reader, but for the time was forgotten. If any considerable number of farmers can be induced to join you in your determination, it would help to break down the trust. Your plan is the only practical one that we can think of under our present laws. We see it stated that the farmers of Iowa are organizing to resist the demands of the Binding-Twine Trust.—*Eds. Indiana Farmer.*

Grange Election.

POINT OF TIMBER.—F. J. Qualt, M.; J. E. W. Carey, O.; L. J. Willis, L.; M. T. Ivory, S.; A. Plumley, A S.; S. J. Ivory, C.; Geo. Caple, T.; S. M. Wells, Sec.; —, G. K.; Maggie Caple, Corrs; Minnie J. Carey, P.; Sarah McCall, F.; Dora Lemoine, L. A. S.

VALLEY GRANGE of Pacheco will give a social dance on the 26th inst. in that town.

The Grange and Fruit.

[Remarks of JAMES BOYD of Riverside at an open meeting of Tulare Grange on the occasion of a Harvest Feast March 2d.]

Worthy Master and Members of Tulare Grange:—I feel rather embarrassed by reason of not being accustomed to public speaking, by being called on to address such a goodly company of toilers and producers. Being, however, an ex-Granger myself and a life-long toiler and producer gives me the greater feeling of confidence and makes me more at home, and so I will not take up your time or weary you by profuse apologies, but will rather go ahead and try to show you what we have done in Riverside, believing that will interest you more than any personal remarks I might make.

Claiming to know somewhat of Grange principles, I believe that co-operation is one of the fundamental principles of the Patrons of Husbandry. It will not therefore surprise you to hear that what has been done in Riverside has been done mainly by the co-operative efforts of the citizens themselves.

It is rather surprising to me to find that here in Tulare the water question is in an unsettled condition, and that it is in the power of one or two men to defeat what would seem to be the will of a whole community. In Riverside we settled the water question years ago in an effectual manner, and to day in Riverside wherever a man owns or claims land he has water and uses that water on his land. It might be in our favor somewhat that in our irrigation customs we had mainly followed the old Mexican and Spanish laws and customs on that subject, and that our courts in Southern California had always recognized such laws and customs in their decisions, and it makes me almost wonder, when I find that other laws and customs are apparently followed in Tulare, whether I am really in California.

It may rather surprise you, with your comparatively large land-holdings, to hear what we are doing in Riverside, and as a matter of the general good I believe that the sooner you get rid of a portion of your surplus lands and put them into the hands of intelligent fruit raisers the sooner your county will go on to greater prosperity. In view of the fact that some uneasiness is felt for fear that you may have a dry season that will partially at least curtail your crops, when I look at your fertile soil and your snow-crowned Sierras I have no hesitancy in saying that you need never suffer for lack of moisture in your soil, if you will only go on and use the water with which by nature you are abundantly supplied. But in order to do this to the best advantage, land must be held in small subdivisions.

In Riverside the man who owns ten acres of improved land is thought to be well off, and I see no reason why you cannot raise grapes and deciduous fruits to perfection with winter irrigation and thorough cultivation. You may not be able to raise oranges successfully right round here, but you can raise apricots, and the remark was made to me by a Riverside man on the train on my way up here, that if he could raise a crop of apricots every year in Riverside it would pay him as well as his orange grove.

Now in Riverside we expect to sell \$1,000,000 worth of fruit this year, and this is grown on 6000 acres not yet in full bearing, and this gives a living to a population of 6000, or one person to every acre of land under cultivation. But our water system has cost us all told \$1,000,000, and now we have the best water system in California. In addition to our irrigating ditches, we have 300 inches of artesian water piped through the whole settlement under a pressure of 200 or 300 feet, and every family in the settlement has the privilege of using that water, and a voice in its management. By our system of co-operation, we have spent over \$60,000 on a new high-school building, and when the needs of our rapidly growing population demand it, provision is made for an expenditure of \$15,000 or \$20,000 more on it. And what we have done has been done without any such organization as you have, simply by the systematic efforts of the people themselves. This requires education, energy and enterprise directed in an intelligent way, and we old settlers of Riverside have had to pay for our education in such a way as you need never have to, as when we started in Riverside comparatively nothing was known of orange-growing or raisin-culture, and every man picked and packed his fruit for market in the way it seemed best to himself, until now, as a result of our efforts, we have six large packing-houses, and you can if you wish sell your fruit on the tree or vine and get your cash for it without any further trouble.

As an instance of the costly experiences we have had in Riverside I would say that I am now digging up and burning lemon

trees, which wood must have cost me \$100 per cord, and as a result of our mistakes the man who buys unimproved land in Riverside to-day is likely to make more money on his investment than we who got ours at a cheap rate. It was perhaps fortunate for us in one sense that we in Riverside could not raise anything successfully except fruit, as it compelled small holdings and kept out an undesirable class of settlers. As a further argument in favor of small holdings of land I would say that we have railways, motor roads and street railways all through our settlement in such a way that half a mile or less will in most cases bring any of our citizens in reach of some one of these modes of intercommunication, and by this method we can enjoy the country in the city and the city in the country as may be desirable.

Fruit-raising demands intelligent efforts, and this is all in harmony with the aims and objects of the Grange; and when I heard a brother make a remark about legislative action on the saloon question it made me feel like telling you that when we wanted to get rid of the saloon in Riverside we declared it a nuisance and got rid of it, and though I do not go as far as some prohibitionists, believing that the most effectual way of closing the saloon is to stay outside of it, I still recognize the fact that there are some who cannot resist the temptation, and it is our duty to remove that temptation in the best way in our power.

The logical outcome of my desultory remarks is that what has been done in Riverside can be done in Tulare county, and that would imply that wherever you carry on fruit-growing on a rational basis, every 6000 acres treated in that way ought to produce \$1,000,000 and support one person to every acre.

Ready and Desirous.

The following letter received at this office shows that our Southern California brethren have an opportunity to get into line again if they will only embrace it:

Am glad to hear so much good Grange news about the Grange at Chino, San Bernardino county. I am willing and ready to do all the work required, provided it can be done by or before the 12th of this month and provided you will furnish me with the necessary rituals and other outfits. These you can forward to my address at Chino, Cal., care of B. V. Moffitt, provided they need to be sent.

My intention is to leave Yuma about the 8th of March, and I shall stop over at Colton, Riverside and San Bernardino for a couple or three days. Will stop there longer if the people want a Grange. Notify me by telegram here up to the 8th instant if the Chino people want to organize. If there be any chance to reorganize Los Angeles Grange, I will agree to remain there to do the work, provided it can be done by the 20th of March. Please advise the proper parties at Los Angeles of my desire to help them, and tell them to address me by letter any time up to the 14th of March at Pasadena, Los Angeles county, care of Prof. E. S. Carr. I am going to visit with Bro. and Sister Carr for a few days. You can also reach me at their place up to the 14th instant. My intention is to stop at Tulare and other Granges on my return trip, whenever I can catch their regular meetings by two or three days' stop-over. I expect to be in San Francisco about the first of April, and shall call to see you.

I hope we can get the Grange plant in Southern California to growing again. This is a fertile section of California, and the Grange ought to be so planted and nourished that the harvest would be large from the land of the orange. My program is elastic, and I will accommodate all if possible. E. W. DAVIS.

Yuma, A. T., March 4, 1889.

[All will be glad to read such a letter from our Worthy Overseer and, while noticing the evidences of returning strength, breathe a word of caution for him to "step with care" as to assuming anew too many labors of his office.—EDS.]

BRO. D. FIELD, a Patron from Maine, is a hale-looking man for one over whom three-quarters of a century have rolled. He has served in the Legislature of his native State, and thinks it a grand thing that he can cross the country and find himself welcomed by the Grange, an inmate of the same home. He has not settled definitely where he will live in our State, but expects to locate in Oakland and join Temescal Grange. We enjoyed the good brother's conversation. The Grange is strong in Maine. Turner Grange, he said, met early in the morning and stayed all day. That is the kind of meeting to hold. No wonder such Granges are strong.

More Ready for Reorganization.

Bro. Logan sends us the following cheering letter from San Luis Obispo:

Have just returned from Arroyo Grande, where I secured over 40 signatures for the re-establishment of a Grange. I made no appointment for the meeting, not knowing when I could secure the services of a deputy to organize it. Perhaps Bro. Webster can go down after our meeting at Cambria. I will go up to Creston to-morrow and try to get a Grange at Starkey, and perhaps at Parkfield, as he (Mr. Webster) is desirous of having the people organize in those neighborhoods. He thinks that with five or six Granges in the county a Pomona Grange may be organized eventually.

Approves of the Idea.

Bro. A. P. Roache writes us from Watsonville as follows:

I should have answered your letter ere this, but actually have not had time till now. Your idea of awakening interest in the Grange by calling closed meetings in the morning and open ones in the afternoons I think an excellent one, and I believe it would result in great good. If two or three interested Patrons would go at it in earnest, much could be accomplished. The main difficulty would be in getting anything like an attendance; but that also could be overcome. I feel that something must be done to induce newly organized Granges to persevere, and our intercourse with them should be such as to make them feel that they really belong to a great fraternal family, and that the interest of the parent Grange in them does not cease after they have received the obligation and the State Grange and Deputy their fees.

Your plan seems to offer a practical solution of the problem. I would respectfully suggest also that it would be in order for a number or perhaps for all the Granges of standing to recognize and welcome all new Granges to the great circle of brotherhood in some appropriate way and make them feel that we have a real, tangible interest in their welfare and life.

I visited Gilroy Grange, all but one member being present, and gave them a thorough drill. Told them all I knew and a great deal more. They are anxious to have their charter returned or renewed, as was also Hollister.

Hope to do some solid work this year. We feel much encouraged over the improvement in our Grange. I shall have to apply to the State Grange for a new housekeeper, as my wife has become a regular scout in Grange work and has secured three or four new applications, the first in four years. We hope to report some progress right along.

Bro. Roache will please excuse the liberty taken with his personal letter. To the Grange at large we would say: Weigh our vigilant Steward's advice well, and show through correspondence that you have a welcome for the new Granges. Offer its members an exchange of ideas through the Press or by letter and encourage them by bracing up anew to the work in your own Grange and thus give them a good example.

Want the New Rituals.

BRO. A. Kingery, the Secretary of the newly reorganized Paso Robles Grange, has forwarded Bro. Dewey an order for the new combined rituals so that they may lose no time in initiating the two sexes at their next meeting, March 16th. They expect to induct a large number into the mysteries of Ceres, Flora and Pomona.

Woodbridge Grange.

MESSRS. EDITORS:—At the regular meeting of Woodbridge Grange, No. 84, P. of H., held March 5, 1889, the First and Second Degrees were conferred on a class of eight, three sisters and five brothers.

By motion, it was decided to confer the Third and Fourth Degrees at the next regular meeting, March 19, 1889, and to have a Harvest Feast, to which the officers of the State Grange and all Patrons in good standing are invited. Yours fraternally,

ROBT. G. WILLIAMS, Secretary.
Woodbridge, March 7.

BRO. MCCONNELL of Elk Grove Grange, a member of the Executive Committee, visited our sanctum this week. He was here to attend the meeting of the Grangers' Bank Directors.

A Feast Approaching.

BRO. O. F. Alley writes from San Jose, under date of March 11th, inviting Bros. J. T. Cobb, Secretary Michigan State Grange, and David Woodman of Michigan to visit their Grange at the conferring of the third and fourth degrees, and extending a similar invitation to Bro. Dewey. As Bro. Woodman does not expect to be able to attend, Bro. S. T. Coulter has been requested to be present. They will not have the Harvest Feast this week "because we did not initiate but six last Saturday, owing to various reasons. Two thought the meeting was in the afternoon, another had an appointment with a dentist, and why the other three did not put in an appearance I have not learned. So we hope to get the remaining six in next Saturday, and then on the following Saturday we will confer the Third and Fourth Degrees and have our Harvest Feast, to which you [Bro. Dewey] are bidden, also Bros. Woodman and Cobb."

Fortunate Farmers.

According to a special in Saturday morning's papers from Marysville, quite a stir has been created there by the receipt of the news that the United States Government has taken action to stop hydraulic mining on the creeks in Shasta county discharging into the upper Sacramento river. It is learned that a complaint was recently filed in the United States Circuit Court and that Judge Sawyer granted injunctions, which have just been served. Ex-Judge A. L. Rhodes of San Francisco is said to be retained by the Government for the express purpose of prosecuting debris cases affecting navigable waters. It appears that hydraulic mining has been going on in Shasta county on a large scale, and considerable damage has been done. The action of the Federal Government in this matter is hailed with delight in Marysville, and is held to show that the Government authorities will henceforth relieve the agricultural interests of the need of carrying on any more debris suits.

Points for New Granges.

A Patron from Santa Rosa writes Bro. Dewey as follows:

Our Grange is in a flourishing condition. We have a class of 12 on the way and in hopes to soon have more. Bro. S. C. Carr of Wisconsin took us by surprise, coming in upon us while the Pomona Grange was in session. He took his seat by the side of his brother, whom he had not seen for 35 years. He rose to his feet and introduced himself. You can imagine the picnic we had then during the day. He addressed the Grange, and we were sorry it was not an open meeting so the farming community could have heard him; but they have heard of him since through the Rural Press. It has waked up our Grange, and they are still hard at work getting new members. There are four Granges in the county and there are several places where there should be one, viz.: Petaluma, Sonoma, Glen Ellen, Forestville, Healdsburg, Geyserville and Cloverdale.

Reports Progress.

MESSRS. EDITORS:—We are pleased to report to the readers of your valuable papers the progress of the Plumas Grange in Plumas county. It was organized in 1874, and has a membership of 40 good, substantial working members. The financial standing is good, with money on hand and money at interest, and with the hand of charity ever open and giving aid to all the needy and suffering. On the 16th inst. they had a public installation of officers, followed by a sumptuous feast and a grand good time. O. McElroy of Rocky Point was installed as Master, the right man in the right place.

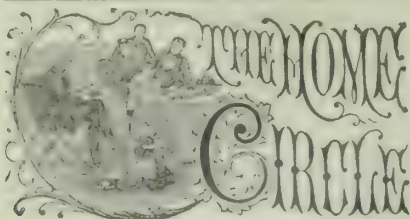
MRS. E. J. STEPHENS.

Sierraville, March 6.

Had a Good Time.

Saturday was a field day for Tulare Grange, it being the occasion of an official visit from State Secretary A. T. Dewey and State Lecturer D. Flint. After the secret session at the hall, the Patrons formed in line and marched to the Cosmopolitan hotel, where a banquet had been prepared. Not having been present at the banquet, your correspondent cannot give a very extended account of what took place there, but understands that a royal good time was had.—Tulare County Times.

BRO. WIGHTMAN, Worthy Treasurer of Sebastopol Grange, visited us Monday. He says they are holding their own with about 60 members.



"The Land of By-and-By."

The valleys stretched before me in that visioned land of light;
They were green with gleam of meadow, and with orchards they were bright;
On terraced hills the vineyards stood in seemly row on row,
And the grapes' full clusters purpled in the noon-tide's ruddy glow.

In the pastures, herds were feeding; in the harvest fields, the corn
Heaped the wains as 't were the largess from old Plenty's fabled horn.
Back and forth on traveled highway sped the traffic of the day,
And the train's shrill whistle sounded like a challenge to delay.

Round the pleasant dwellings, roses shed their sweetness on the air,
And the children's happy voices sounded blithely everywhere;
And the fair-faced gentle mother, on her errands to and fro,
Felt the joy and peace of loving from her glad heart overflow.

Want's grim specter lurked no longer at the household's festal board;
Gone was hunger, gone was malice, and the many-millioned hoard,
Men with men as brothers meeting, now no longer rivals stood;
Heirs of nature's common bounty, children of one Fatherhood.

In that visioned land of beauty, rose the city's pillared domes;
Street on street of stately warehouse—square on square of spacious homes.
But no alleys, foul and narrow, and no tenements were there—
Shutting out God's air and sunlight, shutting in the heart's despair.

In and out the crescent harbor, ships were passing on their way,
Freighted with the wealth of Europe, with the treasures of Cathay;
On the crowded wharves were mingled all the Indies' fragrant store,
With the hardy skippers' cargo from the coasts of Labrador.

Man no more in impious striving thwarted Heaven's eternal law;
Broad and fair as earth's dominion, now his heritage he saw.
Labor's giant forces never Greed's strong hand might fetter more;
And the throbbing pulse of commerce now was felt from shore to shore.

The starry banner floated—a welcome to the world;
But above its silken streaming was a fairer flag unfurled;
Upon its virgin whiteness no nation's name had place;
LOVE was the golden ensign that shone for ALL THE RACE.

In fancy oft I linger in that visioned land of light,
And see the happy people, with their faces calm and bright;
They mind me of "the shining ones" of whom the Pilgrim told;
And I think the Land of Baulah is this which I behold.

—Frances M. Milne, in *Weekly Star*.

Raining Rocks.

Meteoric Stones and Rural Philosophy.

EDITORS PRESS:—Probably the year was A. D. 1858—or along there somewhere—when I took a ride with a high-toned peddler of dry goods and notions in the counties of Muskingum and Guernsey of the State of Ohio. The season was summer, or at least the weather was warm. This peripatetic merchant was a man prone to display, and his wagon was an artistic evolution of the wainwright's mysteries; the run gears were delicate and beautiful to look upon, yet strong and tough as the celebrated white-oak, ash and hickory woods of that country could warrant; the bed, or box, was constructed with a system of shelving inclosed in a painted shell of clear poplar lumber, highly polished, and in shape like an oblong square, one-roomed house, one story high, with a roof on it pitching gently right and left, from side to side; and all the woodwork of this wagon was painted a bright red, except the delicate blue penciling on the wood of the wheels and the bright glossy black on the ironwork. Above this wagon-box at the front was a black leather top, like a buggy-top, covering the seat. The outside of this painted shell could be let down at each side and at the tail, resting upon suspender chains from the frame of the shelving, and when let down, either one or all three of these parts could be used as counters on which to display, and from which to sell, goods, wares or merchandise. In front of this mercantile vehicle trotted or pranced four jet black horses.

[NOTE.—This description of an ancient ped-

dling-wagon is for posterity; to show to the later-born and unborn readers of the RURAL PRESS (and may they be thousands upon thousands, Selah.) that their ancestors, "away back in the States," were no slouches in the peddling line when the grizzly bear on the California State shield was only a cub.]

Well, as I was about to say, I was journeying with the peddler, riding on the comfortable seat of the wagon aforesaid, and heading for the town of Cambridge, when, suddenly and without warning, a missile (afterward found to be a black stone about an inch and a half irregularly square) struck the highly polished roof of the wagon-box behind us. "Whoa!" exclaimed the merchant, as he stopped his team with an instantaneous twist of the reins around the brake-lever, and off he went down under the wagon, where he employed himself for a moment in crawling under the forward axle-tree, so as to unhook the traces of the wheel horses. I, of course, without exactly knowing why, had promptly followed the merchant, and as we both sat, sort of flat, down underneath the wagon, I asked: "What's the matter? What's up?"

"Nothing up," says he, "but something down. I can stand most any kind of a shower; but when it rains rocks, I want to get on the underside of something hard."

There was a kind of whizzing roar in the air when the thing struck the wagon roof, and also a wide scattered plumping, or, maybe, it was a pattering, all about; but the phenomenon only lasted about half a minute of time.

Hearing no more disturbance in the air, we crawled out and up, after re-hooking on the wheel horses, and went on our way, in no wise, so far as we could see, damaged other than a shattered hole in the roof of the wagon-box—a hole which looked to have been shot there by a large ball from a small cannon or a big shotgun. I asked the merchant why not stop and examine into the matter; but he said he wanted to get out of a place where it rained rocks, and he drove right along until we came to the small settlement where he expected to remain over night and "trade with the natives." Upon examination he found the little black rock where it had fallen into a pile of woolen comforters—a kind of knit neck wearing goods—and although the black stone was, at the finding of it, cool enough, it was evident that it was warm, if not hot, when it lodged there; for it had roasted the woolens right next to its surface as if they had been scorched by a sad-iron, a little too hot for family use.

That evening at the little cross-roads village the merchant had quite an audience to listen to his story, examine the black stone, and buy small articles of various merchandise. And at night, after supper, in the public room of the half-tavern half-farmhouse, we had an immense conversation on the subject of meteors, falling stars, shooting stars, etc., and one elderly person related the story of the shower of falling stars—in 1833 I think he said it took place.

[NOTE.—"The posterity of the constitution"—by which I mean my young fellow-citizens—do not know, perhaps, much about that shower of stars. Some day in the RURAL I will tell them all about it—if I am spared—for I was there and saw it.]

Well, we had a very interesting time at that half-tavern that night. I have never heard so much variety of strictly original scientific astronomical opinion in all my life. They were nearly all willing to believe our story about the shower of stones, because most of them had heard the roaring noise at the time we spoke of. They were old-fashioned Western farmers and laborers, none of whom had what they called "book larnin'," and nearly all of them said they had "heered that nize," and one of them "sort o' thort he seed sumfin most like to er fi spec' atween him an' the sun, but wa'n't shore what it could be tell he heered about this yer rock a-hittin' the peddlin' wagon."

But as to where that stone could come from, that was the "main pint afore that ordience." Several of the cereal Solons thought "hit must er come from the moon." But "wher wer the moon at that time er day?" To which last question the merchant—the traveling merchant—ventured to remark that it didn't matter where the moon might happen to be that day, at that hour, because if that stone came out of the moon and the moon being millions of miles distant from the earth, then that stone must have started on its journey several years ago. To this last statement the crowd responded: "Gosh!"

And then we all retired for the night.

Next morning, after a little more trading in dry goods, we strung out the black horses and wended, and, along toward evening, we arrived at the town of Cambridge, and there our story of the falling stones dwindled into smallness, because they had there a black stone of over sixty pounds in weight which had fallen hot, down from the upper air, about the hour that we dodged from the shower of stones.

This meteoric stone—the sixty-pounder—was exhibited for some time as a curiosity, and finally found permanent lodgment in some scientific museum—the name of which museum I could remember years ago, but not now.

The moral of this sketch is that when rocks are raining it is no cowardice to seek shelter.

J. W. GALLY.

Watsonville, Cal., January, 1889.

GENIAL CUSTOMER (in cheap restaurant)—Is the mut'on broth good to-day?

High-toned Waiter—Don't know, sah. I don't eat heah, sah.

Our Back Yard.

[Written for the Rural Press by MAUDE S. PEASLEE.]

We were new-comers to California, and the New Year found us settled in a little home on the outskirts of a busy mining town of the Sierras.

The house stood in a lot of four acres which was entirely uncultivated. The fence needed repairing and Donald saw there would be much work to be done on the place in the spring.

"In the spring!" exclaimed a neighbor. "Why, man, you ought to begin work at once."

I looked doubtfully out at the feathery flakes of snow that looked seasonable and homelike to me, so recently from New England.

The wiser neighbor assured us it wouldn't amount to anything, and that indeed any young trees we meant to set out ought to be in the ground even then.

The snow melted before night, and the next day was exceptionally fine; so I resolved to explore the yard while the men worked.

In the lower end of the lot the ground descended abruptly to a small creek skirting two sides of the yard. It had its rise in a spring that bubbled out from one of a pile of large rocks. There were a number of wild and woody looking shrubs near the running water, and as I had been eagerly studying up on the California flora, I easily classified them.

The manzanita with its dark-red scaly bark, its thick, leathery leaves, and its delicate pink, wax-like buds almost in bloom, was the most prominent. I found the blossoms too sticky to handle, but already giving forth a faint fragrance.

The pea-flowered cercis or Judas tree had not yet put forth its red buds, which legend tells us were white till the arch traitor hanged himself on one of the blossoming trees, whereat it blushed for shame. It was so old a friend that I knew it at once.

A chaparral bush in the next yard peeped through at me, and one branch had saucily extended even into my own territory; so I claimed it for one of my own.

Following the creek back to the spring, I found, to my great delight, many tiny green ferns uncaring their feathery fronds under the coaxing rays of the warm sun. Later in the season I scoured and planted some maiden-hair fern in my little rockery. It is not very common in this part of the Sierras.

I found a wild grapevine among the branches of some willows and locusts that fringed the upper edge of the creek. Already it made the trees beautiful with its graceful sprays and clinging tendrils.

I saw some azaleas near the house and sympathized with the love of the beautiful in the one who preferred them to a decorative shrub of any other kind more often cultivated.

The light upturning of the sod which was the only plowing they gave the ground that year was very favorable to my wildflowers and shrubs. The winter crept on; an occasional rain of perhaps several days, alternating with days of glorious sunshine, drew the flowers from their quiet sleep.

After each storm I searched eagerly for new beauties. My Judas tree was in full bloom in March, and in the sheltered nooks among the rocks I found my first delphinium, somewhat resembling our Eastern larkspur save in its brilliant crimson hue. Creeping on the ground were tangled masses of delicate mimulus, hardly at all musky in its faint fragrance.

The fritillarias came a little later, and by the last of March the buttercups blossomed in cymes as high as my waist. Every day now I found new species. A few plants of the oxalis or pink-and-yellow wood sorrel were scattered through the yard, while the Hossakias grew in great profusion. They were almost equal to the cultivated sweet pea in fragrance and appearance, though daintier and more fern-like. I had both the pinkish-purple and the white dodecatheon, and soon came the violets—purple, white and the large golden ones, with purplish-brown markings.

I found the white violets outside our lot and transplanted a little bed of them. In this way I contemplate adding to my treasures, and have marked the locality of two or three fine specimens of ceanothus and fremontii. The yerba santa I can get at any time, and a friend has promised me a madrono tree. I have heard of a specimen of aristolochia, and know where I can get a good clematis.

It took me some time to find these, but I will have them all for my own before another summer comes. I have been called cranky and chimerical when I have expressed a fear lest some species be extinct before I find and add it to my garden of wildflowers along the creek; but indeed my fear has some foundation when cattle and sheep roam by thousands over the most fragile flowers, trampling them underfoot, perhaps never to live again.

My pets flourish well, and as late as June I gathered flowers last year. The snowy lily bell of the calochortus, with the brilliant yellow of the eschscholtzia, and the delicate heliotrope of the fragrant wild hyacinth, when surrounded by a fringe of feathery fern fronds, made a more artistic bouquet than it is the lot of many to behold.

Grass Valley, Cal.

Matchmaking.

[Written for the Rural Press by HILDA DELRESTHERE.]

Some little time since the Rural Press printed an article from a well-known author on "Ethics of Marriage," and soon after one entitled "Women." These authors, as well as nearly every one who has lived to mature years, know that the world is full of unhappy marriages—so full that they crowd out of mind nearly all the happy ones; and as I believe many unhappy couples have been brought together by matchmakers, I would like to warn the careless, thoughtless matchmakers, as well as those who practice the art with fell intent, and I hope the thoughtless at least will hold their hands, or tongues rather, from meddling with the lives of others in the way of bringing about matrimonial ties.

Why connive to bring together any man and woman who of themselves would never have thought seriously of entering the marriage state? What right have you to say, "he is such a good man, and she is such a smart, good woman, they will suit each other exactly?" Who has made you judge over them? Many an honest man and many an honorable woman have suffered all their natural life from being mismated—their tastes, sympathies and conscience being so different that the burden of bearing and forbearing with the other's faults would keep one of them, and perhaps both, in continual torment.

Another matchmaker says: "I have a lady friend who is so lovely in life and heart, but she is poor, and it would be so nice if Mr. So and So, who is well off, would take a fancy to her; then she would always have a good home." She praises her friend to the gentleman and the gentleman to her friend, and repeats to them whatever kind words they say of each other.

Well, it is the strangest thing that gentlemen oftentimes cease to be gentle when they are husbands. They seem to delight to cut their wives to the heart, and though she cooks, washes, irons, mends and makes, and tends the children, he never seems to think she earns anything, but it is he who is so good to give her a home. He could not hire any one to do what she does for less than \$20 per month; probably it would cost him \$40. But the few words she said at the altar have made her his slave, and she hates to ask for a dollar. Of course there are many cases where the wife should practice the strictest economy, but then so should the husband.

I know there are hard-hearted, wasteful wives who do not know or care how much they spend—at least I have heard of such; the newspapers are full of their doings. What a pity they married till they found a man they loved well enough to consider his welfare as well as their own, and who loved them well enough to do the same.

About a year ago there came a question in the *Call* as to whether a couple could marry and live comfortably on an income of \$80 per month. If they loved each other and knew how to economize, there is not the slightest doubt but what they could, for I have known a family of five to live comfortably on \$25 per month where there was no rent to pay, and the wife did her own work and made her own and the children's clothing.

But do not let any amount of income persuade you to marry a man you do not love, or who has bad habits. Remember tobacco and whisky are bad for men as well as women, and you do not want a husband who indulges in them.

Questions and Answers from the N. Y. Weekly.

MRS. GOODHEART—Why don't you give that poor woman a dime?

Mrs. Tiptop—Mercy me! I can't afford to spare a cent. As it is, I don't see how we're ever going to pay for that \$300 dress I had to order for the charity ball.

LECTURER (who intends to trace the origin of certain dishes and give their historical significance)—Now, ladies and gentlemen, many of you will doubtless be surprised at the question I am about to ask: "Why do we eat mince pie?"

Voice (from a dyspeptic-looking auditor)—Because we are fools.

MISS FLIGHTY—Have you decided to take any part in the discussion, "What will we do in heaven?"

Good Minister—No, Miss. I am at present much more interested in the question, "What shall we do to get there?"

LITTLE BOY—Do hotel clerks get very big salaries?

Kentucky Uncle—Not often.

"Then how can they afford such big diamonds?"

"Well, you see, they don't have to pay anything for their licker."

MR. WINKS (looking over the paper)—Cheap, Drugg & Co. are selling all sorts of patent medicines at half price.

Mrs. Winks—Just our luck. There isn't anything the matter with any of us.

YOUNG FOLKS' COLUMN.

Dean and Swift, Trappers.

Phil Dean and Ned Swift were State-of-Maine boys whose fathers owned adjoining farms, and, like a majority of the juvenile residents of Northern New England, they were passionately fond of anything pertaining to hunting or trapping. Every fall a line of dead-falls or "culbeags" were set by them along every brook and pond in their vicinity in hopes some shiny-coated mink might be tolled into one of them, but somehow their labors in that line had been in vain. Once a gaunt, savage-looking "woods" cat had been captured, and again one of those little black-and-white-coated animals of unsavory odor had been found with the weighted-bar resting across its body, but as Ned said, "Mink weren't their grip." When the ground was covered with snow, however, and they turned their attention to hares, or "rabbits," as they termed them, they succeeded far better. Back of their homes extended a large tract of swampy land, grown up to small firs and alders, over which was a complete network of paths beaten by the clove-shaped feet of these nocturnal rambles. The boys would select some spot in the path where it led under some overhanging branch, and attach to this a fine, strong wire with a noose in the end, made "slip knot" fashion, which, suspended a few inches from the ground, would catch the unsuspecting hare around the neck, and before he could stop his headway the noose would tighten, and in a very short time he would be lying dead in his own highway. Often the boys would catch six or more in one night; these they would freeze up, and when they had two or three dozen they would ship them to a provision dealer in Boston. After paying all expressage, each "rabbit" would net them about 16 cents. Not a large sum, certainly, but farmers' boys have but few opportunities to pick up pocket-money during the winter months, and the boys were well satisfied.

Early one winter a sample copy of the *American Field* came to the postmaster of the office where they went for their mail, and well knowing the boys' liking for all outdoor sports, it found its way into their box, for the two families took turns at going for the mail, and the same box was sufficient for both. The boys read its pages with a great deal of pleasure, and itched to share in some of the exciting hunting and fishing adventures they recounted. Nor were the advertising columns neglected. Each cut of gun, hammer or hammerless, was commented on, and the different styles of folding-boats were subjects of endless conversations. One small advertisement in particular caught their eye and created a great deal of feverish excitement in their small bodies. It read something like this:

"LEPUS AMERICANUS. The subscriber, wishing to stock his preserves with Northern white hares, will pay \$6 per pair for them delivered alive and in good condition at any express office. Address S. V. Arundel, Booneville, Ky."

There was little sleep for the boys that night, and early the next morning they were busily engaged with saw and hammer in the manufacture of box-traps. Six of these were completed by night, and loading them on to a hand-sled, they hauled them down into the swamp, and baiting them with pieces of carrot, set them in the most promising "runs" they could find. When they visited them the next morning they were greatly disappointed to find every trap as they had left it, with a well-beaten path leading around them. Phil produced from his pocket a strip of salt fish, which he cut into small bits and proceeded to tie on to the spindles, explaining to Ned as he did so that his grandfather said that rabbits were just crazy to get at anything salt, and that "fishskin" just made them wild, it being for small bites of something salty that caused them to gnaw the antlers of moose and deer when left in the woods. The next morning one of the traps was sprung, and raising the cover slightly a mass of blue-white fur could be seen. They carried the trap home in high glee, and quartered their prize in an unused-corn chamber. As they were carrying the trap back to the swamp they started a hare out from under a small hemlock. It immediately struck into a "path," along which it hopped a little way and then rising on its haunches gazed back at them with ears very erect. An idea came into Phil's head, and dropping one end of the trap, he ran toward a lot of underbrush at their left, telling Ned as he ran to start the rabbit along when he (Phil) whistled. Bunny seemed in no haste, and before long from some little distance in advance came a low whistle. Ned clapped his hands, and the timid little animal went "pattering" his way down the path and soon out of sight. Wondering what was in store, Ned quickly followed, and hearing an excited shout from Phil, peered under the brushwood to see a scurry of snow ahead and Phil drop on to all fours over it. Dashing through the obstructions, he was amazed to see Phil emerge from a snow-bank with the struggling hare clasped in his arms. "Hurrah," he shouted, "I am the chap to catch rabbits, tell your folks," for like too many boys he was addicted to the use of slang when a little excited.

"How in the world did you ever do that?" cried Ned.

"You see," Phil answered, "I remembered that one of our wire nooses was tied up in this tree, and I knew if I could only get in ahead of Mr. Bunny, it would be only a minute's work to put it in position, and then when he came down the path we would have him. So I fixed the wire and then hid behind this stump and waited. It seemed so long before I heard him coming pat pat along, that I was awfully afraid he had got ahead of me. Oh, you three-dollar beauty!" he exclaimed, looking the trembling creature in the face, "I think we are going to get more of you in just this way." And they did. One would set the noose in the path and hide near enough to liberate the captured animal, while the other would beat about in the vicinity of the path till a hare was started, and nine times out of ten he would run his head through the loop and in another minute he would find himself tied up in an old shorts-sack, which the boys used to convey them to the house in. So successful were they that in a week they had a dozen nice, healthy hares in the old cornroom, and deeming this a sufficient number for one shipment, they procured two shoe-boxes from the store at "the Corner," and slating the fronts of them, put six into each box. A good allowance of carrots, and salt fish too, was put in with each colony. Then two large pieces of cardboard were nailed, one on each box, Ned having lettered them as follows:

S. V. arUndeL?

boONevilleLe-KY.

From DEAN & S W I F T, KEtCHers ov Hairs
WOODVILLE, MAINE.

Pleas Watter the animals.

The express agent at "the Corner" had a good laugh when he read the address, but that it was readable was proven when about a fortnight later a letter addressed to Dean & Swift, Trappers, came to the Woodville postoffice. It was from Mr. Arundel, and as the boys opened it a narrow slip of paper fell to the floor. Ned looked at it first on one side and then on the other, but could not understand it. Phil meanwhile read from the letter that the hares had arrived in first-class condition, and that they might ship 20 more as soon as possible; also that Col. Ranter, a neighbor of Mr. A's, would soon order a few dozens.

"But," says Phil, "there isn't any money here. He only says he has 'inclosed a check in full to date.' What does that mean?"

"I suppose this must be what he means," said Ned, holding up the slip of paper, "because it says \$36, but I can't see even one dollar, can you?"

"What is the matter, boys?" asked Mr. Ring, the postmaster, who saw they were puzzled over something.

"It's this scrap of paper," said Phil, handing it to him. "What does it mean, anyway?"

"Why," replied Mr. Ring, "that is a certified check, and if you will sign your firm name on the back of this I will give you thirty-six dollars for it."

It was two happy boys who trudged home that night, for in spite of their father's assertions that they would never hear anything more from their "menagerie," as they had termed the crates of live hares, the boys had persisted in their work, and now had 14 more confined in the corn-room.

Before Mr. Arundel's order was completed, one came from Col. Ranter for two dozen. They only had time to fill this before the snow left in the spring; but with over one hundred dollars in their pockets, they felt well pleased with their winter's work. The next fall they took their money to pay their expenses at an academy in a neighboring town, and we venture to say that when they next shipped a crate of hares the expressman saw no reason to laugh at the address.—J. C. Mead in Portland (Me.) Transcript.

GROWTH OF HAIR AFTER DEATH.—A remarkable case of the growth of hair after burial recently came to light at the disinterment of the body of Amzy Coeyman, who died in Belleville, N. J., over four years ago and was buried in the old private cemetery of the Coeyman family. When Mr. Coeyman died his beard was about two inches long and the hair upon his head was the usual length worn during life. When the coffin was taken up for reburial in Mount Pleasant cemetery it was discovered that the beard had grown to the length of two feet, and that the hair upon the head had also grown out from the sides and front of the face, completely obscuring the latter from view. When brushed back it was found that not only the face but also the body were in a remarkable state of preservation.

A BRAVE PRIEST.—The gallant fight which Father O'Hare has been making against the saloons of Greenpoint, L. I., has resulted in several wealthy members of his congregation, who are interested in the liquor business, leaving his church. Father O'Hare, nothing daunted, continues the work of organizing the American League of the Cross, whose members pledge themselves to keep away from all saloons. He declares that more money has been taken in the collections in his church since the withdrawal of the saloon keepers than ever before, which he attributes to the fact that his people have more to give to the church, having spent none in the grog shops. Nine-tenths of the crime in his parish, says Father O'Hare, comes from the saloons. The liquor dealers, it is claimed, are organizing for mutual protection. Exchange.

GOOD HEALTH.

The Passion and Danger of Anger.

Anger is a passion most generally excited on the moment, which subsides more or less rapidly, according to the nature of its cause. It always exerts a powerful and deleterious influence upon the system, which becomes augmented in proportion as the passion approaches toward insanity, as, when it becomes furious and ungovernable.

A person in a fit of anger may be at once recognized by the redness of the face, the furious sparkling of the eyes, and the violent agitation of the whole system. Some are unable to speak, while others are extremely voluble and vociferous; not unfrequently, persons foam at the mouth in a fit of anger. Some persons when angry, gesticulate violently, stamp their feet and display an uncommon degree of physical strength; others involuntarily shed tears.

Violent anger is very deleterious to health, and the more often it is suffered to be aroused, the more frequently will it develop itself upon even trivial causes. From its action upon all the functions of the system, it is liable to cause epilepsy, the rupture of a blood-vessel, convulsions, fainting, apoplexy, and even sudden death. Moderate anger is apt to be longer continued, and accompanied with hatred, malice, revenge, regrets, etc., rendering the person fretful and petulant, and gradually inducing some permanent disease. They who lead a life of voluptuousness and dissipation are the more ready subjects of this passion. Suckling infants have often been thrown into convulsions after having partaken of the breast-milk of a previous angered nurse.

To overcome the propensity to angry feelings requires much resolution and perseverance. As with fear, it is necessary to have a constant watch upon our minds, maintaining a degree of presence of mind upon the most sudden emergencies, and promptly repressing every angry feeling as it arises. The most powerful means of suppressing this passion is at once to concentrate the whole of the mental powers and resolve to overcome it; let the higher powers of the mind control the person. It is the power of thinking, reasoning and judging that renders man superior to the brute. When angry, contentious words only tend to fan the flame; it is better, therefore, to be silent, to take a draught of cold water, to withdraw one's self from the exciting cause, or adopt any other simple means, until the anger has passed away and reason resumed its sway. Never attempt to settle business when the mind is in an irritable or fretful condition. Persons of an inflammable disposition should be temperate in food and drink, especially avoiding the use of stimulating food and intoxicating drinks. The true gentleman, the man of proper education, can always hold command over this passion.

Children should be carefully guarded from those causes which will arouse and cultivate their angry passions. Improper punishment, disappointments, tyrannical conduct, partial justice, etc., should be carefully avoided. Children have their rights, which should be held sacred by every parent and teacher. Instead of being treated as mere machines, slaves, or brutes, they should be governed by such methods as will repress evil and cultivate virtuous propensities, remembering that they are but men and women in miniature, possessing every mental attribute common to the adult, though more keenly susceptible and alive to external impressions. "Train up a child in the way he should go, and when he is old he will not depart from it," is a truth too little understood, or too little acted upon in the present age, for instead of training and properly educating them, they are more frequently driven up as one would drive cattle to market.—Yolo Democrat.

DANGER IN THE CORN-COB PIPE.—"Your head aches, your eyes bother you, and your throat is always parched," said a well-known physician, diagnosing the case of a patient. "Now, I can tell just what brings on these difficulties. You smoke a corn-cob pipe. Isn't that a fact?" The sufferer replied in the affirmative, but was curious to know how the doctor learned what kind of a pipe he used. "I see so much of this that I couldn't help knowing what ailed you," explained the medical man. "Men apparently enjoying perfect health come to me every day. They are great big robust fellows, and they all suffer from the same cause. At first I was non-plussed, and led myself to believe that it was a new disease, but I finally discovered that the whole trouble was caused by corn-cob pipes. It needs no credulity on your part. Notice yourself when you are smoking a corn-cob, a sickly, overpowering odor, which fills up your throat and lungs and causes a smarting sensation of the tongue. That is the smoke of the burning cob, and it contains enough creosote to cure a ham."—N. Y. Sun.

NEW USE FOR POND LILIES.—A species of pond lily that grows everywhere in the Eastern States, it is said, was recently recognized by a Chinese botanist as a famous Chinese food, the delicacy of whose potato-like root is considered finer than the best yams. The discoverer sent specimens to a Chinese farmer in California, who planted them and raised nearly a ton, which, it is said, are selling at the rate of 20 cents per pound.

NATURE'S METHODS.—Dr. Wythe, Professor of Microscopy in Medicine, lectured on "The Bright Side of Disease" at Cooper Medical College some time since. He said disease was a wicked demon, as the Chinese believe; not an effort of nature to throw off morbid matter; not an affair of the imagination to be cured by an effort of will—all these were bingaboos. Nature's methods should be observed. "Take, for instance, a fainting spell," continued the doctor. "The prostrate position into which a fainting person falls is the best possible posture. Consequently, a person who has fainted should never be lifted to an upright position. In a fever one wants liquids because the stomach is weak and cannot digest solid food. A physician's duty is not to prescribe an antidote, but to remove obstacles in the way of nature, then the *vis medicatrix nature* will do the rest. When a limb is broken and the surgeon has fitted the broken parts together, Nature pours a kind of fluid all around them which hardens into a perfect cylinder, fitting the bone exactly. Besides this, a plug appears in the hollow center of the bone, uniting the parts until perfect union has taken place. Then cylinder and plug are gradually dissolved."

POISONOUS MACKEREL.—There has been a correspondence in the *British Medical Journal* on the subject of poisoning from the eating of mackerel. Details are given of several cases, and in commenting upon them, Dr. A. W. Flood, surgeon R. N., retired, writes from Bundoran: "I believe the cases that I have seen were caused, not by eating the mackerel when out of season, but rather to the fish being too long kept, and, in addition, being exposed on a cart to the heat of the sun for sale. I believe mackerel to be a most dangerous fish for food, unless great care be taken to get them fresh, as ptomaines are developed very rapidly in them. I may say the residents here do not consider them safe when they are more than 24 hours out of the water."

DOMESTIC ECONOMY

Tested Recipes.

[Written for the Rural Press by ADA E. TAYLOR.]

Maple Sugar Caramels.—Break two pounds of maple sugar into small pieces and put into a pan on the fire with one quart of rich milk. The pan must be deep enough to allow the sugar to expand as it boils; stir without ceasing; test as usual in cold water, and when it is sufficiently brittle it is done; then pour into square buttered pans and score with a knife into small tablets.

Parlor Candy.—Beat the white of one egg very light, add one tablespoonful of water and one pound of confectioner's sugar; mix gradually until it becomes a smooth paste. Flavor with vanilla or to taste. If this seems it too much, add a little more sugar; mold and let stand in a cool place for about 20 minutes. For chocolate creams, mold into balls and dip in melted chocolate. For solid chocolate, mix grated chocolate with the paste. A great variety may be made by using walnuts, almonds, cocoanut or preserved fruit.

Orange Charlotte.—Line a mold or bowl with lady-fingers or slices of sponge cake. Soak one-third of a box of gelatine in one-third of a cup of cold water until soft; then pour on one-third of a cup of boiling water and one cup sugar and the juice of one lemon. Strain and pour in one cup of orange juice. Cool in a pan of ice-water. Beat the whites of three eggs stiff, and when the orange jelly begins to harden, beat it until light; then add the beaten whites and beat together until stiff enough to drop. Pour into a mold.

Raspberry Pudding.—Put one quart of raspberries into a deep dish; mix with five tablespoonfuls of sugar; mash the raspberries slightly with the back of a spoon. Beat six eggs as light as possible, and mix with one pint of cream or rich milk, and six tablespoonfuls of sugar. Flavor with lemon. Set the dish immediately into a moderate oven, and bake the pudding about half an hour. When done, set the dish on ice so that it will be thoroughly cold before it is served. A similar pudding may be made with ripe currants or strawberries.

Side Dish of Cold Meat.—Take one cup of chopped cold meat, season and add two eggs well beaten, one ounce of butter, and one large slice of bread soaked in boiling milk; mix well together. Form into round cakes and fry in nice drippings.

Paradise Pudding.—Peel and chop six apples very fine; add to them the grated rind and juice of one lemon, half a teaspoonful of salt, same of grated nutmeg, six ounces of sugar, one and a half cups of bread crumbs, and one glass of brandy. Beat six eggs and add last of all. Boil or steam in a well-buttered mold for two and a half or three hours. Serve with wine sauce.

Ginger Apples.—Peel and core four pounds of apples and cut into quarters. Put them immediately into a basin of cold water; when all are peeled put them into a preserving-pan with enough water to cover them; boil for 20 minutes and strain them through muslin; set the juice on the stove again, and boil it with four pounds of sugar, the grated rind and juice of two lemons, and a heaping teaspoonful of ground ginger; boil for a quarter of an hour, then put in the apples and simmer very gently for three quarters of an hour.

Vallejo, Cal.



A. T. DEWEY.

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SAN FRANCISCO:

Saturday, March 16, 1889.

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See Advertising Columns.

The Week.

The last rain is the best of the season and completely washes the tears from the faces of the croakers. When the dispatches speak of the sinking of railway embankments and the washing away of the outer ends of the wharves at the coast landings, one does not need to stand out in the wet to know that a good old-fashioned storm is on. The sou'wester has risen in its wrath for the first time this winter, and the result is valuable beyond computation both in material promise and in popular emotional elevation.

The rain, which is not over as we write on Wednesday evening, has reached nearly all

parts of the State, and in the interior valleys, where it was most needed, the downpour has reached drenching figures. So far as can now be judged, the outlook is for immense cereal and pasture crops and corresponding favors for tree and vine. Though there has been much apprehension during the last few weeks, the present storm gives confidence, for with the customary later showers there will be abundance. Already the record has passed that of last year at most points, and a sequence of growing weather will turn the State into expanses of waving grain and blooming flowers. It will be a good year, after all.

Against the Meat Combine.

A convention of legislative delegates from Nebraska, Minnesota, Colorado, Texas and Kansas, met at St. Louis on Tuesday to consider measures for fighting the alleged beef and pork trust.

After a temporary organization and the appointment of committees, Albert Head of Iowa introduced a preamble and resolution, reciting the evils of the Chicago and other combines and declaring that as the State laws are inadequate to remedy the evil complained of, Congress be requested to pass a law, with adequate penalties, "prohibiting any corporation, company or individual from entering into or becoming a party to a pool, combination, trust or confederation for the purpose of regulating, fixing or controlling the price of beef, pork, grain or other productions of the country; and that the Interstate Commerce law be amended so that it will work in harmony with the law above requested." Referred.

Craft of Illinois then offered the following:

Resolved, That we have been sent here to investigate as to the existence of a meat and beef combine or trust, and its mode of operation and its effect upon the price of cattle and meat, for the purpose of basing upon the findings such remedial legislation as may be necessary that can be lawfully enacted by the different States.

The object of this resolution, as stated by the members of the Committee on Rules, was to switch the convention off into considering whether such a thing as a beef trust or a monopoly exists, and so divert attention from the announced purpose of the gathering—namely, to recommend needful legislation. The resolution went to a committee.

Among other resolutions offered and referred was one memorializing Congress to make such amendment to the Interstate Commerce law as shall punish all interference or discrimination by railroads in the transportation of beef or pork in any its forms.

Tuesday night the cattle-feeders held a meeting, and protested against the efforts of the "Butchers' combine" to break down the dressed-beef business. Hon. Lafayette Funk of Illinois addressed the meeting. Resolutions were adopted protesting against any action on the part of the representatives that will have the least tendency to restrict or hamper the existing competition for live cattle; favoring the most critical and impartial national inspection of cattle and the products thereof at the place of slaughter.

The convention, which is still in session as we go to press, owes its significance mainly to the fact that it is made up neither of cattlemen nor of butchers, but of members of the Legislatures of different States.

An Excellent Appointment.

We are glad to learn from Eastern papers that Mr. S. N. Dexter North has been appointed Secretary of the National Wool Manufacturers' Association as successor to the late Dr. Hays, whose eminent services to the wool industry of the country have made his name familiar to every flock or loom-owner in the United States. Dr. Hays died about two years ago, and his place has not been filled hitherto because of the desire of the directors to select one fitted to carry on the work with the industry, spirit and genius which were characteristic of Dr. Hays. That they have secured such a man in Mr. North we know from personal acquaintance and association with him, beginning in college days, nearly 25 years ago. He is thoroughly sound on the tariff question and has for years made a study of the facts which win his advocacy. He has a natural taste for statistical data, and has by long journalistic experience acquired great facility in their collection and effective use. He is master of a

free and trenchant style of composition which has always been feared by those who have endeavored to foist fallacies upon the public attention in the guise of truths. We count Mr. North's enlistment in behalf of the woolen interests of the country very fortunate, and we expect a general recognition of the valuable services he will render.

Orange Auction in Chicago.

On Tuesday, March 5th, there was an auction sale of California oranges in Chicago, the fruit being put up by the Earl Fruit Co. and near-by growers. The sale was conducted by the well-known house of Richard M. Montgomery & Co. From the account of sales furnished us by the auctioneers we tabulate the following:

No. boxes.	Oranges per box.	Variety.	Price.
12.....	200 to 250.....	St. Michael	\$2 30
20.....	300 to 350.....	"	1 90
22.....	112 to 128.....	Wash. Navel	3 60
41.....	150.....	"	2 50
21.....	176.....	"	3 00
18.....	150 to 200.....	Seedling	2 35
15.....	226 to 250.....	"	2 15
62.....	300.....	"	2 00
13.....	360.....	"	1 95
20.....	128 to 200.....	"	2 30
10.....	128 to 175.....	Wash. Navel	2 60
20.....	200 to 250.....	"	2 30
31.....	150 to 170.....	Med. Sweet	2 30
20.....	200.....	"	2 20
38.....	226 to 250.....	"	2 30
25.....	128.....	Riv'side Nav.	4 55
25.....	112.....	"	4 60

Out of the offering which included the above sales, about 200 boxes were withdrawn. It cannot be claimed, perhaps, that the sale is especially significant, but it is certainly of considerable interest to growers.

The first Riverside Navel oranges of the season reached New York March 5th, and were received by Edward L. Goodsell, 103 Park Place, who makes a specialty of Florida and California fruits. Mr. Goodsell makes a very flattering report concerning this shipment, and speaks as follows:

They sold readily at \$5.50 for the 112 and 128 size fruit to the box. I pronounce the quality, as a lot, superior to any we had this season from Sicily, Spain or Florida. If the people of California can grow such fruit, and get such rates of freight as would allow it to be sold at a fair figure in this market, the future consumption in the East would be so great as to take the entire crop without any trouble.

This is an important assurance, in view of the quite general disposition to plant oranges in all favoring situations.

Death of Carlton Newman.

It is with sincere regret that we have to record the sudden death of Carlton Newman, president of the San Francisco Glass Works. Mr. Newman was suddenly stricken down when in apparently good health. He was out on business on the evening of Friday, the 7th inst., and returned home slightly indisposed. He rested well that night, but arose in the morning feeling still more unwell. His trouble appeared to be in his respiratory organs, coupled with weakness and irregularity of pulse. These symptoms grew rapidly worse until about 1 o'clock, when he died from failure of action of the heart.

Mr. Newman arrived in San Francisco in 1862. He had already acquired a thorough knowledge of the glass manufacturing business in Pittsburgh, and upon his arrival here saw an opportunity to build up that industry in this city. He started on a small scale at the corner of Rich and Townsend streets, but inside of two years his works were totally destroyed by fire, and he was left penniless. But nothing daunted, he immediately went to work with his friends and soon re-established himself again in the same business. From that time to the time of his death he has prospered, and built up a large and important industry, which now ranks among the most flourishing in the city.

In a short time after his second start he effected a consolidation with the Pacific Glass Works. At the time of his death he was sole proprietor of the extensive works under his charge. He was an inventor early in life, and secured the means of reaching this coast by the sale of two inventions. Mr. Newman was born in Wheeling, West Virginia, June 26, 1829. His life since he reached manhood has been one of busy and successful industry, and he largely enjoyed the respect and confidence of all with whom he came in contact. He was a man of warm and general impulse; manly and outspoken in all things. He fulfilled all the pre-

cepts of practical religion. Liberal in all things, there was nothing of narrowness about him either in religion, politics or social life. As an evidence of the estimation in which he was held by his employees, we need but refer to the fact that nearly all were present in a body at the last solemn rites over his remains.

Mr. Newman was an active member of the Manufacturers' Association of this city, and had just been elected a Director of the Mechanics' Institute. He was a Royal Arch Mason and member of Occidental Lodge of this city. He was also an Odd Fellow and member of several beneficiary associations. He leaves a widow, one son and three daughters—all of the latter married. He left two half-brothers, one Wm. H. Murray of the *Journal of Commerce* of this city and the other in business in Chicago. He was buried in accordance with the beautiful and impressive rites of the Masonic ritual. Notwithstanding the stormy character of the day, the large hall of the Masonic Temple was crowded by those who sought to do honor to his memory by their presence at the last sad rites which consigned to the earth all that was mortal of Carlton Newman.

A Floral Masterpiece.

The California State Floral Society is speedily advancing in popular interest and appreciation, and in the papers, discussions and exhibits brought forward at its meetings. The meeting on Friday of last week was a very good one. Much work was done in preparation for an exhibition which will be held in May next in this city, for which the final details will probably be arranged at the next meeting.

But we allude to the meeting especially at this time to speak of an exhibit of rare flowers made by John H. Sievers, one of the directors and an energetic participant in the work of the organization. We count this especially significant to show that in a new country, with the whole atmosphere filled with the industrial spirit, we are not losing sight of the pursuit of the beautiful for its own sake, and not altogether lacking in devotion to cultures the measure of which is not the purse alone. The exhibit of Mr. Sievers to which we allude consisted of a collection of orchids rarely, if ever, put together in a better or more tasteful style for exhibition purposes. The flowers were arranged on a moss-filled panel and included most all of the very choicest winter-blooming varieties of that beautiful and expensive class of plants—the orchids. Mr. Sievers thus placed together the most costly pets in his collection—not single flowers, but trusses or clusters of natural growth. A few of the varieties shown will be named to show to the connoisseur what a rich treat Mr. Sievers gave the society by his enterprising contribution: *Cattleya mossiae*, *trianae* and *Ludemannii*; *Phalenopsis amabilis* and *Schilleriana*; *Oncidium Cavendishii* and *grande*; *Lycaste Skinneri* and *aromatica*; *Lelia acuminata*; *Dendrobium nobile* and *Hillii*, etc. The splendor of the wondrous forms and varied hues of these rare blooms was well offset by the magnificent flowers of *Anthurium Andreanum* and *Scherzerianum* and with beautiful leaves of ornamental foliage, plants and ferns. The whole display was rare in conception and material, and would have been marked even among the most famous creations of the orchid shows in older regions of the world.

RESULTS OF ENTERPRISE AND SMALL HOLDINGS.—We call attention to the interesting and important remarks by James Boyd of Riverside at a meeting of Tulare Grange, which appears on page 245 of this issue. The secret of Riverside's prosperity and advancement cannot be too widely heralded, for they point the way to the development of many other regions in a similar manner. Mr. Boyd's remarks refer pointedly to these facts.

A GOOD SELECTION.—The appointment of Hon. John F. Swift of this city to be Minister to Japan is one that meets with general approval. It was fitting that our representative at the Mikado's court should be a citizen of the Pacific Coast, and Mr. Swift's acquaintance with the Japanese and their country renders him singularly suitable for this important mission.

CUSTOMS OFFICERS at Los Angeles and San Diego are of the opinion that much smuggling is done from the islands off the coast of California and Lower California.

California Grapes.

The beautiful picture upon this page calls forcibly to mind one of the chief horticultural masterpieces of California—the grape product. The picture is a direct reproduction from a photograph showing a section of vine in fruit, growing beside a cottage residence in the city of Bakersfield, in Kern county, the vine making a trellis of the posts which sustain the piazza. It is of the Black Hamburg variety—a grape famous in the covered graperies of England and the Eastern States, but of course rejecting such protection in California—in fact, thriving and bearing fruit of size and delicious quality beyond anything grown under glass in less favored climes.

The showing of this profuse fruiting of the grape naturally calls attention to the locality of

grown on small trees, the shorter the stump and the nearer the new canes come to the ground the better—in the warm interior valleys. Still when a vine is allowed to have its own way, and to rear its head aloft with some tall support to cling to, its growth and its weight of fruit are quite beyond the belief of those who have never seen them.

The Black Hamburg grape at a distance is the pet of the nobility who can erect glass palaces for its protection. The Black Hamburg grape in California is the friend of the humble settler, over whose habitation it will throw its bower of leaves, sheltering him from the fervid summer sun and yielding him fruit of grand size and vast amount, as the engraving indicates.

A PEAR TREE OVER THREE CENTURIES OLD. The Garden (London) gives the following de-

Action by Ayrshire Breeders.

C. M. Winslow of Brandon, Vt., Secretary of the Ayrshire Breeders' Association, informs us of the annual meeting held in New York February 21st. Among the officers we find that of George Bement of California as one of the vice-presidents.

Prof. Collier of the New York Experiment Station and Prof. Sears of the New Jersey Experiment Station were present, and stated their plans for testing the different dairy breeds, and asked the co-operation of the association in selecting representative Ayrshires for their tests. The association instructed the Executive Committee to examine and select representative Ayrshires for any station that might request it.

The association indorsed the action of the California Legislature by passing resolu-

THE NEW STATES.—Delegates to constitutional conventions in each of the proposed States of North Dakota, South Dakota, Montana and Washington, will be elected on the Tuesday after the first Monday in next May, and will meet to draft constitutions July 4th. Elections to ratify the constitutions thus agreed upon will be held on the first Tuesday in October, and when adopted it becomes the duty of the President by proclamation to admit the States formally into the Union. Each will be entitled to one member of the House of Representatives, except South Dakota, which will have two.

HORSESHOEING BY ELECTRICITY.—A novel use of electricity is about to be tested in sharpening the shoes of car horses in icy weather without removing them from the stable. This



BLACK HAMBURG GRAPEVINE, GROWING AGAINST THE PORCH POST OF A COTTAGE IN BAKERSFIELD, CAL.

its growth, which is now rapidly coming to the front in products and development. An article upon another page of this issue gives some interesting facts descriptive of the new life of Kern county, to which the reader is referred. Among the many adaptations of the region, its fitness for the production of the finest raisin grapes, and the exceptionally favorable climate for the curing of raisins, cannot be overlooked. The same is true of the growth of the finest orchard fruits for drying, the apricot, the peach, the nectarine, etc. The future fruit product of the upper San Joaquin valley will be beyond anything which is now imagined.

It is worthy of note for the information of the distant reader that grapes are not usually grown as is indicated in this picture. It is only when a vine is desired for ornamental purposes or shade, as well as for fruit, that it is allowed to take to itself such extension. Our vines are usually low pruned, and those varieties which thrive under the treatment are cut back each year almost to the short stump, so that our grapes might almost be said to be

scription of a remarkable French pear tree, which, although over three centuries old, is still bearing fine fruit in abundance: There exists in the garden of M. Mengnot, at Pollet, France, outside the town of Dieppe, *Seine-Inférieure*, an espalier pear tree, the oldest and largest that probably can be found in Europe. This is a tree of the pear *Cueillette* or *Epargne*, grafted on the free stock; it is planted against a wall eight meters high, and in a clayey soil. The stem is one meter in thickness; each lateral branch is 70 centimeters in diameter; it is 30 meters in width, and is in a southern exposure. Its growth is vigorous, and the tree bears each year from 3000 to 4000 pears. Its date of planting, written on a stone placed in the wall, was 1580, in the reign of Henry III. The property where it was found planted was formerly a hospital. This venerable tree is taken care of by the owners, so that even now a long life is assured it.

A POSTOFFICE has been established at Twin Oaks, San Diego county.

tions requesting each State to enact laws in regard to false pretenses in obtaining registration of cattle; also indorsing legislative Acts for the suppression of the manufacture and sale of oleomargarine and other forms of bogus butter. They also instructed the Executive Committee to prepare a list of approved judges of Ayrshire cattle to send to any fair association that might request it, from which they might select reliable judges for their fairs.

HAS BECOME EXTINCT.—One of Scotland's rare marshy plants, the *Scheuchzeria palustris*, a genus of the order of arrow grasses, has, according to Prof. Hillhouse, become extinct. It was to be found only on the moor of Methven in Perthshire; but some 300 or 400 black-headed gulls have settled down on this moor and annihilated every trace of vegetation.

THOS. BRASSELL of Guild Lake, Or., has 100 hives of bees. They have been busy every day this winter in gathering pollen from the willow trees.

important application of electricity is being made by the Baxter Electric Manufacturing Company of Baltimore, and is likely to prove one of the most useful applications yet made of this subtle force, and will especially commend itself to the Society for the Prevention of Cruelty to Animals.

A POSSIBLY NEW TEXTILE.—A French paper reports that from a plant called kanaff, which grows in the summer on the shores of the Caspian, M. G. Blakenbourg, a chemist, has obtained an admirable textile matter, which is soft, elastic, tough and silky, and which can be bleached chemically without losing these properties. The resistance of this new material is said to be far greater than that of hemp, while its specific weight is much less.

IN recasting the U. S. Senate committees Senator Stanford has been placed on the Committee on Education and Labor. This was done at his request, as he desires to promote his bill to aid in the development of co-operation among workmen.

AGRICULTURAL NOTES.

CALIFORNIA.

Calaveras.

TOMATOES.—*Angels Echo*, March 6: E. K. Stevenot of Carson Hill showed us several ripe tomatoes which he picked last Saturday from a vine in his garden. This is another feather in the cap of old Calaveras. Just think of it! ripe tomatoes on the 2d of March.

Fresno.

A HONEY DISTRICT.—*Fresno Expositor*, March 6: Wm. Henry of Los Gallos creek, on the West Side, was in town this morning. He was in good hopes of an excellent crop in that locality, the growing grain flourishing finely. He is located near the coal mines, on the border of Pleasant valley. That section is well watered, there being an abundance for irrigating purposes. This settlement is one of the great honey-producing sections of the State. From there was shipped last year, Mr. Henry informs us, 400 tons of honey. Nearly every settler has numerous stands of bees, our informant having 180.

FRESH GRAPES.—*Fresno Republican*, March 8: Some Flaming Tokay grapes were on exhibition at the Board of Trade rooms yesterday. They had been picked fresh from the vine; and this is March.

Kern.

PRACHES, RAISINS AND BAMBOO.—*Bakersfield Echo*, March 7: We went out to Charlie Maul's the other day to see the sights. His peach orchard is nicely trimmed and ready for the spring plowing. His raisin vineyard is looking well and will bear much fruit this year. With his peach orchard and raisin vineyard, Mr. Maul is a rich man. The peach trees are mostly five years old this spring, and for the last two years have given their owner an income of about \$400 per acre, with no other labor than was necessary in cultivating the trees and picking the fruit, as the latter was shipped East just as it came from the trees. Mr. Maul is the pioneer of Kern county in another line of business. He was the first to plant bamboo with a view to raising a material for fencing. He now has an acre set to bamboo, and although it is but a year since the roots were planted, the ground is well stocked and the growth of last year would make many thousand pickets.

THE RABBIT DRIVE last Sunday was a great success, and so was the dinner. Over 4000 rabbits were killed. Another drive will be had to-day at the same place.

Merced.

THINNING OUT JACKRABBITS.—*Merced*, March 11: A big rabbit-drive was held on the plains about five miles southwest of town to-day. People from all parts of the county assembled in carriages, on horseback and on foot. About 12 o'clock the sport commenced. Although there had been quite a heavy rain the night before, the day was warm and pleasant and the ground dry. Over 500 people engaged in the drive, and about 1000 rabbits were killed in the corral and round up.

Nevada.

IRRIGATION PROJECT.—*Grass Valley Tidings*, March 9: Some 70 farmers and land-owners, with a sprinkling of miners, met at Webster's hall this afternoon to take steps looking to the construction of a large irrigation ditch from the South Yuba canal down over Kress' Summit, through Allison ranch and Forest Springs to Magnolia district. Ben Taylor presided and M. J. Higgins acted as secretary. A motion to appoint a committee, consisting of two from each school district considered in the project, to interview the water company, was carried. The committee was authorized to induce the water company to make a preliminary survey of the route to be traversed; this done, the committee is to circulate an agreement among the owners of the land crossed, binding them to grant the right of way or to name their price for said grant. Another general meeting is then to be called by the committee and the reports submitted for consideration.... Over 40,000 acres of land, including Chicago Park, two-thirds of which is arable, may be irrigated by the proposed ditch. Power for a dozen mines will be provided. The main ditch will be from five to nine miles in length. All in all, the project is the most important ever broached in Nevada country.

Placer.

HORTICULTURAL ITEMS.—*Auburn Republican*, March 6: The trees at the orchard of the Auburn Orange Co. are looking splendidly. There are about 27 acres of orange trees planted there now, besides a large number in the nursery, and they are all making a remarkable growth. Down at Rattlesnake Bar, Robert Hector has 1000 young orange trees a year old which look just as fine, and he is planting more this season. His cherry trees are blossoming out, and he says there is every indication of a big cherry crop. A little farther down the river at Horseshoe Bar, J. W. Smyth has one of the prettiest places to be seen in the foothills. The results of thorough work and neatness are very evident on Mr. Smyth's place. The beautifully kept grass plats and flowers, the shrubbery and large orange trees in front of the house, are all as trim and neat as the best of gardeners could make them, and arbored seats on the bluff overlooking the river make the place delightful. Mr. Smyth has a large

number of cherry-plum trees which have been in full bloom for a week, and their great masses of white blossoms make a wonderfully pretty picture. The belt along the river appears to be the best of all places for that particular fruit, which there ripens earlier and comes to greater perfection than elsewhere. Mr. Smyth's cherry orchard is also in fine condition, and he expects to have a good many boxes on the market before May.

San Benito.

HOLLISTER HORSE MARKET.—*Free Lance*, March 8: Sixty-five horses were registered in the horse market last Saturday. Few buyers were in attendance, owing to the fact that the San Francisco market is overstocked with horses of all descriptions. However, 18 horses were sold during the day, principally to buyers from San Francisco, San Jose and Santa Cruz. The prices obtained averaged \$125 each.

San Diego.

SELECT SPECIMENS.—*San Diego Union*, Feb. 28: The excellent work being done by the Chamber of Commerce is fully appreciated by the strangers now in this city. More than 2000 have inspected the exhibit during the present month, notwithstanding several days' rain last week. Last Saturday the number of visitors was 225. The display is constantly changing in its varied features. Yesterday Maj. Levi Chase brought in from his place in the Cajon a number of large branches of delicious oranges, one spray of three oranges weighing four pounds, and all being proportionately large. His collection includes mandarin, Navel, blood and seedling oranges, and mammoth Lisbon lemons. This fruit from Maj. Chase's is the first produced by irrigation from the San Diego flume. J. C. Jackson of Tia Juana enriched the exhibit yesterday by a 51-pound beet, and a family of seven squashes from one vine, weighing nearly half a ton—a pretty good growth for one squash seed. Mrs. M. A. Stiles has just sent in from Spring valley a fine collection of Navel and Mediterranean oranges, limes and Lisbon lemons. Among the smaller additions to the exhibit during the past few days are some fine tomatoes, raised by C. R. Trussell of Tia Juana, and a pear tree showing one year's growth from F. W. Shultz of Japatal. J. H. Tibbals of this city contributes fine tomatoes, and C. W. Withrow, also of this city, specimens of cassia. T. Mings of Linda Vista sends green peas, which are not a novelty at this season except to strangers. Jos. Lester of Fallbrook sends a fine sample of green beardless barley, showing mammoth growth, while Pete, the blacksmith, has sent a fine specimen of growing oats. Sin Sen, a Mission valley Chinaman, contributed two enormous heads of cauliflower. He is not the only Chinaman who has taken interest enough in the development of the county and in the success of the exhibit to let the world know what he is doing.... A fine specimen of cirio, one of the curios of plant life, gathered by Mr. Turrill in Lower California, is growing finely, notwithstanding it has been out of the ground since a year ago last November.

THE "BACK COUNTRY" THRIVING.—*San Diego Union*, March 7: During the past year thousands have settled in the valleys back and to the northward of San Diego, and the acreage under cultivation is four or five times larger than it was last year. W. J. Riffenberg returned Wednesday from a visit through the Cajon and reports fully 5000 acres in the Cajon, and more than that number of acres have been broken between this city and that beautiful valley. The farmers have been breaking ground rapidly and besides putting in grain, have been planting large orchards and vineyards.... In the Ferris valley large orchards of orange, as well as large vineyards, have been planted this year, and it will not be behind the rest of the county in furnishing the supply of the soil. A trip up the Sweetwater valley will show an immense amount of newly cleared and newly broken ground. From Tia Juana and the Otay mesa come further encouraging reports, and from all sections the word is sent in of great advancement during the past year.

Santa Barbara.

EDITORS PRESS:—The prospect is good for more rain. Thunder yesterday, thunder to-day. Our late rain of 1½ inches was of great service; still it will require considerable more to make very good crops. Crops look well on land that was properly cultivated soon after the first rains. The safest plan is to plow as soon as it rains; if after rains render the plowing almost useless, the labor only is lost and not the crops; plowing can be done again and crops raised every year.—S. P. SNOW, *Santa Barbara*, March 6th.

Santa Clara.

EDITORS PRESS:—We are having very pleasant weather and the country presents a beautiful appearance with its fields of green and its almond orchards in full bloom. The apricot trees are blossoming very fast and promise a large yield. The roads are in fine condition, the late rain having laid what little dust there was, and left them as hard and smooth as a floor. Santa Clara county has as good roads as any in the State—which makes wheeling a pleasure.—GEO. W. GARDNER, *San Jose*, March 5th.

FAIR DATE CHANGED.—*Mercury*, March 10: At a meeting of the Santa Clara Valley Agricultural Society yesterday afternoon, at the office of Montgomery, Rea & Co., the time of holding the fall fair was changed from Sept.

30th to Oct. 5th, which will be after the Stockton fair. The dates first decided upon were Sept. 2d to 7th.

Shasta.

HYDRAULICKERS ENJOINED.—*Redding Democrat*, March 6: Last Friday papers were served on the owners of the Hardscrabble mine, on North Fork of Cottonwood, and the Drew mine, on Roaring river, all hydraulic mines, temporarily enjoining the operations of those mines. We understand that the injunctions are all made on one complaint, at the instigation of farmers on Cottonwood creek, who allege that their farms are seriously injured by the deposit of debris in the stream washed from those mines. The cases will come up for hearing in the U. S. Circuit Court in S. F. on or about the first of April next, when the complainants will move to have hydraulic mining in those mines permanently enjoined. It is admitted that the years of washing debris into Cottonwood creek has filled the bed of that stream to a considerable extent, causing overflow during freshets and deposit of sediment on rich bottom lands.

IRRIGATION DITCH.—W. D. Nicholson finished the survey some days ago of the irrigation ditch for John Hunting, taking the water from Cow creek, just on the outskirts of Millville, and following the east side of the valley as far south as A. B. Stevens' farm. Mr. Hunting purchased on Cow creek last fall for the purpose of raising alfalfa for stock-feeding, and is making preparations for the water which will cover all his bottom land. Continued, the ditch will water every foot of bottom land on the east side below Mr. Hunting's. Being excellent, rich soil, among the best in the county, the land covered by the ditch will become trebly valuable.

MISCELLANY.—*Anderson Enterprise*, March 7: Grain in Happy Valley is looking as well as on the Sacramento bottom lands, and those there who are fortunate enough to have in a few acres feel jubilant over the outlook.... Peter Smith has greatly improved his farm in Happy Valley by adding several acres more of fine fruit trees and fencing a considerable portion of the land rabbit-tight.... W. D. Nicholson has planted three rows of black walnut trees, reaching from his residence to the east end of Ferry street.... The Shasta County Stock Fruit Co.'s orchard now contains a little more than 13,000 trees of different varieties. Seven thousand of these were planted this spring. Stephen Friebe, who is managing this farm, says that less than one per cent of the 6000 trees planted last spring were lost. This orchard now contains 190 acres, 69 trees to the acre.

Solano.

A BOLD COYOTE.—*Vacaville Reporter*, March 7: Tuesday morning a large coyote attacked one of Henry Peters' men in his vineyard above town. The man beat the animal off with a shovel, and by a fortunate stroke killed it before any injury was inflicted upon him.

Sonoma.

CITRUS FRUITS.—*Index-Tribune*: Sonoma valley is coming into prominence as a producer of oranges and lemons. At present this valley is supplying the markets of Santa Rosa and Petaluma, while S. F. dealers stand ready and willing to take what is left. The most noted orange and lemon groves in this section are those of C. C. Carriger, Gen. Vallejo and Col. G. F. Hooper. The last-named gentleman has laid on our table some exceptionally fine samples of this fruit grown on his farm near Sonoma. One variety of orange, of palatable flavor, neither too sweet nor too tart, is quite small, but owing to its very thin skin is almost as large after peeling as the largest of the thick-skinned. [Specimens of this orange, given us at our recent visit, resembled the Paper-Rind St. Michael outwardly, but gave internal evidence of being the product of a seedling tree.—EDS. PRESS]

POULTRY AT CLOVERDALE.—*Reveille*, March 9: We paid a visit to the Cloverdale poultry-yards on Wednesday last, and were really edified on the subject of "hen culture." The proprietor, W. B. Taylor, starting two years ago with a trio of White Leghorns as an experiment, succeeded so well that last season he added to his outfit other breeds until he has now five yards of fine poultry. The first pen shown us were Black Leghorns, most beautiful fowl, and the eggs were as large if not larger than eggs obtained from the large Asiatic breeds, and we were assured that they are very hardy and easily raised. Pen No. 2 is a flock of large half-breed Wyandottes from selected fowls, mated to a fine cockerel of the same breed, and for size and beauty of plumage (mostly a golden tint) we can safely say that nothing finer can be found in this section. Nothing is claimed for this pen, more than size, egg-producing qualities and a strain of one of the most popular breeds in the country. In Pen 3 we found (had it not been for what was yet in store for us) as pretty a lot of fowls as our eyes ever gazed upon—White Leghorns. Pen 4 was a revelation. We had often read of Silver-Laced Wyandottes, but had never before seen a flock of them together. Their uniform plumage—dark, with silver penciling, so evenly laced that each hen seemed to be a duplicate of the other, certainly presented to our eye the acme of perfection. They are good layers of rich yellow eggs, and judging from their great popularity among fanciers, are the best "general purpose" breed in the market. No. 5 is a pen of mixed poultry, White and

Brown Leghorns predominating, presided over and thoroughly looked after by a Rose-Comb White Leghorn obtained from the East last season. These, as well as the second pen described, are not thoroughbreds, but crosses made for best results.

Tulare.

HARE SLAUGHTER.—*Traver Advocate*, March 2: The jackrabbits which make this vicinity their rendezvous have been having a hard time of late. Last week about 7500 met their doom. The results of the drives on different days last week were as follows, as near as can be estimated: Sunday, 1000; Tuesday, 2700; Friday, 800; Saturday, 3000. Most of these were caught at the drives west of Traver. This week the seat of war has been changed to the east side of the railroad track, and a big drive was made on Tuesday to a corral located near Mr. Vannoy's place. The farmers east of here have banded together and purchased about a mile of wire netting, the height of the netting for the wings being 2½ feet and of the corral six feet. Several drives were given this week and another big one takes place to-day. When it is considered that besides the 7500 a week being killed in this vicinity every third rabbit is with young, the great good done by these drives can be realized.

MORE HONEY.—*Tulare Register*, March 8: J. F. Faust is going into the bee business rather extensively. He has now 120 stands, and will establish his apiary at or near the farm of J. W. Shaklee. Mr. Faust has been looking through the Lucerne valley for an opportunity to purchase bees, and succeeded in finding a number of hives. He says the market for honey is quite good and the business is one that is very suitable to him at his time of life, as it does not require active labor.

Ventura.

VENTURA JOTTINGS.—*Free Press*, March 8: There are on exhibition at the office of E. S. Hall two white Belgian carrots raised on the place of Mr. Morrison, on the avenue, one of which weighs 14 and the other 1½ pounds. The larger one measures 24½ inches around at the crown and is now 23½ inches in length, and a portion of it is still in the ground.... Jim Evans has a Poland-China hog which weighs 900 pounds, and is still growing.... An artesian well has just been completed at Simiopolis, on the Simi rancho, which is only 85 feet deep and produces a flow of water which will rise 15 feet above the surface in a seven-inch tube. It now rises six or seven inches above the casing and flows in a strong stream.

Yuba.

MOUNTAIN RANCHES.—*K. J. Russom in Appeal*: We are at 2800 feet altitude, on the southeast slope of the north fork of the Yuba river, and as we have fig trees bearing, orange and pomegranate trees growing nicely, I feel that we are in the citrus belt. As we are just inside the snow belt we have a little winter, just enough to be pleasant, and are much cooler in summer than lower down. Water is pure and cold during the hottest days of July or August. The lowest temperature during the winter months is about 19°. We raise apples and peaches in abundance; berries of all kinds, and grapes as fine as can be found in the State. We picked blackberries and raspberries in January, and have strawberries now in bloom, vegetables growing nicely in the garden, and roses bloom every month in the year. This part of the county is little known, but it is settling up, there being quite a number of locations within the last 12 months. There are a great many acres of vacant land in the mountains, where a free water right could be obtained by settlers. We raise fine wheat, oats and barley without irrigating, and alfalfa with very little water. All that is necessary to open up a fine fruit and agricultural country is an outlet for our productions.

SHADE-TREES FREE.—J. T. Bogue, the nurseryman, has noticed that many of the yards surrounding the schoolhouses in Sutter county are not ornamented with trees in and around the children's playgrounds, and he therefore proposes to furnish without cost to every school district in Sutter county the following young trees: 50 black walnut, 2 black fig and 2 Monterey cypress. The only condition attached to this offer is that the trustees of each district must agree to plant them at once, after properly preparing the ground, and thereafter care for them. He also says that to every church in Sutter county he will present the same number of trees on the same conditions. The trees are now ready for delivery to the trustees.

ARIZONA.

FROM THE RANGES.—*Prescott Hoof and Horn*, March 7: Mitchell Burch and D. W. Strahan, leading cattlemen of the Mogollons, were in the city on Tuesday. They say that a great number of beef cattle will be shipped from the Verde this spring. Cattle have wintered unusually well, there being no loss whatever in that locality. The condition of the range, Mr. Burch says, is excellent, and the new grass will soon be in abundance to brace up the few old and weak cattle which always suffer more or less at this season of the year.... W. G. Shook of Juniper says grass is a little short in the vicinity of Walnut Creek, but believes cattle have held their own, and anticipates no appreciable losses. He states that there have been large sales of cattle from his locality.

McAFEE & BALDWIN,

REAL ESTATE AGENTS AND AUCTIONEERS,

10 MONTGOMERY STREET, SAN FRANCISCO.

AT AUCTION!

THURSDAY, FRIDAY AND SATURDAY,

MARCH 21st, 22d AND 23d, 1889, AT 2:30 P. M.

BY ORDER OF J. B. HAGGIN, ESO.

We will sell peremptorily, without limit or reserve, on THURSDAY, FRIDAY and SATURDAY, MARCH 21st, 22d and 23d, 1889, at the hour named, in the city of

BAKERSFIELD,

KERN COUNTY, CAL.

IN SUBDIVISIONS OF 10, 20, AND 40 ACRES EACH, ABOUT
7000 ACRES

OF FRUIT, VEGETABLE AND ALFALFA LAND, WITHIN ONE TO SEVEN MILES FROM BAKERSFIELD, BEING PORTION OF THE

HOP RANCH, COTTON RANCH, JEWETT RANCH,
AND OTHER RANCHES,

ALSO, CHOICE RESIDENCE AND BUSINESS SITES IN BAKERSFIELD.

This is the initial offering, and the commencement of the subdivision of the large possessions of Mr. J. B. HAGGIN, in Kern County. The property embraced in it includes some of the finest lands in the county, as all well-informed residents of BAKERSFIELD will testify. About 2500 acres of the land offered is in alfalfa, and can be rented or otherwise utilized to yield a large income and a high percentage upon a valuation of from \$150 to \$200 per acre. Other portions of the offering are used for vegetable and garden purposes, while the balance is composed of land rich and fertile, awaiting only the industrious settler to demonstrate its great adaptability to fruits and the products of this wonderfully prolific soil. A large portion of these lands lie along and adjacent to UNION AVENUE, which as at present dedicated extends from Kern river south through BAKERSFIELD, a distance of ten miles, and which is one hundred and fifteen and one-half feet in width. The other tracts are reached by excellent county roads leading direct to BAKERSFIELD.

WATER FOR IRRIGATION.

The lands to be sold are amply supplied with water for irrigation, from the Kern Island Canal, at rates now the lowest in the State, and fixed and regulated by the County Board of Supervisors.

UNUSUALLY LIBERAL TERMS.

TERMS OF SALE: Only one-fourth Cash. Balance in 1, 2, and 3 years, with interest at the rate of seven per cent per annum. TITLE PERFECT.

SPECIAL EXCURSIONS.

To enable all to participate in this important event, we have made arrangements with the Railroad Company by which we are enabled to offer special round-trip rates from all points to BAKERSFIELD, between SAN FRANCISCO, SACRAMENTO, SAN JOSE, STOCKTON and LOS ANGELES, as follows: SAN FRANCISCO, SACRAMENTO, STOCKTON, SAN JOSE, and all intermediate points, to Bakersfield and return,

\$9.50 ROUND TRIP TICKETS ONLY **\$9.50**



\$9.50 ROUND TRIP TICKETS ONLY **\$9.50**

AND CORRESPONDING RATES FROM ALL POINTS BETWEEN LATHROP AND BAKERSFIELD.

From Los Angeles to Bakersfield **\$5.50** ROUND TRIP TICKETS ONLY **\$5.50**

And corresponding rates from all points between Los Angeles and Bakersfield.

TIME TABLE.

Tickets will be good on trains leaving San Francisco March 20th and 21st, at nine o'clock P. M. and on March 21st, at half-past eight o'clock A. M., and on trains from Sacramento, Stockton and San Jose connecting therewith; and from Los Angeles on train leaving March 20th, at half-past ten o'clock P. M.
RETURNING, tickets will be good on all regular trains, leaving Bakersfield March 22d, 23d, 24th and 25th, 1889.

GRAND BARBECUE.

Vehicles will be at hand to convey excursionists over the property to be sold, starting at half-past ten o'clock A. M. of each day. On Thursday, March 21st, there will be a Grand Barbecue, at about one o'clock P. M., in the Grove at Bakersfield, to which all will be welcome. Railroad Tickets will be on sale at the offices of the Company, and at the office of McAFEE & BALDWIN, 10 Montgomery street, San Francisco, where sleeping-car accommodations can also be arranged for. Maps and diagrams will be ready for distribution in due time. For further particulars, apply to

McAFEE & BALDWIN, REAL ESTATE AGENTS and AUCTIONEERS,
10 MONTGOMERY ST., SAN FRANCISCO.

NEWHALL'S SONS & CO., Auctioneers,
225, 227 Bush Street, San Francisco.

AND TO THE

LAND DEPARTMENT OF J. B. HAGGIN,
L. C. McAFEE, C. BROWER, Managers,
Bakersfield, Kern County, Cal.

Bakersfield and Kern County Attractions.

A Desert Converted Into Fruitful Farms by Irrigation.

[By R. M. E.]

Many eyes are now turned to Kern county, in the extreme southern portion of the San Joaquin valley, the southern part of Central California, where 1,250,000 acres of fertile land await the settler. For years the development of this splendid county has been checked because the parties holding the land would not sell. Now the fiat has gone forth to put the property on the market, and colonists are rushing in to get the lands before they are all purchased. A fine system of irrigating ditches is supplied from Kern, Buena Vista, Tulare and Goose lakes. In addition to these abundant sources of water supply, artesian water is obtained at a depth of about 200 feet, and it is so plentiful that one well waters a section of land, while, if stored in reservoirs, it will cover 3500 acres, as the average flow of a dozen wells for 24 hours was over 1,000,000 gallons each, and since the temperature of these wells is 71° F., they are invaluable for winter irrigation. The highest mountain in the United States, Mt. Whitney, 15,056 feet, together with other lofty peaks, sheds its melting snows into the Kern valley, but the waters of the Kern river alone are capable of irrigating all the valley, if properly stored and preserved. The cost of irrigating in Kern is from two to ten cents per acre, and there are more than 30 canals to furnish the water.

Progress.

Formerly this land was regarded as malarial, but since the irrigating ditches have liberated the stagnant pools of the swamps and sloughs and the people have substituted artesian for surface water, the malaria is said to have disappeared. About 15 years ago, outside of Bakersfield, the county seat, there were not a dozen families and the valley was considered barren, but this land was waiting for water. The debris of the mountains contains the elements of tree and plant life, and water transforms it like the touch of a fairy's wand. The mountains in that vicinity are composed of friable granite constantly disintegrating, and the river flows over gypsum beds which are worn away and deposited on the sands. The total value of all county property last year was \$8,990,521, or a gain in one year of \$2,649,582.

Products.

Alfalfa is the staple crop. The rich fields of this valuable forage plant yield from eight to ten tons per acre annually, besides furnishing some pasturage. Wheat and barley thrive. The products of this county include cotton and sweet potatoes, melons and delicious fruits of which the grapes in our cut on page 249 of this issue are a fair sample. This is a mammoth variety of the Black Hamburg and is taken from a photograph of a vine in Bakersfield, whose immense clusters give but an imperfect idea of the fertility of this region. Corn, planted in rotation with wheat or barley, and as late as July, yields 60 bushels to the acre, but if planted in April, twice that quantity. Here are grown citrus, nut-bearing and deciduous fruits. When six years old the pecan bears in Kern, which is something remarkable, oranges flourish and it is an Eden for flowers, over 200 varieties of the rose alone being grown there. Chestnuts, prunes, quinces, small fruits, pomegranates, apples, pears, apricots, plums, nectarines, walnuts, butternuts, mulberries, figs, persimmons and olives, together with grain and vegetables, afford a variety of foods to the settler, while an abundance of forest trees provide a cheap fuel. Dairying is an important industry and the county is regarded as one of the best for poultry, the products being rapidly disposed of in San Francisco and Los Angeles. The alluvial soil with a sprinkling of alkali is excellent for beets. Mangel-wurzel on the Lakeside ranch stood 2½ feet above ground and averaged one ton in weight to 100.

The Chief Town.

In Bakersfield with five hotels and three churches, six general stores, ten fraternal societies, with an assurance of a Grange of the P. of H., which will make eleven, four dry-goods stores, four variety, two book stores, etc., etc. One hotel, the Southern, will cost \$1,000,000; the Masonic temple cost \$30,000; water-works and a first-class fire department make this an attractive residence spot. Sumner, connected by a car line with business center, only one-half mile distant, may be reckoned as virtually the same town. Delano, 32 miles west, on the S. P. R. R., and about the same distance from Tulare, has a good future. Other stations and settlements offer special advantages, but we lack the space to describe them. Suffice it to say there are 39 school districts, and the examinations are so rigorous that only about 20 per cent of the teachers can pass and obtain their certificates. In addition to the above-named advantages, this county is notably rich in gold and silver, copper, fire-brick clay, limestone, marble, petroleum, building and lithographic stones, and evidences have been found of the existence of iron, coal and quicksilver.

A HANDY TREE-PROTECTOR.—One great recommendation of the Excelsior fruit-tree protector is the rapidity with which it can be fitted and secured to the tree. See Bonestell & Co.'s advertisement, with cut, on another page of this paper.

Vacaville Letter.

EDITORS PRESS:—We have had rain by spells for the last four days and it is still showering. Over one inch of water has fallen. Everything green is growing fast. The weather is quite warm, the mercury standing at 62° to-day.

In some of the cherry orchards where the yield has been light the past three years the owners have placed a lot of bees, hoping that they will fertilize the blossoms and help produce a crop.

Last Friday night it rained half an inch, with thunder and lightning. A party of boys who went fishing to Cache slough, 20 miles east of Vacaville, were very much pitted on account of being out in the rain; but they say it did not rain at all there, though it was raining there yesterday. The boys caught 300 catfish, which we country folks consider very good eating, as we seldom see any other kind.

The grain on the plains between Elmira and Cache slough is said to be very good. Nearly everybody here is doing pruning and many have their orchards plowed.

The prospect for large profits on the next fruit crop is not very bright. Those who ought to be best able to guess what the prices will be are very loth to risk an opinion. It will depend mostly on the fruit crop East; a large crop there means small profits to the California fruit-grower after he pays the railroad charges.

Several parties here have been painting their trees with turpentine to kill the scale. This is a dead shot on the scale, none being found alive on the trees one day after they were painted. It might be as well to mention that the turpentine is about as sure to kill the trees as the bugs.

Vacaville, March 11, 1889

FRAUDULENT LAND SCHIMES.—Referring to the victims of certain real-estate frauds, the Fresno Republican says: There is a State Board of Trade in San Francisco that is in direct communication with the county boards of trade all over the State, and all home-seekers have to do is to call there and express a desire for information concerning any of the various sections of country and it will be cheerfully furnished them. Besides, there are numberless real-estate agencies of known reputation where strangers can buy with perfect safety. Every safeguard possible has been thrown around the home-seeker coming to California, but there are some people who will climb over a fence 20 feet high, swim a rapid creek and walk a mile through a bog in order to get into the clutches of a swindler.

TREATMENT OF THE MYSTERIOUS VINE DISEASE.—It is an interesting fact that those now engaged in investigating the mysterious vine disease at San Gabriel are making a very large application of the Ongerth insecticide powder. We hear that the experiments being made by Prof. Dowlen, under the supervision of J. De Barth Shorb, have led to a tentative conclusion very flattering to the efficacy of the powder, and that 15,000 pounds of the powder have just been shipped to San Gabriel on orders, for the purpose of making a wide application. Surely the presumption is strongly in favor of a material when so large an order is made for it.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

A. F. JEWETT—Tulare Co.
F. B. LOGAN—Southern California.
H. G. PARSONS—Southern California.
G. WILSON—Sacramento Co.
J. C. HOAG—San Francisco.
CHAS. F. BLACKBURN—Idaho.
FRANK S. CHAPIN—Colusa Co.
MRS. C. J. STEPHENS—Sierra Co.
R. G. HUSTON—Montana.
E. H. SCHARFFLE—Calaveras and Tuolumne Cos.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, term of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

RAPID GROWTH.—P. H. Murphy, the well-known Perkins, Sacramento Co. breeder, writes us that he has sold two of the Shorthorn bulls he advertised in the Rural, and therefore reduces the number of animals in his advertisement. One of the bulls, after walking six miles, weighed 1785 pounds, and as his age is 28 months and three days, his average daily gain has been more than two pounds—all without extra feeding. Mr. Murphy wants to know what other breed of cattle can make so good a showing.

IN SOUTHERN HUMBOLDT, a correspondent says, the sentiment is crystallizing in favor of dividing large stock ranches and selling the lands to small farmers, gardeners and fruit-growers.

THE Los Gatos Cannery packed over 50,000 cases of fruit last year. The company is making arrangements to put up more than that the coming season.

WELLS, RICHARDSON & Co's

IMPROVED Butter Color.

EXCELS IN STRENGTH PURITY BRIGHTNESS

Always gives a bright natural color, never turns rancid. Will not color the Buttermilk. Used by thousands of the best Creameries and Dairies. Do not allow your dealer to convince you that some other kind is just as good. Tell him the BEST is what you want, and you must have Wells, Richardson & Co's Improved Butter Color. Three sizes, 25c, 50c, \$1.00. For sale everywhere. WELLS, RICHARDSON & CO. Burlington, Vt.

CHICKERING PIANOS, CONOVER BROS. PIANOS, F. W. SPENCER & CO.,

SOLE AGENTS,

723 Market Street, History Building, SAN FRANCISCO, CAL.

Orders for EVERYTHING IN THE MUSIC LINE promptly attended to.

DECKER BROTHERS' PIANOS.

KOHLER & CHASE, Agents, 137 POST STREET, S. F.



LYMAN'S NEW WIND-GAUGE SIGHT. Send for Catalogue of Sights and Rifles. Address WM. LYMAN, Middlefield, Conn.

LARGEST STOCK OF

SADDLERY AND HARNESS

On the Pacific Coast. Wholesale and Retail.

Send order and try goods and prices.

C. L. HASKELL, No. 10 Bush St., S. F.

SEASON OF 1888-89.

SUPERPHOSPHATE FERTILIZER!

SPECIAL GRADE

—FOR—

TREES AND VINES.

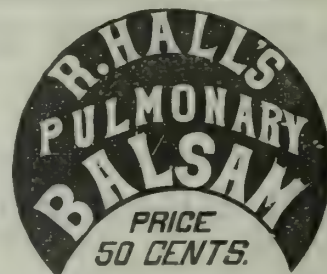
THE PERFECTION OF FERTILIZERS.

THE MEXICAN PHOSPHATE & SULPHUR CO.

Offer to the Viticulturists for this season a Special Grade of Fertilizer best suited to the growth and production of Fruit Trees and Vines, of a guaranteed analysis of 14½ per cent Phosphoric Acid, 6 per cent Ammonia and 7.4 per cent Sulphate of Potash.

We offer Liberal Terms to responsible parties. FOR SALE BY

H. M. NEWHALL & CO., 309 & 311 Sansome St., S. F.



For Coughs, Colds, Croup, Asthma, Bronchitis, Influenza, Loss of Voice, Incipient Consumption, and all Throat and Lung Troubles. J. R. GATES & CO., Proprietors 417 Sansome St., San Francisco.

Sewing Machines.

Happy Families are Happy Because

—THEY USE—

THE } NEW HOME { LIGHT
POPULAR } SEWING MACHINE. { RUNNING

One Million Sold. Second Million rapidly selling. All Beauties. Get one before you spend all your money foolishly. HEADQUARTERS: 725 Market Street, San Francisco.



THE WHITE IS KING OF ALL

Sewing Machines.

Simple in Construction, Light Running, Most Durable and Complete. Visitors always welcome.

WHITE SEWING MACHINE CO. 108 & 110 POST ST., S. F.

IT STANDS AT THE HEAD!

"DOMESTIC"

DO NOT FAIL to SEE THE "DOMESTIC" Before Buying a Sewing Machine.

It is the leader in practical progress. Send for price list J. W. EVANS, 29 Post St., S. F.



\$5 TO \$10 A DAY.

AGENTS WANTED! CIRCULARS FREE. 1000 Brewster's Safety Rein Holders GIVEN AWAY to introduce them. Every horse owner buys from 1 to 6. Lines never under horses' feet. Send 25 cents in stamps to pay postage and packing for Nickel Plated Sample that sells for 65 cents. BREWSTER MFG CO., HOLLY, MICH.

SELF-PLAYING ORGAN.

An Automatic Organ Combined with an Ordinary Five-Octave Organ.

NO TEACHER OR PRACTICE NECESSARY. ANYBODY CAN PLAY the latest and most difficult music of every class. Every home should have one. Send for descriptive circulars, prices and terms to KOHLER & CHASE, 137 & 139 Post St., Dealers in all kinds of Musical Goods.

WANTED.

A man to work in the NURSERY. One thoroughly understanding budding and grafting. Inquire of R. E. FARRINGTON, Phoenix, A. T.



Send stamp for 100-page ILLUSTRATED CATALOGUE of

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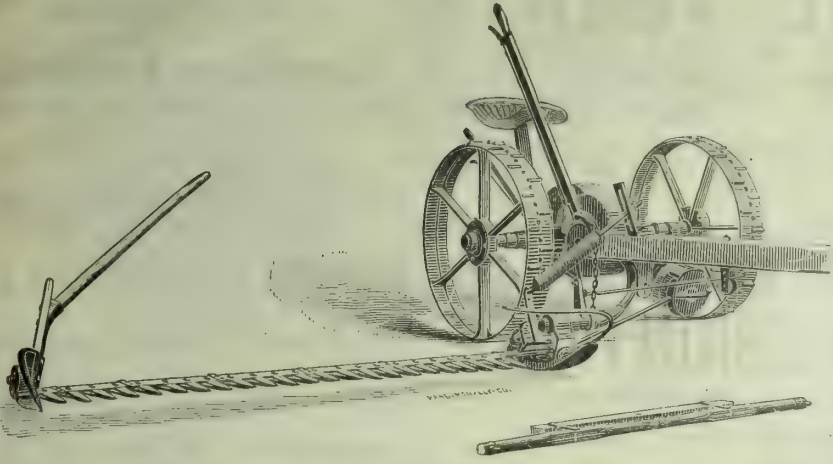
Guns, Pistols, Cartridges, Air Guns, Hunting Coats, Leggings, Loading Implements, Base Ball Goods, Lawn Tennis, Boxing, Fencing and Gymnasium Goods, Hammocks, etc.

Fine Gun work done by first-class smiths.

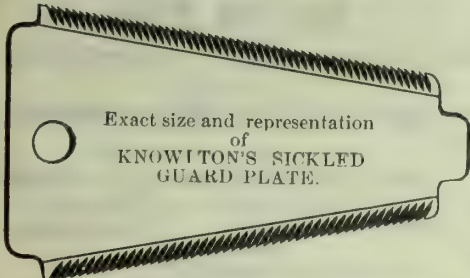
GEO. W. SHREVE,

525 Kearny Street, San Francisco, Cal.

KNOWLTON'S Front Cut Floating Bar Mower.



WIDE-CUT MOWERS, WITH KNOWLTON'S BAR CARRYING SPRING.



Exact size and representation
of
KNOWLTON'S SICKLED
GUARD PLATE.

THE SPRING carrying the weight of the bar on the Drive Wheels gives great cutting power without side-draft, and making the draft of the 5 ft., 6 ft. and 7-ft. Mowers but a trifle more than other makes, cutting but 4 ft. 3 in.

THE ONLY MOWER with Sickles E'ge Guard Plates (secured to us by patents).

THE ONLY GUARD that sharpens itself by use.

THE ONLY GUARD preventing the grass from slipping forward when the section strikes it.

THE ONLY WIDE MOWER having no weight on horses' neck under any circumstances.

THESE MOWERS ARE BUILT EXACTLY THE SAME as those sold by us in 1887 and 1888. We have a full line of all sizes, 4 ft. 3 in., 4 ft. 6 in., 5 ft., 6 ft. and 7-ft. cut.

ALSO A FULL LINE OF REPAIRS.

PLANO RUSTLER MOWERS, 4 ft. 3 in. and 5-ft. Cut.

PLANO BINDERS, 5 ft. 6 in. and 6 ft. 6 in Cut.

BUCKEYE SULKY HAY RAKES,

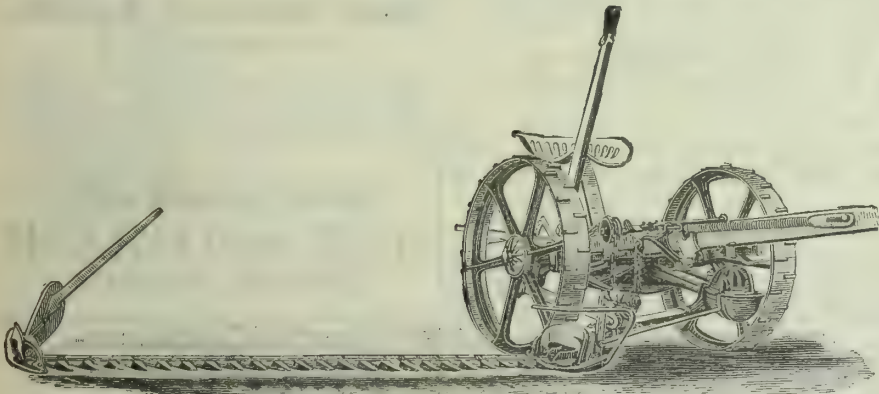
BOSS SICKLE GRINDERS, Etc.

SEND FOR CATALOGUE GIVING DESCRIPTION AND PRICES.

P. P. MAST & CO.

31 Market Street, San Francisco.

THE STANDARD MOWER



4½, 5, 6 and 7 feet Cut.

Our Wide-Cut Mowers are guaranteed to be as LIGHT DRAFT as any ordinary narrow-cut Mower; to be FREE FROM SIDE-DRAFT; more easily handled by the driver, and with the same man and team one of them will do nearly as much work in a day as can be done with two ordinary narrow-cut machines.

SEND FOR CIRCULAR.

STANTON, THOMPSON & CO., Farmers' Union,
SACRAMENTO, CAL., SAN JOSE, CAL.,
Agents for California.

THE GIANT POWDER COMPANY.

PATENT OWNERS OF

NOBEL'S DYNAMITE,
NOBEL'S EXPLOSIVE GELATINE,
NOBEL'S GELATINE-DYNAMITE,
Best and Strongest Explosives in the World.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.

BANDMANN, NIELSEN & CO, General Agents, San Francisco.

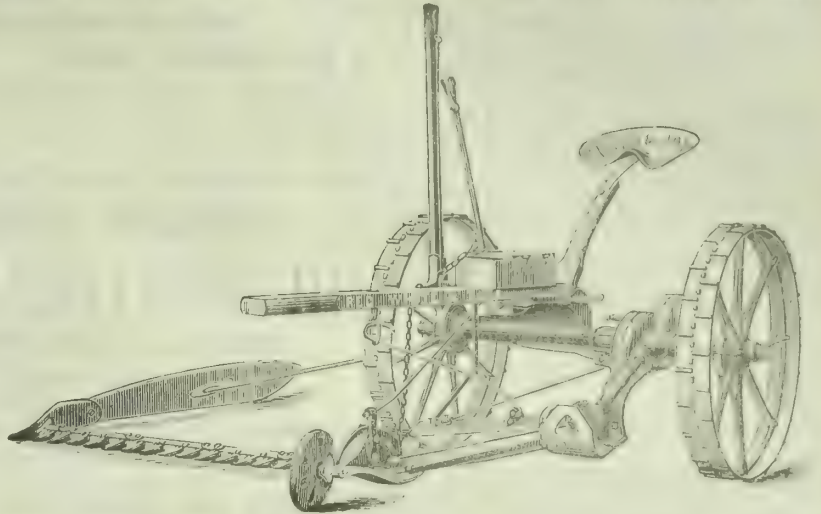
DEWEY & CO. { 220 MARKET ST. S. F. } PATENT AGENTS.
Elevator, 12 Front.

JUDSON POWDER,

The Only Reliable and Efficient Powder
For Stump and Bank Blasting. From 5 to 20
pounds blows any Stump, Tree or Root clear
out of ground at less cost than grubbing.
Railroaders and Farmers use no other.

FIRST GUN FOR 1889.

RED, WHITE and BLUE MOWER.



Manufactured Specially for the Pacific Coast.

THE BEST MOWER IN THE WORLD.

ADVANTAGES:

Gearing Covered from Dust.

Brass Boxes for Bearings.

Floating and Rocking Cutter-Bar.

Light and Direct Draft.

Steel Plate on Shoe under Scythe Head.

Cutter-Bar Carried on Wheels.

Steel Used Largely in Place of Iron.

Frame for Pole and Seat independent of gear frame, making it very easy on horses and driver. No jar or vibration on seat or pole. Wheels are high and have wide face—it has wide tread, the draft is direct from frame and does not pull down on pole or lift the wheels from the ground, thereby giving great cutting power, and at same time very light weight and draft. Scythe works against adjustable steel holders and does not wear on the cutter-bar—a great advantage over others.

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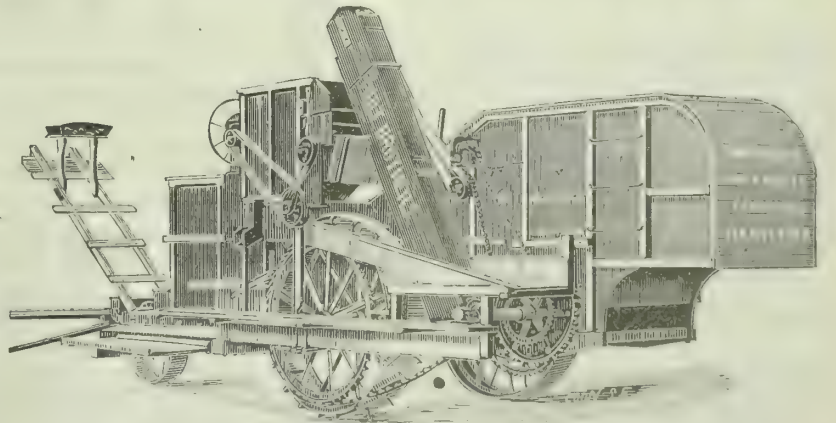
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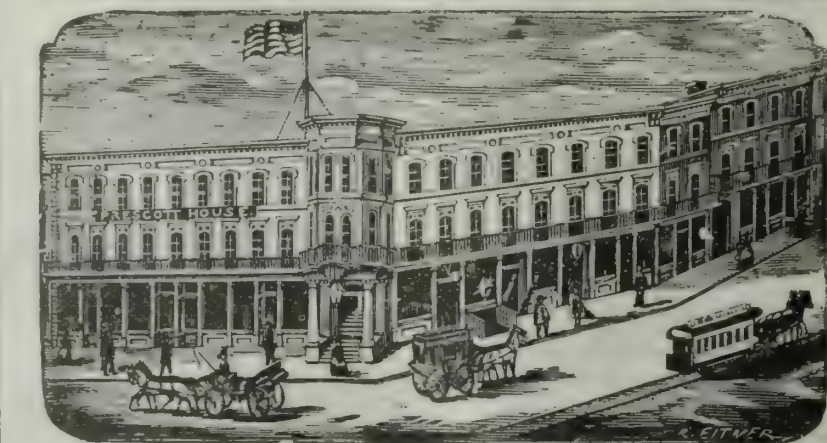
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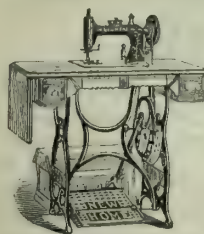
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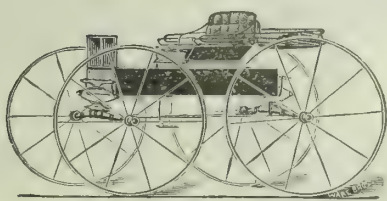
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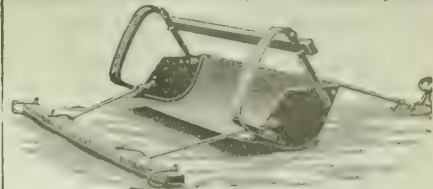
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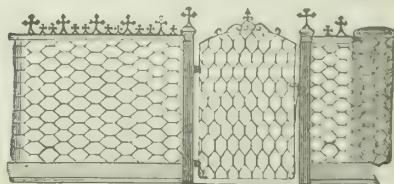
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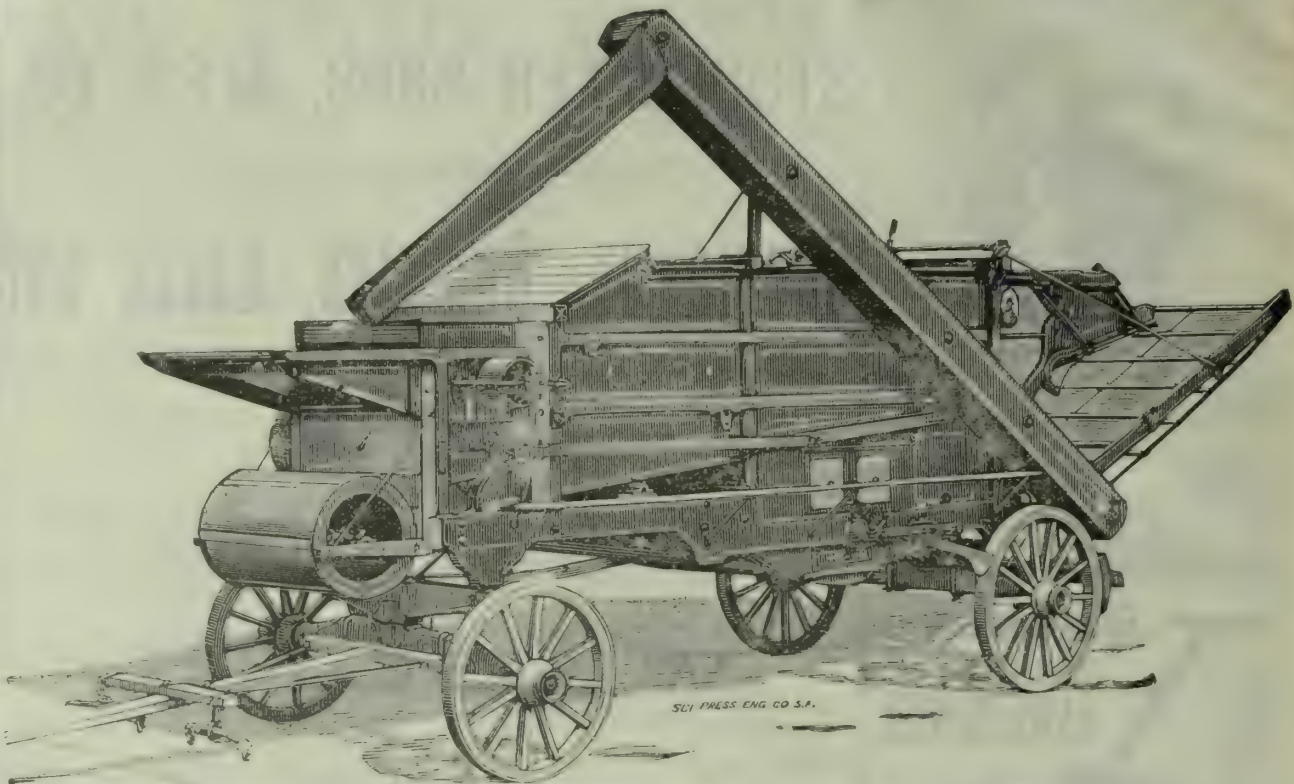
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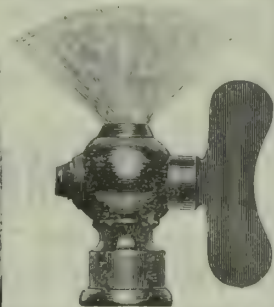
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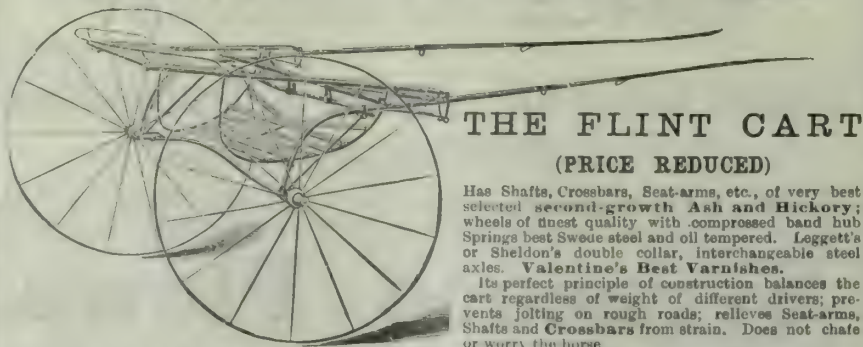
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At Merced Falls, Merced County, located on Merced River; size of Mill, 33x70; two stories in front and four stories in rear; latest improved roller machinery; new capacity; 100 barrels per day; power to increase to any capacity desired; title to water a d land perfect; 60 acres of land, comprising the town site of Merced Falls; reputation of flour is A1; commands all mountain trade; fine wheat country surrounding; no failures ever known; grain warehouse 80x80; four dwelling houses; 28 shares of Merced Falls Woolen Factory go with purchase. Address

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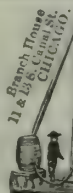
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The American Well Works
AURORA, ILL.
U. S. A.

A Standard-Bred Stallion.

(Continued from page 241)

makes him a very taking horse to even the casual observer. Homer's dam was that famous old mare Sally Chorister, who produced, besides Homer, Proteine, 2:18; Belle Brasfield, 2:20; Admiration (trial 2:26), and Belle Patchen, 2:30. Two of these have followed in their dam's footsteps and have produced trotters. Belle Brasfield is the dam of Holstein, 2:29, and Belle Patchen is the dam of that great racehorse, Baron Wilkes, 2:18, whose performances have, to a certain extent, brought Homer before the public, as his dam, Belle Patchen, is an own sister to him. His breeding as a broodmare sire, as will be seen, is simply perfect, as he is by the greatest broodmare sire of the generation and out of the greatest broodmare his sire ever covered.

Campaign also strikes a splendid line through Blackwood, sire of his second dam. Blackwood's record was 2:31. He was by Alexander's Norman, sire of Lula, 2:15; May Queen, 2:20, and the dams of Norman Medium 2:20, Fanny Robinson, 2:20, etc. Still further back, through his third dam, Campaign partakes of another royal strain, the famous Alexander's Abdallah (sire of Goldsmith Maid, 2:14), by Rysdyk's Hambletonian.

Having such blood to deal with, it is little wonder that Messrs. Shippee and Parker are turning out youngsters which strike the popular mind just at this time of intense activity in well-bred trotting horses. The horse now known as Campbell's Electioneer, whose sale to W. E. Campbell of Kansas for \$7000 was noted in the Rural of Feb. 23d, has, we are told, won a bid at the East far in advance of his purchase price in California.

California Products at Chicago.

CHICAGO, March 13.—Florida oranges were reported as in only moderate supply and in very good request for choice fruit, and quoted firm. California are still slow, except for fine Riverside or fine Washington Navel. Messina oranges are coming in and rule rather slow. California Riverside, 1/2 box, 176 in box, \$3.25; California Riverside, 1/2 box, 126 to 150 in box, \$2.75; California, San Gabriel, 1/2 box, \$2.50; California Navel, 1/2 box, \$3.50; 3-75; California Navel, (Washington) 1/2 box, \$4.50 @5.

Aside from there being some speculative demand for choice, unpeeled peaches in sacks, with now-and-then sales, the market rules very quiet and usually slow.

California Dried Fruits.—Apricots are quoted plenty and dullness reported. Quotable;

Apricots—Evaporated, bleached, bxs, 1/2 lb, 10@12; do, sun-dried, according to quality, 4@8c. Peaches—Evaporated, bleached, unpeeled, bxs, 7@8 1/2c; do, sun-dried, bleached, unpeeled, sks, 6@7c; do, sun-dried, unbleached, unpeeled, sks, 4@5c; do, sun-dried, peeled, bxs, 10@12 1/2c; do, do, sks, 10@10 1/2c; do, evaporated, peeled, bxs, 12@13c. Nectarines—White, evaporated, bleached, bxs, 7@8c; do, sun-dried, bleached, sks, 6@7c; do, red, evaporated, bichd, bxs, 6c; do, red, sun-dried, bichd, sks, 4@5c. Plums—New, pitted, 7 1/2@8c; new, unpitted, 4@7c. Prunes, according to size, in sks, 5@9c; do, Silver, 10@12c; do, Hungarian, sks, 3@5c.

Raisins—Loose Muscatsels, new, 1/2 box, \$1.10@1.30; do, London layers, new, \$1.75@2.25.

Hops sell at late quotations and meet with good demand, while at the same time stocks are very moderate and receipts are light. Current prices: Washington Territory, best, 24c; good to prime Pacific Coast, 20@22c; fair to good, do, 18@20c.

Jute at San Quentin.

In Warden McComb's monthly report to the prison directors at their meeting at San Quentin on the 12th inst. he says: "No attempt has been made to open the season for the sale of grain bags, as the Legislature has several bills under consideration which may interfere with the plan adopted last year. As soon as the matter is definitely settled, circulars will be sent to the grain-growers, giving terms and conditions."

The board approved two contracts with Messrs. Lichtenberg for jute—one for 2000 bales at four cents a pound and 1000 bales at a fraction over four cents. The contract price includes freight, insurance and duty.

ALLEGED ILLEGAL FENCING IN MODOC.—In regard to the alleged unlawful inclosing of some 35,000 acres of Government land in Modoc county by Jesse D. Carr, District Attorney Carey (to whom the case was referred by the Department of Justice) has requested the special agent of the Interior Department, who investigated the case and ordered Carr to remove all fences which inclosed public land, to make the necessary affidavits in order that he might institute civil suit against Carr. Mr. Carey also says in his report to the Department of Justice that if there are gateways provided in the fences and no person has been prevented from entering the lands for the purpose of making settlement, with a view to enter the same in the land office, and no person has been prevented from free passage upon the land, then criminal proceedings will not obtain.

THE IMPORTANT SHORTHORN SALES to be held by Killip & Co., at Baden Farm, on the 28th and at San Mateo Rancho on the 29th, must not be overlooked by our readers. See advertisement elsewhere in this issue.

THE farmers of Sand Creek, Tulare county, tried to get up a rabbit-drive recently, but the affair was a failure. Only six rodents were rounded up in 1800 acres.

List of U.S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING FEB. 26, 1889.

- 398,367.—AUTOMATIC FOG-HORN—A. F. Baatz, Bellingham, W. T.
- 398,578.—ANIMAL-RELEASING DEVICE—A. R. Brann, S. F.
- 398,499.—KEY—J. P. Dandmand, Virginia, Nev.
- 398,711.—HARVESTER—Jabez Draper, Stockton, Cal.
- 398,773.—WHEELBARROW—John Dupuy, S. F.
- 398,387.—BEE-HIVE—J. I. Fort, San Diego, Cal.
- 398,728.—SAFETY-ATTACHMENT FOR ELEVATORS—H. O. Hooper, S. F.
- 398,406.—AMALGAMATOR—W. & G. W. Johnson, Portland, Ogn.
- 398,785.—HOISTING APPARATUS—H. Kennedy, S. F.
- 398,739.—FRUIT-BOX—J. G. Lettelier, Los Angeles, Cal.
- 398,648.—PLOW—James & William Paterson, Stockton, Cal.
- 398,798.—GATE—W. O. Pierce, Sacramento, Cal.
- 398,461.—STEAM OR WATER PACKING—J. T. Smith, S. F.
- 398,464.—NIPPERS—J. Sponseller, Ft. Apache, A. T.
- 398,682.—HAY-LOADER—W. M. White, Tacoma, W. T.

NOTE.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

CHOICE CUTLERY BY MAIL.—We have received from Alling & Lodge, cutlery merchants of Madison, Indiana, a nice little catalogue of various shears, scissors and clippers, pruning, pocket and table knives, plated forks, spoons, etc., which they are sending by mail, postage prepaid. The different patterns of goods are well and clearly illustrated, the prices of each variety distinctly stated, and the catalogue may be had, we presume, by any of our readers who will write for it to Messrs. A. & L. at the post-office named above.

PLEASANT VALLEY FRUIT NURSERY.—John S. Colli s of Moorestown, Burlington Co., N. J., a name long known to Rural readers, sends us his spring catalogue and wholesale price-list to which are prefixed "some questions and answers on fruits." The modest garb in which it comes might lead one to infer that to promote his business interests, Mr. Moore trusts less in gaudily-printed covers and more in the intrinsic worth of the trees and plants which he ships to patrons.

AN INNOVATION.—At the brilliant reception given by Gov. Waterman to the members of the Legislature on the evening of Feb. 27th, no wines, punches or other intoxicating drinks were offered to the guests, but in the center of the front parlor there was set an immense bowl in the form of a well, from which was dispensed ice cold lemonade. The bowl was hidden in banks of violets.

FOREIGN IMMIGRANTS.—The forty-second annual report of the Board of Emigration Commissioners shows that during the year 1888 the total number of passengers from all foreign ports landed in Castle Garden was 370,822—237,856 males and 132,966 females. The nationalities chiefly represented were: Irish, 44,300; English, 38,355; German, 78,145; Russian, 33,052; Swedish, 37,934; Italian, 43,927

LEGAL TENDER.—A passenger on a street car in this city tendered in payment of his fare a three-cent piece and two cents, all United States coins. The conductor refused to receive the money and the passenger was forcibly ejected. The conductor was altogether too hasty in his action, as the evicted individual has brought suit for \$5000 damages.

AN INCUBATOR APPROVED.—Fanny Field, poultry editor of the *Prairie Farmer*, strongly indorses the improved Excelsior incubator advertised in this journal by Geo. H. Stahl of Quincy, Ill.

LUTHER BURBANK of Santa Rosa has some Japanese chestnut trees in his garden that yield fruit. one dozen of which weigh a pound.

TO SUBSCRIBERS.—Members of the P. of H. now receiving the regular editions of the RURAL PRESS are advised to try our Grange editions instead for awhile. The cost is the same for each edition. We will transfer names from either to the other on receiving a written request therefor.

THE GUIDE TO HORTICULTURE, published by the J. T. Lovett Co., Little Silver, N. J., is one of the finest catalogues of nursery products we have ever seen. In the matter of illustrations, cover and colored plates it is unique, chaste and refined. It contains a complete list of Fruit and Ornamental Trees, Shrubs, Vines and Creepers, Hedge and Herbaceous Plants, etc., fully described and illustrated, with botanical as well as common names. This book, of more than temporary value, is sent with colored plates for 10c., or without plates free.

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To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, to those who pay fully one year in advance of date, if requested the following articles (while this notice continues), at the very greatly reduced figures named at the right:

- 1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price \$1). \$0.25
- 2.—Beautiful Poetic Review, entertaining and instructive; 35 pages (a handsome and pleasing present).25
- 3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt.50
- 4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 120 pages, illustrated.25
- 5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations.05
- 6.—To New Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new" Free
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- 8.—Pacific Coast and Eastern Dailies and Periodicals, except special publications, we can usually give 10 to 15 per cent off advertised retail rates.
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- 11.—Life Among the Apaches, 322 pages, stiff cloth. .25
- 12.—\$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application. .25
- 14.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.). .25
- 15.—European Vines Described, 63 pages.05
- 19.—Webster's Dictionary, 634 pages, with 1500 illustrations; very handy and reliable.50
- 23.—Architecture Simplified, 60 pages.05
- 24.—Mother Bickerdyke's Life with the Army; patriotic and ably written; 166 pp., cloth, \$1.00.50
- 25.—Ropp's Easy Calculator, cloth, 80 pp.25
- 26.—How to Tell the Age of a Horse.05
- 27.—Percheron Stud Book—French—bound in leather, 192 pages (full price, \$3). 1.00
- 28.—What Every One Should Know; a cyclopedia of valuable information; 510 pp.; cloth; (full price \$1).50
- 29.—Knitting and Crochet; by Jennie June; 144 pp., 200 illustrations.25
- 30.—Needle Work, by Jennie June; 12 pp., 200 illustrations.25
- 31.—Ladies' Fancy Work, by Jennie June; 152 pp., 700 illustrations.25
- 32.—The Way to do Magic; illustrated, 60 pp. 10
- 33.—The Taxidermist's Manual; illustrated, 64 pp. . . 10
- 34.—A Dictionary of American Politics; comprising accounts of political parties, measures and men, and explanations of the Constitution, divisions and practical workings of the Government, together with political phrases, familiar names of persons and places, noteworthy sayings, etc., by Everitt Brown and Albert Strauss. (Full price \$1.). . .50

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POISONOUS TICKETS.—In order to preserve its tickets from mutilation by mice or rats while in the cases, the A. & P. R. R. is now using ticket-paper prepared with arsenic. Passengers who are in the habit of chewing their railroad tickets are cautioned to discontinue the practice.

A FLOCK of wild geese settled on a 40 acre wheat field near Willows, one day last week, and picked it clean in two hours.

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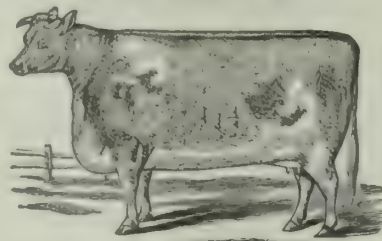
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Of the above-named classes. Come and have a look at this fine stud of horses, make your selection and I will guarantee prices and terms to suit.

Catalogue sent on application.

Horses may be seen at the **RED STABLE**, a little to the north and right of the R. R. Depot, Petaluma.

COLTS BROKEN.

THE SOUTHER FARM,

One and a half miles northeast of San Leandro, Alameda County, has every facility for Breaking Colts properly. Rates very reasonable. Horses boarded at all times.

THE SOUTHER FARM,

GILBERT TOMPKINS, Proprietor,
P. O. Box 149, San Leandro, Cal.

IMPORTANT!

To Breeders of all-work Horses.
FOR SALE!

A two and one-half year old Stallion Colt; weighs 1300 pounds; color, beautiful steel gray; perfectly sound; broken to drive single and double, and for style, considering weight, size and age, perhaps cannot be excelled in the State. Is three-fourths Norman and one-fourth Belmont. For further particulars apply to

G. J. VANDERVOORT,
Sunol, Cal.

SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and the dam of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp. Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 406, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almost, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medco (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Rysdyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trickett, 2:24, and Stamboul, 2:14; Almost by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08; and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 6th heat, 2:26.

First dam Katie G (the dam of H. K. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Massineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.

Vol. 1, American C. B. S. R.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

Second dam by Sportsman (291).

Third dam by Luck's All (188).

Fourth dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" class, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire beating 20 others.

First dam Whalebone (855), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16 1/2 hands high, weight 1600 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 24; he by Master George 263, by King George 180; he by King George IV 163.

Napoleon is a fine, rich bay with black legs, a d very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teedale, and second premium at Bowes, Knealand, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERM 3, \$25 for the season.

The Standard Bred and Cleveland Bay Stallions

Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

PASTURAGE, \$4 per month; Hay and Grain, \$10. Best care taken, but no liability assumed for accidents or escapes.

Mares sent to Fashion Stables, Oakland, Bennett's Stables, Martinez, or to Geary & Grindie's Stables, Haywards, will be forwarded to Farm free of charge.

Address:

COOK STOCK FARM,
DANVILLE, CAL.

S. H. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 13, 1889.

Rains, the past week, interrupted to some extent trade in this city, but this was counterbalanced by its imparting a more hopeful feeling regarding crop prospects. The only drawback to the general expression of confidence was the report of many localities in some of the central valleys in the central and southern counties either not having been visited by rains this storm, or else the rainfall was light, to-day's telegrams report heavy rains in these sections. Persons claiming to be weather prophets are confident that the storm is not over yet, and that all sections of the State will be visited by good rainfalls before a final clearing up. In the absence of general trading and more selling pressure, prices of farm products have drifted lower, particularly for wheat. The shrinkage in the latter was also influenced by falling markets at the East and abroad. The following is to-day's cable:

LIVERPOOL, March 13. — Wheat—Depressed. California spot lots, 75 5d @ 7s 8d; off coast, 37s 6d @ 37s 9d; just shipped, 37s 9d; nearly due, 37s 9d; cargoes off coast, nothing offering; on passage, very inactive; Mark Lane wheat, weaker; English country markets, slow, French, dull; wheat and flour in Paris, slow; weather in England, mild.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Mar.	Apr.	May.	June.	July.	Aug.
Thursday	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2
Friday	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2
Saturday	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2
Monday	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2
Tuesday	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2	78s 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday	38s 1/2	38s 1/2	38s 1/2	Quiet.
Friday	38s 1/2	38s 1/2	38s 1/2	Inactive.
Saturday	38s 1/2	38s 1/2	38s 1/2	Inactive.
Monday	38s 1/2	38s 1/2	38s 1/2	Slow.
Tuesday	38s 1/2	38s 1/2	38s 1/2	Very dull.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	Mar.	Apr.	May.	June.
Thursday	96 1/2	97 1/2	98 1/2	98 1/2
Friday	96 1/2	97 1/2	98 1/2	98 1/2
Saturday	96 1/2	97 1/2	98 1/2	98 1/2
Monday	96 1/2	97 1/2	98 1/2	98 1/2
Tuesday	96 1/2	97 1/2	98 1/2	98 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	Mar.	Apr.	May.	July.
Thursday	100 1/2	102 1/2	103 1/2	80 1/2
Friday	99 1/2	101 1/2	102 1/2	80 1/2
Saturday	99 1/2	101 1/2	102 1/2	80 1/2
Monday	99 1/2	101 1/2	102 1/2	80 1/2
Tuesday	99 1/2	101 1/2	102 1/2	80 1/2

NEW YORK, March 13. —Wheat—4 1/2c for cash, 9 1/2c for May, 9 1/2c for June and 9 1/2c for July.

CHICAGO, March 13. —Wheat—9 1/2c for May and 8 7/8c for July.

Foreign Grain Review.

LONDON, March 11. —The Mark Lane Express, in its review of the British grain trade during the past week, says: Values of English wheat advanced slowly during the first part of the week. Then milder weather caused a halt, and on most of the exchanges prices are inclined to recede. The supply of flour made from '87 wheat is becoming limited, and prices have advanced 6d. English and American flours made from '88 wheat were firm until Wednesday, since which day they have been quieter. California barley, hard and steady, although satisfactory in color, is only bought in the absence of the best. English and fine German and Danish grinding barley is steady at large ports. The large quantity offered elsewhere weakened prices. Oats are firm. Large arrivals of corn have modified prices; new American is quoted at 19s 6d; old, 20s 9d. At to-day's market English wheats were firmer; foreign, steady; flour, steady. Corn and feeding barley closed better.

Wheat and Corn Surplus.

WASHINGTON, March 11. —The statistical report of the Department of Agriculture for March relates to the distribution of wheat and corn. The amount of corn reported still on hand is 39.6 per cent. The surplus of merchantable average 82 per cent, which is less than in 1884, 1886 or 1887. The average price is less than in December. The March average for merchantable corn is 33.9 per cent per bushel; for unmerchantable, 22.8 per cent per bushel. The general average of Ohio, Indiana, Illinois, Iowa, Missouri, Kansas and Nebraska is 25.6 per cent per bushel.

The proportions of the wheat crop on hand March 1st are less than any year since 1880, except in 1882 and 1887. The actual quantity on hand is less than any recent year, except 1882 and 1886. It is estimated at about 112,000,000 measured bushels. The lowest State percentages are in the principal wheat-growing States, as follows: Ohio 27, Michigan 23, Indiana 24, Illinois 25, Wisconsin 28, Minnesota 26, Iowa 32, Missouri 27, Kansas 24, Nebraska 31, Dakota 24. In these States the quantities on hand are less than in March last by about 21,000,000 bushels.

Eastern Wool Market.

NEW YORK, March 8. —Bradstreet's says of the wool market: More inquiry for wool is reported by manufacturers this week in the principal markets. With this exception there is no change in the situation. Business is comparatively dull, and prices are in buyers' favor. From all accounts some of the larger consumers have pretty well run through their supplies. In the country what wool remains in first

hands is held very closely. Most mills at the West are said to have small supplies, and some of them may send East for wool. There is a rather free movement eastward from California. No more life appears in the woolen goods market, and there is little beyond a shortage of supplies to hold up quotations. At Philadelphia the market is unchanged, but if anything a little steadier for desirable lines of all kinds. Stocks are light.

BOSTON, March 8. —The only new feature to note in the wool market this week is a little more inquiry for choice fleeces, which have become quite scarce, and are held at extreme prices; in fact, stocks of nearly all kinds are much smaller than usual at this season of year, and buyers have to run around a good deal before finding lots to suit, but the general demand is still sluggish, and where offerings are not just what is wanted, slight concessions have to be made to close sales. Transactions in domestic wools foot up a little more than last week, but they have been in numerous small lots, and include a wide variety of grades. Total sales, 1,559,800 lbs.

Miscellaneous.

NEW YORK, March 9. —Dry hides are firm. There is a liberal and general supply, but not burdensome, as tanners have no surplus.

Raisins are still moving steadily. There is a good inquiry for prunes at 6 1/2 @ 9 1/2c. Nothing of moment in other dried fruit. Remnants of apricots are closing out well.

There is no marked activity in hops, but the market is sound. The demand runs to top grades, which are not plenty nor offered freely at current rates.

Local Markets.

	S. S.	B. S.	B. '89.	*S. '89.	S. '89.
Thursday	146 1/2	146 1/2	147 1/2	138 1/2	138 1/2
Friday	146 1/2	146 1/2	147 1/2	138 1/2	138 1/2
Saturday	146 1/2	146 1/2	147 1/2	138 1/2	138 1/2
Monday	146 1/2	146 1/2	147 1/2	138 1/2	138 1/2
Tuesday	146 1/2	146 1/2	147 1/2	138 1/2	138 1/2

BARLEY.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday	82 1/2	81 1/2	92 1/2
Friday	82 1/2	81 1/2	92 1/2
Saturday	82 1/2	81 1/2	92 1/2
Monday	82 1/2	81 1/2	92 1/2
Tuesday	82 1/2	81 1/2	92 1/2

BAGS—The market for Calcuttas, influenced by improved crop prospects, is stronger, with the pool talking of a still higher range. They claim that the stock here is 25,000,000, and on the way 10,000,000; total, 35,000,000 bags. It is also said that contracts entered into at Calcutta for 12,000,000 bags or its equivalent in burlaps, for shipment, have nearly all been resold in that market, when crop prospects here looked gloomy. For spot, 7 1/4 @ 7 1/2c is asked, and for June-July, 7 1/4 @ 7 1/2c.

BARLEY—The market has drifted to still lower figures, but at the close there is a steadier tone. In futures trading has been light, the bears hardly venturing to sell freely at the low bids made. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—200 tons, 89 1/2c. Buyer season—600 tons, 79c; 300, 79 1/2c. Spot, season's storage paid—100 tons, 77c @ ctt. Afternoon Session: Buyer 1889—100 tons, 89c; 800, 88 1/2c; 300, 88 1/2c. Buyer season—200 tons, 78 1/2c; 100, 78 1/2c @ ctt.

BUTTER—The rains having improved the pastures, the feeling among dealers for the immediate future is not of a cheerful character, notwithstanding the call is reported to be freer for both shipping and local.

CHEESE—The market is still heavy, with buyers not disposed to anticipate their wants.

EGGS—The consumption is steadily growing, causing a stronger tone. It is generally claimed that with improved roads in the country, receipts will be larger than ever before.

FLOUR—The market is barely steady. Some cutting in prices is reported.

WHEAT—The sample market has ruled in buyers' favor throughout the week. Owing to rains, exporters only took parcels obtainable at concessions on asking prices. At the close to-day the tone is firmer, owing to a slight improvement in futures at the East, and appearances indicating fair weather. In futures trading has been only fair, with slight fluctuations, and they gradually sinking, but at the close the feeling appears to be steadier. The following are today's Call Board sales:

Morning Session: Buyer 1889—1300 tons, \$1.43 1/2; 1100, \$1.43 1/2; 600, \$1.43 1/2. Seller 1889, new—100 tons, \$1.35 1/2. Buyer season—1600 tons, \$1.40 1/2; 100, \$1.40 1/2 @ ctt. Afternoon Session: Buyer 1889—200 tons, \$1.43 1/2; 100, \$1.43 1/2; 1400, \$1.43 1/2. Seller 1889, new—200 tons, \$1.35 1/2; 100, \$1.34 1/2. Seller 1889, old—100 tons, \$1.34 1/2. Buyer season—100 tons, \$1.40 1/2; 1200, \$1.40 1/2; 500, \$1.40 1/2 @ ctt.

[COMMUNICATED.]

Market Information.

Cereals.

Continued rains the past week contributed no little to allay fears regarding the crops. At this writing our advices warrant the assertion that without some unforeseen event, climatic, the wheat crop in this State will be the largest on record. This opinion of necessity is based on favorable growing weather in April and May, and the absence of the devastating hot north winds which generally visit the Sacramento and San Joaquin valleys at the more trying times. Large snow deposits on the mountain ranges in the months of March and April, as a rule, cause the north winds to postpone their visits until after the harvest.

In the local wheat market the past week, trading was unusually light, but not more so than usually obtains during a rainstorm, owing to charterers claiming their wet day prerogative, that is, not being compelled to furnish cargoes for fear of getting the grain damaged. So far as can be ascertained, holders of wheat are not pressing the market but remain firm in their views under the belief that the carry-over from the present season will be light. In

the absence of much business and more or less of a deadlock between sellers and buyers, quotations are more or less nominal. In futures, trading the past week was fair, with the bear element predominating. Several who had a short interest out are reported to have filled at the lower prices. The feeling with the longs appears to be of a conservative character—feeling their way until the outlook is more definitely determined.

The Mark Lane Express, February 18th, says: The snow has gone almost as quickly as it came; it "packed" very loosely and melted very easily on the arrival of the thaw. A period of dry and cold weather, but without any extreme rigor such as would make the land too hard to be worked, is what we now require. Farmers have begun barley sowings on suitable land, but the light, free-working, and warm soils which yield the fine barley loved by the maltster do not constitute any very large proportion of the total acreage of the country. The area of land on which good malting barley is grown remains very much the same from year to year, and unless the barley is likely to attain malting, or at least for distilling quality, it is useless to advise our agriculturists to grow it in the face of Russian and Roumanian competition. The present good demand for fine malting barley and the scarcity of samples is, we hear, stimulating a good many farmers to follow their wheat of 1888 with barley sowings for 1889. The value of foreign wheat is at the present juncture the subject of two different tendencies. For white wheat, prices tend to harden. The quiet but apparently growing demand for Californian wheat for the Continent removes to a great extent the depression induced by the one and one-half million qrs. of Californian wheat now on passage to the United Kingdom. This quantity is about 25 per cent above the average for the time of year, but if the Continent takes that 25 per cent surplus the position becomes one of reasonable strength for the English markets. There is, too, the now ascertained certainty of Australian abstention from wheat shipments. This alone amounts to a difference of over a million qrs. in the total supply of fine white wheat for the year. Turning, however, to red wheat, the influences which make for depression may be said to prevail. Russia last week increased her shipments from 63,780 qrs. to 323,684 qrs., while India is proffering soft red wheat, new crop for May shipment at 3s. 3d. per qr., a price only 6d. above the quoted value of the same sort as now arriving in the poorest of States, the very dregs and remnants of the last year's yield.

The rains have not contributed anything calculated to promote a better feeling among holders, but they have done considerable in building up the bear feeling, even at current low prices. The consumption is quite good, but not so large as was looked for, owing to the improved pasture. It is claimed by some dealers that choice plump bright brewing grades of barley are relatively scarce and when brewers come into the market later on better prices are liable to obtain. Crop prospects are of a favorable character.

Oats are fairly steady. Receipts are only fair, while the consumption is of a steady character. The low price this season stimulated the consumption.

Corn has held steady throughout the week. The present weather is favorable to a good crop. The outlook is said to point to only an average.

In rye and buckwheat the market is without any particular change to note.

Fruit.

General advices from the fruit-growing sections are of an encouraging character for a large crop of berries and stone fruits. Some dealers in this city express fears of a frost following the present rain, which, if it comes, will do considerable damage. By reference to the files of the Rural Press the writer notices that severe frosts are reported to have visited many parts of the State during the week ending April 25, 1885, which did considerable damage to the growing fruits.

Good to choice apples continue to come to hand from the Eastern States. The market for apples holds to steady prices. The demand is only fair. Oranges continue to come to hand in liberal supplies. Prices hold firm under a good increasing demand. Shipments to the distributive points east of the Rocky mountains are reported to be increasing from the principal supply points in this State.

The market for lemons and lemons is without change. The demand continues steady, notwithstanding the receipts appear to be increasing.

The stock of canned fruits in this State is reported to aggregate over 120,000 cases. This is the largest stock at this season of the year ever before reported. Canners and others in the trade are hopeful of obtaining a reduction in overland freights, so as to market the carry-over before the new season opens.

Dried fruits have a firmer and stronger tone, under lessening supplies and an increased trade looked for in the near future. All kinds of choice well-selected are getting scarce and gradually creeping up in price.

With indications of fairer weather hucksters came in on the market and bought quite freely of oranges, causing a better tone.

Feedstuff.

The rains have so far improved the natural feed prospect that many dealers look for quite a shrinkage in the consumptive demand for ground feed. This feeling restricts the demand and causes a lower range of quotations to obtain for bran and a weaker tone for other ground feed. Stormy weather has made bad roads and restricts the receipts of hay, which naturally cause a steady market even if all present indications point to an abundance of natural feed, and also to a large crop of hay.

In roots the demand has only been fair. Even low prices fail to tempt an increased call.

Live-Stock.

The market for both bullocks and mutton sheep met with another slight easing off, closing the week weak. The selling pressure continues strong, and as the consumption is lighter, sellers must accept buyers' views. The selling on commission is practiced to a very large extent. The rains we are now experiencing may lessen, for a short time at any rate, the desire to press the market with bullocks. Hogs continue scarce and high for the block, with good prices also ruling for packing. Milch cows are moving off fairly well at from \$35 to \$45 for dairy purposes. In horses, there is nothing to report, the present stormy weather being against trading.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, grain fed, 6 1/2 @ 7c @ lb.; dressed, 9 1/2 @ 10c @ lb.; soft, 5 1/2 @ 6 1/2c @ lb.; dressed, 8 1/2 @ 9c @ lb. Stock hogs, 4 1/2 @ 5 1/2c @ lb.

BEEF—Stall fed, 6 1/2 @ 7c @ lb.; grass fed, extra 6 @ 6 1/2c @ lb.; first quality, 5 1/2 @ 6c @ lb.; second quality 4 1/2 @ 5 1/2c @ lb.; third quality, 3 1/2 @ 4 1/2c @ lb.

VEAL—Small, 8 @ 9c @ lb.; large, 7 @ 8 1/2c.

MUTTON—Wethers, 6 @ 6 1/2c @ lb.; ewes, 5 1/2c @ 6 1/2c @ lb.; lamb, spring, 10 @ 15c @ lb.

Vegetables.

All advices are confirmatory of large crops of garden truck, owing to more attention given to them and also the weather, so far, being of the most favorable character for the growing plants.

Asparagus is coming in more freely, and as prices shade off the consumption increases. Green peas are lower under heavy receipts. Sweet peas are also easing off. Tomatoes are still coming in sparingly, as are cucumbers. Green peppers are as yet in light supply.

The receipts of new potatoes are only fair. The quality is improving and the demand steadily growing. For choice well-conditioned old the call is only fair.

Choice good-keeping onions are wanted and fetch good prices. The demand is for home and shipping.

Hucksters and small dealers entered the market to-day, and bought quite freely of peas, cleaning up all the cheap parcels.

Miscellaneous.

The poultry market has held to steady prices, with, at times, a slight advance obtainable for the more choice well-selected.

The rains have created a larger inquiry for alfalfa seed, and, as the stock here is reported to be light and well in hand, prices are marked up, with a still higher range not at all unlikely in the near future.

Mustard seed is held at stronger figures. The outlook for the crop is very promising.

Honey and beeswax are without change. Broomcorn is quoted higher, with hurl quite scarce and tending to still higher figures.

In wool, there is nothing doing. Dealers express themselves as having confidence in good prices ruling. The strike in some of the factories in Massachusetts may operate, to some extent, against the consumptive demand. The present rains will wash off the sheep and make the wool clean.

Hops are fairly steady, with a good strong tone for choice.

Beans are strong at the advance, with all indications pointing to still higher figures when an active demand sets in.

From the Commercial News of March 12th, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port	184,606	253,943
On the way to neighboring ports	44,254	120,359
In port, disengaged	34,314	51,202
In port, engaged for wheat	41,458	34,290

Totals

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to March 12th, the following are the exports from this port:

	1889.	1888.
Wheat, cts.	10,044,497	6,768,972
Flour, bbls.	573,295	553,237
Barley, cts.	1,230,576	549,834

Dried Fruits, Etc.

The quotations given below are for average prices paid. Choice to extra choice fetch an advance on the highest quotations while poor sells slightly below the lowest quotations.

Prices named for sun-dried are for fruit in sacks. Add for 50-lb. boxes 1c per lb., and for 25-lb. boxes 1c to 1 1/2c per lb.

Apples, sun-dried, quarters, common	3 1/2 @ 4 1/2
" " " prime	4 @ 4 1/2
" " " choice	4 1/2 @ 4 1/2
" " " sliced, common	3 1/2 @ 4 1/2
" " " prime	4 @ 4 1/2
" " " choice	4 1/2 @ 4 1/2
" " " Evap. bleached, ring, 50-lb. boxes	8 @ 8 1/2
Apricots, sun-dried, unbleached, common	4 @ 5
" " " prime	5 1/2 @ 6
" " " choice	6 @ 6 1/2
" " " bleached, prime	11 @ 12
" " " choice	12 @ 13
" " " fancy	13 @ 15
" " " Evap. choice, in boxes	14 @ 15
" " " fancy	16 @ 17
Figs, sun-dried, black	4 @ 4 1/2
" " " white	— @ —
" " " washed	— @ —
" " " fancy	4 @ 5
" " " pressed	2 @ 3
" " " unpressed	2 1/2 @ 3
Grapes, sun-dried, stemless	2 1/2 @ 3
" " " unstemmed	1 1/2 @ 2 1/2
Nectarines, sun-dried	3 @ 5
" " " evaporated, in boxes	5 @ 10
Peaches, sun-dried, unpeeled, common	3 @ 3 1/2
" " " prime	3 @ 3 1/2
" " " choice	4 @ —
" " " fancy	5 @ 7
" " " evaporated	6 @ 8
" " " sun-dried, peeled, prime	10 @ 12
" " " choice	7 @ —
" " " fancy	9 @ —
" " " evaporated, in boxes, choice	10 @ —
" " " fancy	12 @ —
Pears, sun-dried, quarters	3 @ 4 1/2
" " " sliced	5 @ 6
" " " evaporated, in boxes	7 @ 8
Plums, pitted, sun-dried	5 1/2 @ 6 1/2
" " " evap. in boxes, choice	7 @ —
" " " fancy	8 @ —
" " " unpitted	1 1/2 @ 2 1/2
Prunes, Cal. French, ungraded sizes	1 @ 3 1/2
" " " graded	1 @ 3 1/2
" " " " 80 to 90	4 1/2 @ 5
" " " " 70 to 80	5 @ 5 1/2
" " " " 60 to 70	5 1/2 @ 6
" " " " 50 to 60	6 @ 6 1/2

Fancy sell for more money.

CALIFORNIA HONEY.

Comb, dark, 2-lb. frames, 60-lb. cases, 30-lb. cases	4 @ 5
" " " amber, " " " " " "	5 @ 6
" " " white, " " " " " "	7 @ 8
Extracted, dark, 5-gal. cans, 2 cans to case, 30-lb. cases	4 1/2 @ 5
" " " white, " " " " " "	5 @ 6
Comb, 2-tins, 2 doz. to case, 30-lb. cases	3 @ 3 1/2
Extracted, " " " " " "	2 @ 2 1/2
" " " 4-lb. tins, 1 doz. " " " "	4 @ 4 1/2

RAISINS.

Halves, quarters and eighths, 25, 50 and 75 cents higher respectively than whole box prices. London Layers, choice 1/2 bx. \$1.50 @ 1.75. " " fancy, " " " " 1.75 @ 2.00.

Layers, 1/2 bx.	1 25	@	1 40
Loose Muscats, common, 1/2 bx.	90	@	1 00
" " fancy, " "	1 00	@	1 25
Unstemmed " in sacks, 1/2 lb.	4	@	4 1/2
Stemmed " " "	4	@	4 1/2
Seedless " " 20 lb. bx.	1 00	@	1 20
" " Sultanas, unbleached, 1/2 bx.	1 15	@	1 20
" " bleached " "	1 20	@	1 25

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.			
BEANS AND PEAS. WEDNESDAY, March 13, 1889.			
Bay, chl.	2 30	@	2 65
Butter	2 50	@	3 00
Pea	1 75	@	2 00
Red	2 30	@	2 40
Pink	2 20	@	2 35
Large White	1 75	@	2 00
Small White	3 50	@	4 00
Lim.	3 50	@	4 00
Fl. Peas, bkkeye	2 00	@	2 10
do green	3 00	@	4 00
do Nles.	2 00	@	2 10
BROOM CORN.			
South'n 1/2 ton.	70	@	85 00
Northern	65	@	75 00
CHICORY.			
California	5	@	6
German	6 1/2	@	7
DAIRY PRODUCE, ETC.			
BUTTER.			
Cal. Com. to fair, 1/2 lb	10	@	12 1/2
do good to choice	12 1/2	@	15
do Fancy brnds	17	@	18
do pickled	—	@	—
Eastern in tubs	—	@	—
do in rolls	—	@	—
EGGS.			
Cal. ranch, doz.	17 1/2	@	19
do store	15	@	17 1/2
Eastern, lined	7 1/2	@	12
Eastern, fresh	15	@	16
FEED.			
Bran, ton	12 50	@	14 00
Feedmeal	24	@	25 00
Gr'd Barley	18	@	20 00
Middlings	15	@	17 00
Oil Cake Meal	30	@	30
Manhattan Food	7 50	@	7 50
HAY.			
Wheat, per ton	9 50	@	14 00
Wheat and Oats	8 50	@	14 00
Wild Oats	10	@	12 50
Clover	10	@	13 00
Tame Oats	10	@	11 50
Barley	8	@	11 00
Barley and Oats	9	@	11 00
Alfalfa	7	@	9 00
Compressed	8	@	12 50
Straw bale	70	@	90
FLOUR.			
Extra, City Mills	4 65	@	4 75
do Co'try Mills	4 50	@	4 70
Superfine	3 50	@	4 00
GRAIN, ETC.			
Barley, feed, chl.	73 1/2	@	81 1/2
do Brewing	91 1/2	@	95
do do Choice	97 1/2	@	1 05
Chevalier cane	1 30	@	1 40
do com to good	1 10	@	1 20
Buckwheat	3 25	@	4 00
Corn, White	1 05	@	1 12 1/2
Yellow	1 07 1/2	@	1 15
Oats, milling	1 15	@	1 20
Choice feed	1 12 1/2	@	1 15
do good	1 10	@	—
do fair	1 05	@	1 07 1/2
do Gray	1 05	@	—
Rye	1 65	@	1 85
Wheat, milling	1 42 1/2	@	1 50
Chit edged	1 47 1/2	@	—
do Choice	1 47 1/2	@	—
do fair to good	1 42 1/2	@	1 45
Shipping, choice	1 40	@	1 41 1/2
do good	1 38 1/2	@	1 40
do fair	1 35	@	1 37 1/2
HIDES.			
Dry	11	@	—
Salted	5	@	—
HOPS.			
Oregon	10	@	15
California	10	@	15
ONIONS.			
Red	—	@	—
Silver-skin	1 25	@	1 85
NUTS—JOBBER.			
Walnuts, Cal. lb	7	@	7 1/2
do Chile	9	@	10
Almonds, hd shl.	5	@	6
Soft shell	9	@	10

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.			
WEDNESDAY, March 13, 1889.			
Apples, bx, com	1 00	@	1 50
do Choice	1 75	@	2 75
do Extra, bbl	3 00	@	5 00
Bananas, bunch	1 50	@	3 50
Cranberries	7 00	@	8 00
Limes, Mex.	4 00	@	5 00
do Cal.	75	@	1 50
Lemons, Cal. bx	75	@	1 75
do Sicily, box	4 00	@	5 00
do do seedling	2 00	@	2 25
Oranges, Com bx	1 00	@	1 75
do Choice	2 00	@	2 75
do Navala	—	@	—
choice	3 75	@	4 50
do good do	3 00	@	3 50
do do Com	1 50	@	2 75
Pineapples, doz.	4 00	@	5 00
Raspberries, cb.	—	@	—
Strawberries, cb.	—	@	—
VEGETABLES.			
Asparagus, lb.	8	@	12 1/2
do extra choice	15	@	17 1/2
WEDNESDAY, March 13, 1889.			
Okra, dry, lb.	15	@	25
do Green bx.	—	@	—
Parasips, chl.	1 00	@	1 25
Peppers, dry, lb.	8	@	10
do green, lb.	8	@	12 1/2
Squash, Sum-	—	@	—
mer, bx.	—	@	—
do M'w-fat	12	@	18 00
String beans, lb.	12 1/2	@	18
Turnip, chl.	50	@	—
Beets, sk.	50	@	—
Cabbage, 100 lbs	45	@	55
Carrots, sk.	25	@	30
Green Corn, cr.	—	@	—
Green Peas, lb.	1 1/2	@	2 1/2
Sweet Peas, lb.	3 1/2	@	5
Mushrooms, lb.	8	@	20
Rhubarb, lb.	10	@	17 1/2
Cucumbers, doz.	1 00	@	1 50
Garlic, sk.	50	@	75
Tomatoes, rv, bx	1 25	@	2 00
Egg Plant, lb.	—	@	—

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

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PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.)

DATE. March 6-12.	Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.			
	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.				
Wednesday .....	.00	72	Nw	Cl.	.00	52	N	Cy.	.00	70	S	Fr.	.00	72	SW	Fr.	.00	55	SW	Cy.	.00	78	S	Cl.	.00	62	SW	Cl.	.00	60	W	Cl.	.00	58	SW	Cy.
Thursday .....	.00	66	Nw	Fr.	.06	54	SW	Cy.	.08	54	S	Cy.	.04	56	SW	Cy.	.39	55	SE	Cy.	.T	56	S	Cy.	.00	64	S	Fr.	.00	58	SW	Fr.	.00	62	Nw	Fr.
Friday .....	.02	52	Nw	Cy.	.06	60	SE	Cy.	.36	56	S	Cy.	.10	54	SE	Cy.	.20	57	SW	LR.	.00	62	S	Cy.	.00	58	S	Cy.	.18	58	SW	Cy.	.T	60	W	Cy.
Saturday .....	.10	62	N	Cl.	.24	62	S	Cy.	.50	60	S	Cy.	.02	64	SE	Cy.	.65	59	S	Cy.	.00	68	W	Cl.	.00	56	S	Fr.	.00	58	W	Fr.	.00	62	Nw	Cl.
Sunday .....	.00	66	NE	Cy.	.12	50	S	Cy.	.12	52	S	Ry.	.40	54	SW	Ry.	.46	55	SE	Cy.	.00	68	SE	Cy.	.00	58	S	Fr.	.00	58	SW	Cy.	.T	62	Nw	Fr.
Monday .....	.01	62	SE	Cy.	—	—	—	—	.28	58	S	Cy.	.38	64	SE	Cy.	.03	62	S	Cy.	.00	70	S	Fr.	.00	60	S	Cl.	.00	60	W	Cl.	.00	62	W	Cl.
Tuesday .....	.34	52	S	Ry.	—	—	—	—	1 94	56	S	Ry.	.32	58	SW	Ry.	.95	58	SE	LR.	.T	66	S	Cy.	.00	60	S	Cy.	.00	60	SW	Cy.	.00	62	W	Cl.
Total .....	.37				.48				3 28				1 26				2 68				.T				.00				.18							

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; Om., calm; — indicates too small to measure. Temperature, wind and weather at 12:00 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.

IMPORTANT ANNOUNCEMENT!

PEREMPTORY SALE

—OF—

English Shire, Clydesdale and Norman Stallions,

—AND—

CLYDESDALE MARES,

At 1 P. M., Tuesday, March 26, 1889,

—AT—

BAY DISTRICT TRACK.

By direction of Mr. I. Trestrail we will offer his consignment of THOROUGHBRED CLYDESDALE STALLIONS and MARES, comprising eight head. These are the most superior lot of Clydes ever imported to California.

We are also instructed by Mr. Morgan of Cheyenne to dispose of his consignment, consisting of four ENGLISH SHIRE STALLIONS and four NORMAN STALLIONS. These horses have been selected expressly for this market and are in every way desirable animals.

This will form the most extensive sale of stallions that has ever taken place in California. The horses are now at Bay District Track and may be seen at any time previous to sale.

KILLIP & CO., Auctioneers,

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Important Closing-Out Sale

WITHOUT RESERVE,

—OF—

THOROUGHBRED Shorthorn Cattle!

—COMPRISING—

60 Head of Females and 12 Head of Bulls,

—AT—

SAN MATEO RANCHO,

Property of W. H. HOWARD, Esq.,

FRIDAY - - MARCH 29, 1889

At 11 A. M.

On the above date we will offer, without reserve, the entire San Mateo Ranch Herd of Registered Shorthorn Cattle, and also 50 head of High-grade Cows and Heifers, selected from the famous milking-herd of the San Mateo Ranch Dairy.

This sale, therefore, offers special inducements, affording a rare opportunity to purchase desirable animals at moderate cost for either breeding or dairy use. These cattle have the additional advantage of being acclimated and accustomed to California ranges.

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150 COLTS

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200 IMPORTED BROOD MARES

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NOTICE.

THE ANNUAL MEETING OF THE STOCKHOLDERS of the Grangers' Business Association, for the election of Directors to serve for the coming year, will be held at the office of the Association, 105 Davis street, San Francisco, at ten o'clock A. M., on Wednesday, April 10, 1889. J. C. STEELE, President. CHAS. WOOD, Secretary.

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Nursery and Fruit Farm,**
Lodi, Cal.

JAMES A. ANDERSON, Manager.

A CHOICE COLLECTION OF

FRUIT, SHADE & ORNAMENTAL TREES,

Shrubs, Vines, etc., both wholesale and retail at
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SPECIALTIES Nonpareil Almonds, 1 & 2 Almonds,
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Peaches in variety. Catalogues on application.

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MATARO AND CARIGNANE,
RIPARIA, GRAPE ROOTS & CUTTINGS,
\$5 per thousand.

White Adriatic Figs grown and packed by me for sale
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FRESH AND RELIABLE. BUY NO OTHERS

Seed Store at your door. Send for our Illustrated Seed and Tree Catalogue.

J. M. McCULLOUGH'S SONS,
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ADRIANCE "BUCKEYE" MOWERS.

MAKE SURE THAT YOU BUY THE BEST MOWER MANUFACTURED.

One that will Outwear two of any other make of Machine.

One that is very Simply Constructed and the Lightest Draft.

One that will do Better Work than any other Mower made.

TRADE-MARK "BUCKEYE."

The Machines built under the Trade-Mark "BUCKEYE" by Adriance, Platt & Co., Poughkeepsie, New York, have secured and retained the preferences of a large majority of the farmers of the

PACIFIC COAST DURING THE PAST 30 YEARS.

We have the exclusive right to the use of the Trade-Mark "BUCKEYE" as applied to Mowers and Reapers on the Pacific Coast, and caution farmers against any fraudulent attempts to steal our reputation.

BE SURE YOU GET THE

"GENUINE ADRIANCE BUCKEYE,"

ADRIANCE, PLATT & CO.

Size B Cuts a Swath of 4 feet 3 inches.

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THE ADRIANCE REAPER Cuts a Swath of 5 feet.



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CONVENIENCE AND CERTAINTY OF PROCURING FIXTURES FOR REPAIRS are very important points for a farmer to consider when selecting a machine.

We caution farmers against buying Mowers on account of the CHEAPNESS IN PRICE. The failures in the past few years of manufacturers who tried to put CHEAP machines on the market have caused trouble in getting extra parts for such machines as were sold, and have fully demonstrated the truth of the old axiom,

"The Best is the Cheapest."

AND THE "BEST" IS

The "BUCKEYE."

Each MOWER is furnished with Two Complete Scythes, Two Extra Knife Sections, Two Extra Guard Fingers, etc.

Each REAPER is furnished with Two Complete Scythes (or sickles, if preferred), Two Extra Knife Sections and Two Extra Guard Fingers, etc.

Screw Wrench, Punch, Cold Chisel, Oil Can, Bolts, Rivets, etc., and Whiffletrees and Neck Yoke, furnished with EACH Mower or Reaper.

Send for Special "BUCKEYE" Descriptive Pamphlet with prices for 1889.

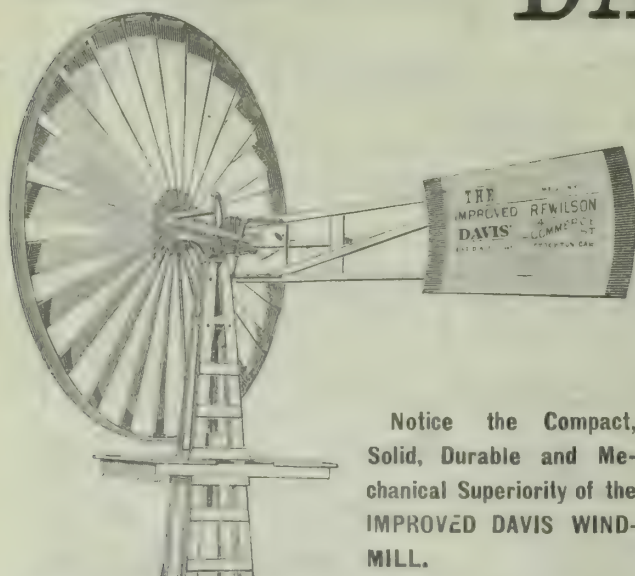
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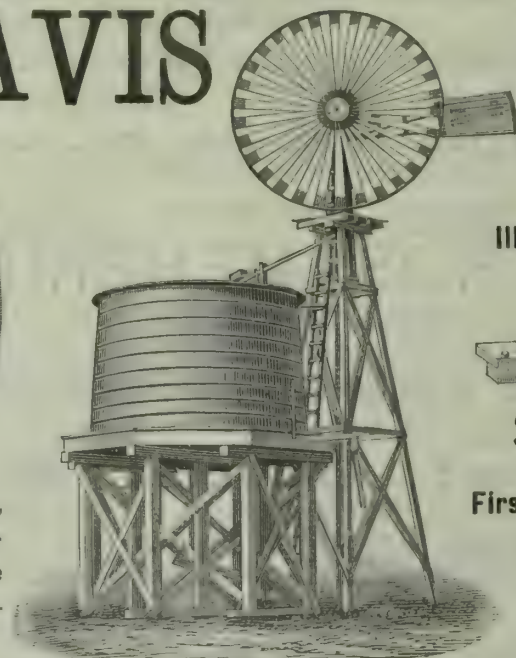
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Notice the Compact, Solid, Durable and Mechanical Superiority of the IMPROVED DAVIS WINDMILL.



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TO THE

First Three Purchasers

In any place where my Windmill is not now in use.



I WILL PLACE THE IMPROVED DAVIS ON EVERY HOME IN THE STATE.

READ WHAT PEOPLE SAY WHO HAVE USED IT.

STOCKTON, CAL., March 5, 1889.—R. F. WILSON—DEAR SIR: I consider the Improved Davis Windmill superior to all other Windmills. It will run with very little wind, is very simple and compact in construction, does its work well, and is a good regulator. One of the best points is that there is no expense for repairs, and very little attention as to keeping the bolts tight, there being less bolts in it than any mill I ever saw. The storms do not injure it in the least, as it will turn away from the wind when it blows a gale, and will return and face it when the wind is moderate. It is strong, simple, durable and a good regulator. Yours truly,

J. L. BEECHER, President Farmers' Union, Stockton, Cal.

STOCKTON, CAL., March 3, 1889.—R. F. WILSON—DEAR SIR: I pronounce your Improved Davis Irrigating Windmill superior to all other kinds. The amount of water they will pump is wonderful. They are splendid regulators. Yours respectfully,

J. M. WELSH, Manager Stockton Milling Company.

Rattletrap Windmills Doomed!

You cannot resist buying when you get my prices. Do not listen to parties who have more gab than brains. Get informed through disinterested parties. The Improved Davis has driven all competitors from the great San Joaquin Valley.

IRRIGATING WINDMILLS A SPECIALTY. PUMPS, TANKS, HORSE POWERS, Etc.

P. O. Box 126.
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PACIFIC RURAL PRESS

TWENTY-EIGHT PAGE EDITION.

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SAN FRANCISCO, SATURDAY, MARCH 23, 1889.

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SINGLE COPIES, 10 CTS.

Another Bearing Date Palm.

In our issue of February 2d we gave a large photo-facsimile of a bearing date palm and its companion staminate tree in the garden of J. R. Wolfskill, near Winters. The facts there recited concerning the date palm in California

children. The interest centers in the row of date palms which are the most prominent feature of the picture. These trees sprang from the seed of the date of commerce and still stand in nursery row as they were first set out. The first fruit was borne in 1877 when the tree was about 12 years old, the date of bearing and

As the engraving indicates, the trees have suffered by their close association in the row, and are not as shapely as the trees in John Wolfskill's garden, where they have more room and rather better treatment.

The picture shows the tree in fruit, its heavy clusters emerging from the base of the leaves.

AID FOR CHINA.—The Government of China has for the first time been compelled to make an appeal to America for aid in relieving the sufferings of her subjects. Floods and drouth have wrought terrible havoc in three of the largest districts of the Celestial Empire. It is reported that in a single district—that of Hoi



BEARING DATE PALM ON THE FARM OF MRS. S. O. WOLFSKILL, NEAR WINTERS, CAL

have also a bearing upon the handsome engraving on this page, and the reader is referred to them.

The picture presented herewith is a reproduction by the Dewey Engraving Co. of a photograph taken last fall by W. R. Nutting. The observer looks toward the northwest and the distant hill-outline is the crest of the Coast Range northward of Putah canyon. The foreground is on the farm of the late S. O. Wolfskill, now owned and conducted by his wife and

the age of the trees agreeing closely with the fruiting of the tree shown in our issue of February 2d. It was the fruit from one of the trees in this picture which was shown by the Rural Press at the Mechanics' Fair of 1877 as the first California grown date brought to public notice. It was one of the trees from this row which was taken up by W. G. Klee, and planted out on the grounds of the New Orleans World's Fair in 1885, the tree surviving well its removal and long journey to Louisiana.

The fruit in this case is a bright yellow, rather more than an inch in length, and it is a later maturing variety than the tree shown in our earlier engraving. Some seasons are, however, propitious for its ripening, and the fruit is highly esteemed by the family.

MARIPOSA people are discussing the formation of an irrigation district under the Wright law to obtain the water of the south fork of the Merced river for local use.

—half a million persons are in a state of starvation. The Chinese merchants responded promptly to the cry of distress from Chicago, Charleston and other cities of America visited with disaster, and now hope for a liberal response to this appeal.

ABOUT 100 of the veterans have been transferred from Yountville, Napa county, to the National Veterans' Home at Santa Monica. There are still left at Yountville about 250 men.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Napa County Notes.

EDITORS PRESS:—Never was there a more brilliant prospect for good crops of cereals and fruits of all kinds in this county than at present. Because we have had not one old-fashioned storm this winter, and because the rainfall was, up to the first of this month, much below the average, some prophets thought the season would be a dry one. But since the 8th inst. warm, heavy and very welcome showers have soaked the ground that was not yet suffering for moisture, and now an abundant harvest is assured. The rainfall to date is about 14 or 15 inches.

But be seasons ever so dry and short crops the rule in other portions of the State, Napa valley is always sure; has never been known to fail. Now the season has so far advanced, the days are so warm, and the earth is so moist, grain is growing very fast. Early-sown fields have been, in several instances, mowed because the grain was so rank. Late sowing looks fairly well.

What a glorious winter this has been! We've had no driving storms, no high winds, no frosts to speak of, and much of the time the days have been "like days in June."

The orchardists and the vineyardists are busy, and their work is well advanced. Notwithstanding the low prices for dried fruit that have ruled for some time past, our fruit-growers are full of hope. New orchards are planted, old ones enlarged, and more interest manifested in this branch of farming than ever before. We note, along this line, that the spraying of fruit trees is practiced in many orchards this spring where little or no attention was paid to this pest eradicator heretofore. Then again, as a general thing, only the most approved varieties have been planted. Long since the stock of our local nurserymen ran low.

Both grape-raisers and orchardists see more and more the value of underdraining low places, and this spring a large quantity of tile has been laid. That put down in years past proved of much benefit both to grain lands as well as to vineyards and orchards.

It has been decided to reopen the large fruit cannery at Napa City this season, and this will afford a home market for much of our fruit, than which there is no better raised. The cannery will be under new management and it is expected a large amount of fruit will be put up. This will stimulate our fruit-growers to greater efforts, for with the exception of one year our valley orchardists have had to seek other markets for much of their produce.

Our agricultural fair will be held this year in August, and already preparations have been made that insure its success. The fair of last year surprised even the most enthusiastic friends of the association by its success, and to the coming fair much attention is given. Undoubtedly it will be one of the most noted held in the State, as was the last one, which also was the first one. Already a large number of entries of fine horses from various sections of the State have been made. One result of the fair last year is seen in the desire more than ever to improve the breed of horses in the county. There is no reason why Napa county should not raise as fine horses as any other county, and she probably will. Of late years quite a number of thoroughbred Norman stallions have been purchased by residents of the county and some fine colts have been reared. But there is a desire on the part of many farmers, as well as others, to raise roadsters or horses of all work not so heavy or cumbersome as the Normans. Yet large horses will always be in demand. No finer truck teams can be seen anywhere in the State than are daily at work in the streets of Napa City.

An imported Clydesdale stallion has been purchased recently by one of our horse-breeders, the first stallion of this breed that has been in the valley for some years. The admirers of the Normans will still breed these noble horses, but there are those who, while thinking that the two breeds in many ways resemble one another, prefer for various reasons the Clydesdales. As regards the rearing of cattle, although many are raised in the county annually, not so much attention is paid to raising blooded stock as is given to the rearing of horses. There are a few exceptions.

Evidently the railroad officials anticipate a busy time on the road running through this valley this season, for new side tracks are being laid at different points and the roadbed put in excellent shape. The amount of freight hauled over the road last season was very large, and it has been said that this road is the best paying one, considering its length, in the State. All this shows that the amount of our produce is increasing, that our population is being added to continually, and that the county is in a sound, healthy condition.

Knowing as we do our advantages, we sometimes wonder we do not have a large influx of Eastern people who desire homes in our genial climate. We are off the main line of travel is one reason. Little real estate outside our towns has changed hands since last December, but it is not because there are no farms for sale.

Considerable hay is still held by farmers and others in all portions of this valley, for the reason that prices have ruled low since last

harvest. Much of it will have to be marketed soon or held over, for the haying season is not very far off and the prospects for a large yield are good. In this connection it might not be out of place here to say that stock have never before been wintered with so little trouble as this season. Since the 15th of last November grass has been plentiful on the hills, and we have had no real cold, frosty weather.

A little work in brightening up farm buildings and yards at this season of the year when there are days when regular farm work is slack, pays many per cent in every way. A dollar or two spent for lime for whitewash will be money well spent. Especially does this apply to those desiring to sell their farms. May I give your readers a good recipe for

Durable and Brilliant Whitewash?

One-half bushel good lime, five pounds rock salt, dissolved; one-half pound whiting, four pounds ground rice, boiled to a thin paste; one-half pound clean grease. Slack the lime in a tight box or barrel with hot water, keeping the box covered that the steam may not escape. It can be tinted if desired. Slack to the consistency of thick cream. Thin it when used, so that it will flow freely from the brush. If put on too thick it will flake off more or less when dried.

The above is for outside work. For indoors, slack the lime as above with hot water, omitting the salt, grease and rice. Instead of thinning the creamy solution with water, use skim milk. This latter is a secret worth knowing.

As I close this letter, heavy and continuous showers, accompanied with considerable wind, are falling, and there is a prospect that our open ditches may be filled for the first time this winter.

Napa, March 11, 1889.

Hollister and Vicinity.

EDITORS PRESS:—It seems to be a distinguishing peculiarity of Californians, be they residents of the extreme north or the south, the Sierra range or the coast counties, to estimate the advantages of their locality above those of every other, and the people of Hollister are no exception to this rule. As a disinterested traveler, your correspondent has no disposition to quarrel with them on this score, and after a careful inspection made on a recent visit to this thriving town and surrounding country, is prepared to accord them much of the credit which they claim to be due their portion of the State.

The town of Hollister, besides being the capital of San Benito county, with a fine new courthouse and other creditable public and private buildings, is the commercial center for a large settlement extending in all directions, and is connected by a narrow gauge railroad with the S. P. R. R. at Gilroy, 14 miles westward. The San Felipe district, 5 or 6 miles north, has become famous not only as an artesian belt, but for the excellence of its soil and enterprising character of its inhabitants. Among the residents is a goodly number of devoted friends of the Rural. On my visit I was hospitably entertained at the princely homestead of Messrs. Donnelly & Dunn, which is gaining considerable notoriety as a farm for the rearing of fine horses, embracing roadsters and trotters. The ranch consists of about 17,000 acres, and from the excellent pasturage afforded upward of 1000 head of beef cattle are marketed annually. Col. Burns, an intelligent and obliging gentleman, is manager of this farm.

I also passed a night at the Ansoymas rancho adjoining Donnelly & Dunn's, Y. Malarin manager. It contains 18,000 acres, 5000 of which is valley, the remainder hill-pasture land. The ranch was located in 1835 by the Pacheos. It is adorned by an adobe dwelling of monstrous proportions, which, though erected in the long ago, is still in as good condition as ever. The proprietor devotes his chief attention to stock raising, and takes pride in pointing out to visitors blooded specimens of the horse family that are certainly a credit to his scientific method of breeding.

Along the foothills of the Gabilan range south of Hollister considerable attention is being paid to the propagation of fruits and with most gratifying results. The soil is of a sandy loam, easily worked and wonderfully productive—especially that verging the valley along San Benito creek. One of the most thrifty orchards just beginning to reward its owner with fruit crops is that of Geo. T. Elliott. The writer will not soon forget the pleasant evening spent at Mr. Elliott's homelike dwelling, and acknowledges his obligations for valuable assistance rendered by this gentleman in the re-establishment of Hollister Grange.

The Bonnie Brae farm, about 2½ miles south of town, owned by Cunningham, Curtis & Welch of San Francisco, promises in many respects to become a model fruit farm of the county. It consists of 365 acres, 175 acres of which is now planted with trees and vines. Mr. Scholefield is also a stockholder in the property and is its efficient manager.

Around old San Juan, seven miles south, is to be found some of the finest land in the county, and here are some good farmers, among them the Breens, who, by the way, it may be interesting to note, were of the Donner party, a number of whom shared such tragic fate as emigrants at Donner lake in 1847.

There is also something of interest about the old town of San Juan, for here stands the old mission church, built in 1797, in fair state of

preservation. It is a pity that the place is not connected by railway, for it has every other necessary feature to make it a thriving commercial center.

F. B. L.

THE FIELD.

Ordinance Against the Squirrels.

The Contra Costa farmers are still at work against the squirrel nuisance. The Martinez Gazette of March 6th has the following:

Next Saturday afternoon a mass meeting is called at Bennett's hall, in Martinez, to discuss the squirrel question generally, and to consider the draft of a squirrel enactment that will be presented to the Board of Supervisors at their meeting on the 15th inst. for adoption. It would be a mere waste of words to enlarge upon the importance, and indeed actual necessity, of checking the squirrel nuisance, or as we believe to be wholly practicable, of so nearly annihilating them that their depredations shall cease to be a source of serious loss, and their numbers so small as to be easily controlled. The situation is so universally admitted that no argument is required. The only point of contention is how unity of action can best be secured, and a system developed that will secure the cooperation of the farmers generally, without which anything like practical extermination is wholly out of the question.

The committee appointed at the last meeting has been working in connection with the District Attorney in framing an ordinance, which will be submitted to the meeting on Saturday next for its approval. If it meets the views of those present, it will then be presented to the Board of Supervisors with the request that it be adopted and become a law. In order that full opportunity may be given for examining its features, we publish below the draft of the instrument in its present shape, and strongly urge every farmer, vineyardist, fruit-grower, and all others who have suffered by the squirrel pest, to be present and give their indorsement to the measure proposed. The following is the ordinance:

An Ordinance to Provide for the Extermination of Squirrels in Contra Costa County.

The Board of Supervisors of Contra Costa County do hereby ordain as follows:

SECTION 1. The County of Contra Costa is hereby for the purposes and objects of this ordinance divided into districts, the boundaries of which districts shall be the same as the several school districts of said County, and each of said districts shall be designated Squirrel District _____ (the name applied to the school districts respectively.)

SEC. 2. In each of said districts the Board of Supervisors shall within _____ days after the time of the taking effect of this Ordinance, appoint one or more Squirrel Inspectors for said district, as the extent of said district and the duties therein to be performed may in their judgment require. The person so appointed must be a qualified elector of the district for which he is appointed and a freeholder therein, and shall within ten days after his appointment execute a bond to the County of Contra Costa in the sum of two thousand dollars for the faithful discharge of his duties under this Ordinance, and take the usual oath of office. The said bond shall be executed in all respects as other official bonds of district and township officers are required to be executed, and the sureties thereon shall justify in like manner, and shall be required to have like qualifications. The bond when executed shall be approved by the County Clerk and filed in his office.

SEC. 3. All land in the County of Contra Costa, taxable therein, shall by the Squirrel Inspectors of the said several districts, one County Inspector and one elector and freeholder in said district, be graded in four grades as follows, to wit: 1st, Free; 2d, Nearly Free; 3d, Medium; 4th, Badly Infested. Which grading shall be done between the first day of July and the fifteenth day of September in each year, and the owner or occupant of said land or the agent of the owner thereof notified of such grading within five days thereafter.

SEC. 4. It is hereby made the duty of every land-owner in said County to commence to thoroughly exterminate the squirrels on his land on or before the 1st day of October in each year, and if he shall fail or neglect to do so before the 15th day of the same month, then it shall be the duty of the Squirrel Inspector of the District in which said land is located to enter upon the said land and thoroughly exterminate the squirrels thereon; and he shall for that purpose have full right and authority to enter upon all lands in this county for that purpose and full power to arrest any and all persons obstructing him in the discharge of his duties.

SEC. 5. For all lands graded as "Free," the owner shall not be entitled to receive any sum for exterminating squirrels. For lands graded as "Nearly Free," the owner shall receive five cents per acre for exterminating squirrels thereon. For lands graded as "Medium," the owner shall be entitled to receive ten cents per acre for exterminating the squirrels thereon, and for lands graded as "Badly Infested," the owner shall be entitled to receive 15 cents per acre for exterminating the squirrels thereon, provided he in each case shall exterminate the same within the time last before specified, and perform such work thoroughly and effectually and to the satisfaction of the inspector of the district and at least two-thirds of the land-owners surrounding said land. In cases where the land-owner shall fail to poison the squirrels on his land, and the same shall be done by the Squirrel Inspector, that officer shall receive the compensation allowed land-owners for such poisoning.

SEC. 6. It shall be the duty of the Inspector of, and two land-owners adjoining each of the said districts, after the 1st day of February in each year, to inspect the lands of the several land-owners in their district, and to give to each land-owner who shall have thoroughly and effectually poisoned and exterminated the squirrels on his land a certificate signed by two or more land-owners adjoining said

lands of the fact of such extermination, stating therein the number of acres on which said poisoning has been done and the grade thereof, which certificate shall entitle the said land-owner to receive from the County Clerk a requisition on the County Auditor for the sum to which he shall be entitled, as shown by such certificate, on the surrender thereof to the said Clerk. All payments herein provided for shall be paid out of the general funds of the County, in the order of their presentation. The Inspector of each district shall receive \$3 per day for each day in which he shall be engaged in the inspection of the lands of his district, for which service he shall file a claim against the County duly verified as other claims against the County are required to be verified, which shall be allowed by the Board of Supervisors and ordered paid out of the general fund of the County.

The Broomcorn Industry.

[Written for the Rural Press by J. R. F.]

The cultivation of broomcorn in this State ought, if properly carried on, to be quite remunerative. The population of the coast is increasing at a rapid rate, while the trade with the countries washed by the Pacific ocean is not only large but steadily growing. This calls for a larger consumption of brooms, and also for more broomcorn seed for feed. The consumption in this State of the former is placed at about 950 tons for last year, while for the coast it is claimed by those in position to know that it aggregates fully 1200 tons, equivalent to 1,080,000 dozen of brooms. Last year there was exported to Australia 795,000 pounds of broomcorn and 78,000 pounds to New Zealand. Total, 873,000 pounds, or 436½ tons. This gives a requirement last year for this coast of, in even numbers, 1600 tons. As the crop in this State did not aggregate more than 500 tons, the imports from the Central States must necessarily have been fully 1100 tons. This quantity should have been raised here, for there are many sections in this State well adapted to its cultivation. To bring the broomcorn from the Central States to this city the freight by the car-load is \$50 a ton. The cost of the broomcorn in Chicago ranged last year from \$35 to \$50 a ton for damaged or stain, and common grades to fair grades, and from \$55 to \$80 for barely good to the more choice. Adding first cost and freight together, it will be seen that there is a decided margin in favor of the California product—quality being equal. Last year the crop in the Central States was a full average for the common grades, but light for the more choice long fibered. The large crop of common to fair was necessarily against prices owing to more selling pressure, therefore the general average ranges, as given above, are below those that obtain during a short crop season.

Last year in this State the outturn was below an average with the quality generally poor, yet notwithstanding this the price paid was quite satisfactory, ranging from \$65 to \$80 a ton according to quality. About all harvested was allowed to ripen too much, probably, to save the seed, which commands on an average in our market \$15 a ton. The brush was generally dead and colorless, not possessing that lively, bright green color so greatly desired by manufacturers of brooms. Besides this, much of it was curly or "gnarly," which was also against its market value. It is claimed that at about the most critical period of its growth there was an absence of rain which retarded its growth and produced a poorer grade, for the bulk was short fibered and curly, and difficult to work in satisfactorily.

From Mr. N. Plancich of Zan & Plancich, broom manufacturers of this city, the writer obtains the following:

The crop last year was light, owing to a dry season, while the brush was generally short and overripe. In regard to the raising of broomcorn, he says that the plant thrives best in the interior, distant not less than 125 miles from the coast. The soil best adapted to its growth is the rich and loamy bottom land—river, tule, or slough—and the climate warm, particularly at night. Broomcorn grown near the ocean is short or curly, and not fit for use. The same remarks apply to it when seeded on either rolling or highland. The seeding is done with a drill, and at the same depth as wheat is sown. The rows are not as far apart as are those of corn. If the plants are too thick they should be thinned by pulling up the more delicate.

In answer to the writer's inquiries, Mr. Plancich said that the broomcorn from the Central States cost laid down here from \$110 to \$125 a ton for the larger and fine fibered, called self-working, while for the long fibered Californian the price runs from \$75 to \$80 a ton. That is the difference this season. Why the difference is so great is explained by him to be the selecting and quality. The imported is long, green, and fine fibered, while the California is long, colorless, and generally poorly selected. The growers in the Central States assort their brush, putting each grade by itself and baling them separately, while here, as a rule, very little attention is given to assorting; consequently the price paid is less proportionately than if the grades were carefully selected and baled separately.

Mr. Plancich says that last year there was a light crop of hurl (long and straight) broomcorn both here and in the Central States, and that the supply is already nearly exhausted; consequently for this kind high prices not only obtain, but still higher ranges are looked for in the near future.

In regard to the Australian demand, Mr.

Planch says that it is not only large, but steadily growing. He also states that to be abreast of the times his firm has established a broom factory at Melbourne, taking from here American workmen. He says that if the venture proves a success, they will establish another factory at Sydney. All the brush used in the manufacture of brooms is to be sent from this city.

THE STOCK YARD.

Live-Stock Fairs and Movements.

EDITORS PRESS:—The Illinois State Board of Agriculture having determined to discontinue the horse show heretofore held in connection with the American Fat-Stock Show, now turns its attention to the encouragement of the beef and dairy cattle interests. Herd prizes of \$150, \$75 and \$50 will be given the following breeds: Shorthorns, Herefords, Devons, Angus, Galloway, Sussex, Red Polled, Holstein, Jersey and Ayrshire. A competing herd shall consist of one bull two years old or over, one cow three years old or over, one heifer two years and under three years old, one heifer one year and under two years old, one heifer under one year old. The management of this part of the exhibition will be in the hands of Hon. La Fayette Funk.

The Illinois State Board of Agriculture will offer also at the American Dairy Show, in connection with the Fat-Stock Show, November next, three milk test prizes of \$50, \$25 and \$15. For these, all recorded breeds of cattle may compete. They will be judged by the milk product of three successive milkings, the value of the milk to be estimated from the weight and tested butter qualities. Hon. E. E. Chester will have charge of this department. In addition to the above the American Shorthorn Breeders' Association places at the disposal of the Illinois State Board \$250 for the encouragement of dairy qualities in Shorthorn cattle.

From the new secretary of the State Board, I learn that the premium-list for the Illinois State Fair is ready for the printer and will be issued by the first of April.

Applications for membership in the American Southdown Association are coming in at an encouraging rate. C. J. Bailey of Maine, M. D. Hartshorn and L. C. Anderson of Ohio are the latest. The list of members in the National Swine-Breeders' Association is also making a good growth. Another evidence of life and action among stock-breeders is the plan now under way by the Illinois Shorthorn Breeders' Association for placing an agent in the field whose special work it shall be to encourage the rearing and feeding of Shorthorn cattle. If the admirers of other breeds of improved stock will now show a like spirit of enterprise, the saying "the scrub must go" will soon be changed for "the scrub has gone." There will still be abundant room for the exercise of skill in improving even what we may then have.

Springfield Ill. PHIL THURFON.

Raising Calves.

EDITORS PRESS:—We have had some experience in stock-raising, and often people remark that our cattle seem to be larger than most of the cattle one sees on ranches.

I will tell how we manage to have our stock large and fine-looking. I think that the feeding and care they receive does more toward improving them than the breed does, though of course if one has a scrub or run-out breed of cattle, he cannot expect to raise fine stock from it. I believe that any breed of cattle will become scrubs if allowed to breed too young, as the heifer is not full grown until about two years of age, and consequently needs, until that age, all the strength she can derive from her food to develop with, and cannot thrive well when giving milk to support a calf. The result is both cow and calf are stunted.

We feed the calves by hand, providing them with a warm, sunny pen to run in, where they can nibble at the grass. At first we feed the calf new milk for about two weeks, then let the milk stand 12 hours and skim the cream off before feeding it to him. We then make a thin gruel of shorts, boiling it well before putting it in the milk, and use about half a pint of shorts at a time for the gruel. One sack of shorts ought to last two calves as long as they need be fed milk. The calves like this kind of feeding and thrive upon it.

We now put a bucket of water in the pen for him, fixing it securely so that he cannot spill it, and also give him a bunch of nice fresh hay very day to nibble at. When about a month old we let the milk stand 24 hours before skimming it, and put a muzzle on the calf and turn him loose to take his chances with the herd. He will come promptly up every night and morning and bleat for his breakfast and supper until four or five months old, when he will do quite nicely on grass without the milk.

I will give two remedies we find useful: For scours on calves.—Mix a handful of rouned flour in a pan of boiling milk; let it cool until lukewarm, then feed. Use this treatment twice a day until cured.

For bloat.—Give a teaspoonful of baking soda and one of ground ginger, dissolve in a little cold water; then mix into a quart of boiling

water, put in a bottle and turn down the calf's throat as hot as he can drink it. Rub the stomach briskly and keep him moving around. We have known calves suffering with bloat to be relieved almost instantly, while those which were not treated this way soon died. L. Z. Tres Pinos, Cal.

The Proposed Shorthorn Association.

EDITORS PRESS:—Mr. Peter Peterson some time since made mention through your columns of the necessity of the organization of a Shorthorn Breeders' Association. The proposition met with some favor, but has never assumed any definite shape. This is an age of co-operation, and unless the Shorthorn breeders of this coast avail themselves of such advantages, they cannot reasonably hope to keep abreast of the progressive men of the Eastern States.

There is no reason why we should not be able to produce such cattle in this State as will attract the fine breeders of the East. The breeders of horses on this coast have made a reputation for their stock and are now supplying quite a demand in the East. We have the same facilities possessed by the breeders of horses—why not improve them?

All those who think that the interest can be forwarded by such an organization will please communicate with me, and if sufficient numbers respond to warrant the attempt, we can arrange for a meeting for some time in April.

Colusa, Cal. E. A. BRIDGFORD.

[We trust this invitation of Judge Bridgford will be widely complied with, and then he can prepare a call for the meeting for publication in the Rural, so that all interested may be notified. —EDS. PRESS.]

THE DAIRY.

Co-operative Dairying—Cost of Creamery.

EDITORS PRESS:—In several papers lately I have read that efforts were being made to establish creameries in several localities in this State, and I have every reason to believe that such enterprises will pay as well in California as they do in the great dairy regions of Illinois, Iowa, Minnesota and Wisconsin, provided the same general care is exercised in this State as in those States. Those who are about to engage in such enterprises must not pay exorbitant prices for buildings and machinery, for if they do, the result will be disastrous. I am not sufficiently acquainted with the cost of building material in this State to say what would be a fair price for a creamery building, but in Illinois, a main creamery building is 20x40 feet; ice-house, 20x30; and boiler-room, 16x18 feet; and all the necessary machinery for making butter can be furnished for \$2000. Such a creamery has a capacity sufficient to manufacture from 700 to 1200 pounds of butter daily, and should greater capacity be required, adding to the width of the main building will give it. Building material may cost more in this State than it does in Illinois; if so, it will be an easy matter to figure the cost of a building of the above size.

A number of years ago professional creamery-builders visited various localities in Nebraska, Kansas, Iowa and Missouri, erecting buildings at a cost of \$5000 to \$7000, and the stockholders soon discovered that they were being outrageously fleeced by the charpers, and had nothing to show for their money except an expensive building.

Practical creamerymen saw through the scheme and exposed the ways of the professionals, and their occupation in that portion of the country was gone. Californians should guard against extravagant buildings and useless machinery; put up only such buildings as will be needed, and buy no more machinery than will be required.

California offers a remunerative field for co-operative dairying, if one may judge from the newspaper articles about the amount of butter imported from the other States. Take the county of Los Angeles for instance, which, according to a local paper, sends \$1,728,000 annually to other States for butter and cheese, and probably other counties send like amounts in proportion to population. This should not be, and doubtless there is capital and enterprise enough to grasp the situation and stop such an enormous outflow. Once demonstrate that dairy farming, intelligently carried on, will pay, and there will be plenty of men and capital to conduct the business. Do not think land is too high-priced for dairy farming; it is in some sections, but \$50, \$75, and even \$100 per acre land can be made to pay quite handsomely, if devoted to dairy farming; besides, the business adds to the value of the land. A few years ago a large portion of Northern Illinois was worn out and almost worthless from continuous wheat cropping, and the land could hardly be sold at any price. Farmers turned their attention to dairying, and soon a change was observed; the land, from frequent manuring, regained its richness; new and improved houses, commodious barns, better stock and a general appearance of thrift was everywhere visible, and to-day the old, worn-out lands of that section are held at from \$75 to

\$125 per acre, and all this brought about in a few years by dairying in a systematic manner.

In California, with hardly any cold weather, cows will do better than in the Northwestern States, and with silos, which can be cheaply built, green feed can be had the year round, and with the addition of roots, bran and grain, cows ought to net the owner from \$80 to \$100 each, and much more if they be good cows. The climate, too, is favorable for dairying, and a larger yield of cheese is had here than elsewhere, and I presume the same is true of butter.

There need be no fear of overdoing the butter business on the coast so long as such counties as Los Angeles send abroad annually nearly \$2,000,000 for butter and cheese. The establishment of creameries will do away with pickled butter, which at best is hardly fit for the table. It is difficult to detect rancidity in pickled butter, and of course it is lacking in that fine aromatic flavor so highly prized by all lovers of good butter, and which can only be had when the goods are fresh. The aim of dairymen in the Northwestern States is to get their butter into the market fresh from the churn, and the result is better prices than if the goods were pickled or held for an advance in prices.

Speaking of dairying in Northern Illinois, the Chicago Tribune of a recent date says:

"Few people have an idea of the amount of butter which is handled by the dealers of the handsome and flourishing little Illinois city of Elgin. There was a time, not so many years ago, when the rich farming country which is tributary to it was given up to the growing of wheat. The competition of the cheaper lands to the north and west made wheat-raising less profitable, and the farmers all took to dairying. The result is that in 1888 Elgin handled 17,195,578 pounds of butter and 4,369,000 pounds of cheese. The butter sold for \$3,009,020, the price per pound ranging from 19½ cents in June to 33 1-5 cents last December, when the price was run up beyond all bounds. The country around Elgin appears to have devoted itself too exclusively to butter. The cheese which it made brought on the average but five cents a pound—a low price for a first-class article. More pains in the making would probably have made the manufacture more profitable."

If the Tribune had known, it might have said the fault of the cheese was that it was made from skim milk, and was probably what is known as "filled cheese." Certainly it was not good, wholesome, rich, full-cream cheese, which is so desirable as a condiment and which is frequently used in lieu of meat. I hope California will never produce any of that abominable, indigestible skim cheese so prevalent in the Northwestern dairy section.

In all things pertaining to the dairy, exercise care and judgment and the best results will be obtained. R. P. MCGILINCY.

San Jose, Cal. March 11, 1889.

"Sapsago" (Schabzieger) Cheese.

This rare and curious cheese affords an instance of a corruption of language which completely covers and hides the true meaning. Sapsago is very clearly a corruption or derivative of the German term *Schabzieger*, from *Schaben* grated, and *Zieger* curd. This cheese is made in Switzerland, and chiefly in the canton of Glarus, where it is locally termed *fromage verte de Glaris* or green cheese of Glarus, by those who use the French language. It is somewhat like our pineapple cheese, a sort of double manufacture, the curd being put through a secondary process which gives to the product its peculiar character.

This cheese is made as follows: The milk, collected upon the mountain pastures, is skimmed and curdled in the usual manner. The curd is then put in vessels made of fir or spruce bark, pierced with holes through which the whey escapes. In this condition it is kept in the cool pure air of the high mountains until the autumn, when the herds are brought down to their winter quarters in the valleys. During this time a slow fermentation, moderated by the coolness, goes on in the curd. When the curd is removed to the valley farms it is put in sacks and loaded on to the wagons. On its arrival the sacks of curd are put in a press, heaped one upon the other, and squeezed to expel the remaining whey. The curd is left under pressure for three or four weeks. It is then ground in a mill, consisting of a circular trench or pit of cut stone closely joined and cemented. A strong vertical shaft of wood is fitted in the center and to this is fixed a stone roller of a truncated-conical shape, which weighs a ton and revolves slowly around the circular floor. When the curd is put into the mill it is mixed with two and one-half per cent of its weight of dried and pulverized leaves of a species of *Trifolium*, having deep blue or purple blossoms, locally called blue melilot (but more probably *Trifolium alpinum*), and four to five per cent of salt. During the grinding or crushing, the attendant takes care that the work is evenly done and the curd is passed repeatedly under the roller and ground to a smooth paste. The curd is then shoveled out of the mill into a shallow vat, from which it is put into molds of the form of a truncated cone, of various sizes, from one pound upward. The patty curd is pressed into the molds by a pestle of hard wood; and for the easy removal of the sticky paste the mold is smeared with sweet oil and then lined with a cloth. As soon as the

cheeses are firmly set they are taken from the molds and placed in drying-rooms on shelves, where they are carefully guarded against contact with air currents by which the cheeses would be cracked and made to crumble from excessive dryness. The drying continues for a year or more, until the cheeses are quite hard.

The Schabzieger cheese is of a clear green color. The largest cheeses found in the Paris market, where they are mostly sold, are about four inches in height and the same in diameter, and they sell for 65 cents per kilogram, or about 27 cents per pound. They are served at the table grated and are eaten with pastry, pies, or with fruit, at the dessert. Their odor is strong, and it requires—for most persons—a considerable training before the palate and stomach become accustomed to the peculiar smell and flavor. This cheese has been an article of manufacture and trade in Switzerland for more than 300 years.—H. Stewart in American Agriculturist.

METEOROLOGICAL.

The Laws of Storms.

Meteorologists are not yet agreed regarding the laws that govern the origin of storms. Storms of all kinds, whether they are called tornadoes, hurricanes, cyclones, or typhoons, present in a general way the same phenomena, that there is an area of light atmosphere, or low barometer, as it is called, toward which the air rushes from all sides to fill the vacuum, thus producing a whirling movement near the center. There is at the same time a motion forward in a given direction. The greater part of those who are within the range of a storm only feel the wind as blowing from a fixed quarter, especially when its diameter is great, and this may sometimes be 2000 miles. In the very center of a typhoon or cyclone there is a dead calm, which lasts but a few minutes, after which the object, be it a ship or village, finds itself in the midst of a conflict of the elements more terrible than ever. In this revolution of a storm around an upright axis the revolution is in the northern hemisphere from right to left, and in the southern hemisphere from left to right.

To understand a storm, it is always necessary to go back to first principles. Its origin is invariably near the equator, where, on account of the eastward movement of the earth, the winds have an apparent direction toward the west; but as the revolution of the surface of the earth north and south of the equator is less rapid, owing to its diminished diameter, as these air currents diverge therefrom they immediately take an apparent direction toward the east.

Given this law of air currents, it only remains to consider the great cause of storms, which is the unequal heating of the air over the earth's surface. Storms have their favorite routes of travel. No storm was ever known to travel from Boston to Philadelphia, from Chicago to St. Louis, or from Nashville to New Orleans; and when the word storm is used it means the storm center. Storms cross the Atlantic invariably from America to Europe and exhaust their force on the coasts of Great Britain and France, or not far in the interior. They never return by the same route.

When a large area of air near the surface of the earth has been heated to a high temperature, it rises, giving origin not only to the currents that rush in from all sides, but causing a mass of the colder air to fall from the upper strata of the atmosphere. It is principally this cold air falling from above that produces relief after a heated term, after a thunder-storm or during a hot summer night. People say after a summer shower, "The rain has cooled the air." This is a fallacy, for it is not the rain that cooled the air, but the cool air falling from the upper strata of the atmosphere, or in some cases coming from a cooler, northern latitude.

According to the theory of M. Faye, into an air vacuum at the surface of the earth falls one of the eddies already formed in the upper stratum of the atmosphere. The rotary motion increases in velocity as it descends, not only from causes inherent in itself, but because the conditions of the lower air are favorable to the propagation of the circular movement. Hence result the storms that are most terrible in their effects, such as the cyclones of the West, the cyclones of the Indian ocean, and the typhoons of the China seas. It would, perhaps, be too much to assert that were it not for these upper currents and eddies there would be no cyclones, for the lower stratum of atmosphere appears to contain all the conditions necessary to their formation; but it is certain now, as it always has been, that the descending currents produce violent complications.

Sailors assert that the wind blows in certain cases straight downward. They have not only felt it, but they say that it is the cause of that condition of the sea when the waves seem beaten flat upon its surface. It is useless to understand the nature of air currents and the cause of storms unless the knowledge assists in navigating the ocean, and in the protection of life and property by sea as well as on land. In this study of the weather it is pleasant to know that this country has always taken and still maintains the lead, simply because as a practical people we approach the subject from its practical side.—S. F. Chronicle.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Butte Mt. Pomona, Masonic hall, Yuba City...Mar. 20
 Sacramento Co. Pomona, Grangers' Hall, Sac...Mar. 20
 Executive Committee State Grange, 220 Market St., S. F.Apr. 2 and 10
 Deputies' Meeting, 220 Market St., S. F.Apr. 11
 Sonoma Co. Pomona, Grange hall, Santa Rosa...Apr. 17
 Yuba City Grange Picnic,May 11
 San Joaquin Co. Pomona, Lodi hall, LodiMay 25
 State Grange, Sacramento.....Oct. 1

Oregon.

Lane Co. Pomona Mt. Holly Grange.....May 4
 State Grange, Salem.....May 28

The Deputy Meeting.

We are glad to notice interest taken in this coming meeting. There are timely reasons why it is likely to prove a gathering of importance. We are now adopting the new ritual in many of our Granges. There is every prospect of our having the National Grange held in California, which (through conferring the sixth and seventh degrees and other advantages) means new education and life to our whole Order on this coast. We have commenced the reorganization of Granges in good earnest in the southern part of our State, and we wish the good work continued and extended all over our State and coast.

There are many things of deep importance to Patrons which cannot be published in the press, or wisely sent out in circulars, that may properly be discussed in the State meeting of Deputies, and information taken therefrom and given from word of mouth to all Patrons in their subordinate Granges.

These are some of the reasons which make this meeting one of importance. Let every live Granger see that the subject of this meeting is brought before his subordinate Grange and discussed, and some plan provided whereby one or more representatives, as visitors at least, may be present to help make the meeting a success. All Patrons who can identify themselves as in good standing we understand will be admitted as honorary members at least.

We have hastily written the headings of some subjects, which we think might be profitably discussed, in order to induce Patrons generally to consider the matter, and, if possible, suggest other subjects for consideration at the meeting, not expecting our suggestions will be, by any means, the final or formal order of exercises.

Exercises Suggested.

1. Report of the Worthy Master.
2. Reports of the General Deputies.
3. Reports of the Deputy Lecturers.
4. Report of the Legislative Committee.
5. Consideration of the letter of the Worthy Master of the National Grange concerning the organization of a Grange Inspection Board, to visit and encourage Granges in different parts of the State.

SUBJECTS FOR CONSIDERATION.

6. Matters relating to the meeting of the National Grange.
7. The best plan of action for increasing the number of Granges in this State.
8. The best plan for adding new members to the Granges already organized.
9. Arranging the best dates for subordinate Grange and union Grange picnics for the convenient attendance of speakers and to make them all a success.
10. The matter of an excursion to Oregon.
11. Plans for co-operation in making purchases.
12. Questions and decisions relating to the work of the new combined ritual.

The meeting is to be virtually one of conference for the good of the Order. Let every one see that his part is done to make it of practical value, and therefore a success. Send your suggestions to the Press.

The meeting will be held at the office of the State Secretary, 220 Market street, San Francisco, at 10 A. M., Thursday, April 11th.

Executive Committee Meetings.

The Executive Committee of the State Grange of California will convene at the office of the Secretary of the State Grange, San Francisco, at 2 P. M. Wednesday, April 10, 1889, for such business as may properly be brought before the body.

The regular semi-annual meeting occurs at the same place on Tuesday, April 2d, at 10 A. M. It is more than likely that this meeting will be brief, or adjourned to Wednesday the week following, whether a quorum is present or not. Patrons or others having business or suggestions to present for consideration are invited to submit them either in writing or orally.

W. L. OVERHISER, M. S. G. of Cal.
 A. T. DEWEY, Sec.
 San Francisco, March 18, 1889.

From Bro. S. C. Carr.

The able Master of the Wisconsin State Grange has kindly complied with our request to give the readers of our paper some items of his homeward journey after his popular and helpful visitation to some of the California Granges, writing as follows:

We left Colton, Cal., on Saturday evening, Feb. 16th. At Yuma City we had a very pleasant 20 minutes' visit with Bro. E. W. Davis, Worthy Overseer of California State Grange. We hope his health will continue to improve so he will again be able to preach good Grange doctrine to the farmers of California. At El Paso, Texas, we crossed over the Rio Grande into Paso del Norte, Mexico, and went into the old church, said to be 300 years old. The town is old and dilapidated, and looks to be 300 years behind civilization. We saw mules, jacks and jennies, in droves driven through the crooked streets, loaded down with cordwood and merchandise, strapped on each side, which looked like pictures we have seen in ancient history.

At New Orleans we visited the cotton palace and sugar refinery, 10 stories high, which has 300 employes and turns out 1000 barrels of refined sugar each day. We were told it is in the Sugar Trust ring. The mint coins 1,000,000 silver dollars each month, besides some gold. The National cemetery, six miles below New Orleans, located on the Jackson battle-ground, contains 13 acres well fenced with a brick wall. In it 12,600 soldiers of the late war are buried. Five thousand of them are unknown bones and skeletons that were picked up upon battle-fields.

We left New Orleans February 26th, and in Tennessee we saw in one field five plows running with only one mule hitched to each plow driven by a negro. We thought this quite a contrast from California farming, where at Tulare an engine, with head and side lights upon it, draws 30 plows in a gang and runs night and day, turning over 80 acres every 24 hours.

On Friday, March 1st, we arrived at our home, two miles from Milton Junction, Wis., and found all well, with a little snow on the ground, not enough for sleighing, and melting fast.

We have traveled since January 3, 1889, 8400 miles, and enjoyed the hospitality of some of the best Patrons on earth; among them are the Worthy Master and Secretary of the California State Grange. This trip we shall always remember as the brightest oasis in our life.

S. C. CARR,
 Master Wisconsin State Grange.
 Milton Junction, Wis., March 2, 1889.

Injunctions Against Hydraulicers.

Ten owners of hydraulic mines in Shasta county have been served with U. S. injunctions restraining them from placing their debris in Cottonwood and Clear creeks or their tributaries, said tributaries being tributary to the Sacramento river and its navigable waters of the U. S. A private letter to the Federal authorities first drew their attention to the threatened injury to farming and navigation. An agent was sent to Shasta and Tehama counties by U. S. District Attorney Rhodes and the complaint was filed and injunction issued as a result of this report. It is stated as follows:

The Hardscrabble mine, owned and operated by the Merchants' Exchange Bank, S. F., is one of the largest in the State and uses an enormous quantity of water. It is located about a quarter of a mile east of the town of Igo and covers 1700 acres, about 160 of which have been mined off or worked out to an average depth of 30 or 40 feet. They take water out of the north fork of the Cottonwood, through a ditch 20 miles long, owned by the bank, called the Haywood ditch, costing about \$600,000 and having a capacity of 5000 to 6000 inches. Its grade is good. There were in use, on January 16th or 17th last, three No. 4 monitors with four-inch nozzles, piping against the rocky bottom of the 60-foot bank, which was composed of sand and loam soil, mixed with gravel and boulders. About 2000 inches of water, under 100-foot pressure, run day and night. They dump into Hardscrabble canyon, which runs nearly due east about one mile, where it empties into Clear creek, which runs the same course ten miles and empties into the Sacramento river about five miles below the town of Redding. There are a number of farms along this stream, and also upon the flat sloping ridge running easterly from Igo to the Sacramento river. This ridge is called "Happy Valley." Probably it was the intention of the bank to use this water for mining when it could without hindrance, and if prevented to furnish farms with water for irrigation.

Another mine was the Reagan, situated

on the left bank of the North Cottonwood creek, about 20 miles west of and above where said creek empties into the Sacramento river, and about one mile below and east of the village of Gas Point. Said mine contains about 240 acres of land, about 50 acres of which have been washed off, from two to ten feet deep, in former years, but no mining of any consequence has been done in this section of country, the inspector thought, for the past three years. This mine is owned and worked by James Reagan. He said that he had recently purchased monitors from Nevada county. The water used in said mine is about 100 inches, under about 60 feet pressure, taken from a ditch owned by Reagan, which has a capacity of 250 inches and a length of 24 miles, taking water out of the north fork of the Cottonwood. There were four Chinamen at work in the mine, using a No. 3 monitor, with a three-inch nozzle, against a ten-foot bank composed of a light loam soil mixed with sand and small stones. They dump directly into said creek. Mr. Reagan owns reservoirs which supply his five mines (three hydraulic and two sluice mines). He is also working two similar mines about one mile above said mine. One is situated at the head of a short ravine, known as Yankee ravine, through which it dumps into said creek. His third hydraulic mine is situated one-quarter of a mile north of the last named, and dumps directly into the north fork of the Cottonwood. This mine has no monitor, but uses a canvas hose.

Five hydraulic mines are operated by Chinese. Opposite the farm of Samuel Banks, on Cottonwood creek, Jas. S. Drew, Buck Rains and Chinese are operating a mine. The report goes on to say that Cottonwood creek is an important tributary of the Sacramento river. Its source is in the Bully Chooop mountains of the Coast Range, and it drains an area of 50 miles in length and 10 or 15 miles in width. In times of flood or high water it is a stream about 600 feet wide and 15 feet deep. The lower 20 miles of the stream pass through what is called Cottonwood valley, which is from one-half to one mile in width. The deposits in the channel of said creek, for the distance of twenty miles, I think have an average depth of six to eight feet, thus in a great measure injuring and destroying the grade of the creek and causing the banks to cave or wash in, and in that manner the 20 farms lying along the track of the creek are being injured. I was informed that 150 acres of B. H. Pickett's land at the mouth of said creek [have been destroyed?] and that Richard Owens and the estate of John Barry, deceased, whose farm lies next to that of Mr. Pickett, have each lost 100 acres, and that several farms above these have lost in like manner. I am informed that about 1500 acres lying in the area of this watershed have been washed off since the year 1850 from 2 to 20 feet deep. At the mouth of said creek, on the land of said Pickett, during the winter season of last year, a deposit of mining debris, consisting of sand, gravel and small stones, the larger ones being about the size of a man's fist, was made of about one-half mile long, 200 yards wide and 15 feet deep. The grade of the creek through this valley, I think, averages three to four feet per mile, yet the lowest estimate made by several farmers along the creek places it not less than eight feet to the mile. I think, from the information I could get, that the land being mined, for the most part, is Government land.

RAINED OFF THE TRACK.—It would seem as if our correspondents this week had been "rained under" or "switched off the track," as they have failed to come to our assistance in their usual good number. Remember, fellow-Patrons, that we cannot make a good paper without your constant help, and that you can hardly do the Order as much good in a half hour's work as by writing to and exchanging ideas with your fellow-Patrons through the Grange organ. While it may not pay you immediately, or in dollars and cents, you may be sure of your reward, and something better, too, than the metallic substance, in the good time coming. We have been unusually fortunate in having so many good and able correspondents heretofore, worthy and deserving of thanks.

WORTHY OF IMITATION.—Bennett Valley Grange has already forwarded its dues and quarterly report. This was received the 19th inst., and since it is nearly two weeks ahead of time, while many Granges are liable to be that far behind, we deem it worthy of special mention. It is a great accommodation to the Secretary to have the subordinate Granges report promptly. It is business, and as the Grange is a school to teach business habits, those who are tardy are losers like pupils who waste their time in school.

Sutter and Yuba Meeting.

Butte Pomona Grange, as noticed elsewhere to-day, will hold an open meeting of Patrons at Yuba City, Saturday, March 30th, to which all farmers and their families are invited.

We are not quite sure Bro. Woodman can remain so late while visiting Yuba City next week, but if he does not, there will be no lack of other able speakers present, the names of whom we will announce in our next issue.

Read the letter of one editor who is sensible and broad enough to write a first-rate communication for his neighbor's columns. Give his Grange a rousing turnout. We will guarantee the meeting will be a good success, as all Grange enterprises have proved in that quarter of the field.

San Jose Grange.

The third and fourth degrees will be conferred on a class of 12 or more under the combined ritual for men and women, meeting at 10 A. M., Saturday, March 23d, to be followed with a Harvest Feast. Past Master S. T. Coulter of Santa Rosa has accepted an invitation from us to be present. We presume Bro. J. T. Cobb, Secretary of the Wisconsin State Grange will also attend.

San Jose has a splendid official working force, and we congratulate the Grange on the accession of so many new Patrons to their active membership. Let there be a full turnout. Such gatherings are rare ones, and we expect another good report from the Garden City.

Right Royal.

The Patrons of Husbandry of the Pacific Coast are worthy of all praise for the excellence of their Grange organs and the material and style of art displayed in their makeup. The Pacific Rural Press, Grange Edition, is 16x12, with four wide columns, closely printed and finely illustrated, on finely glazed paper, of 28 large pages, and is published weekly at \$3 a year. Then they have the California Patron and Agriculturist, similar in size, style of workmanship, art and material, both papers profusely and richly illustrated, printed with fine, new type, the latter published monthly for \$1 a year. Both papers are brim full of news of general and local interest to the Patron and farmer. Both are published at 220 Market street, San Francisco, by A. T. Dewey, Secretary of the State Grange of California.—*Grange Bulletin, Toronto, Ont., Canada.*

CHAIRMAN COOLEY of the Interstate Commerce Commission has been using some strong language relative to the matter of export rates and the methods adopted by trunk lines for their computation. Those roads which faithfully adhered to the law lost nearly all their export business through the dishonesty of rival competitors. The following is a sample of the language referred to: "The time ought to be considered as gone by when a manager can come to us and say: 'I named this rate, and I did it regardless of the law, because my competitor had done the same thing.' There is no excuse for that practice. If a wrong is done by one road to the injury of another, the proper method of redress is not to duplicate the wrong, but to go before the committee in authority, whether it be the commission or voluntary association, with a complaint of the wrong. One crime in railroad circles is no more to be excused by another than one theft is to be justified by another."

COMMITTEE OF ENTERTAINMENT.—Gov. Waterman has appointed the following Board of Commissioners to prepare for and entertain the members of the National Grange, P. of H., at their next annual session: Wm. Johnston, Courtland; G. W. Hancock, Sacramento; W. L. Overbiser, Stockton; A. T. Dewey, San Francisco; and B. F. Walton, Yuba City. This is in accordance with the Act of the Legislature for an appropriation in event of holding the National session in California.

SPRINGTIME.—It is now the season of rapid growth of crops on the Pacific Slope. Patrons, cannot you make it the same for our Order? We hope to hear of new life springing up among our Granges in all quarters. Introduce some subject for discussion at your meetings and report for the benefit of the whole circle.

The month of January is said to have witnessed a larger gain in Grange membership in this State than in any previous month in the history of our Order.—*N. H. Patriot.*

Tourists Take Temescal.

Saturday, March 16th, was a *Field* day at Temescal. Patrons from the Atlantic Coast, from the Great Lakes and from the Rocky mountains had crossed our beautiful bay to visit their Pacific brethren.

All used the same signs, pressed the hand similarly, observed identical forms, because each had stood before a common altar and above the Holy Scriptures agreed to that obligation which makes us one common family.

Two were inducted by the combined ritual into the mysteries of Cultivator and Shepherdess, and Bro. Field of Maine made good his promise and entered by dimit.

The ball was opened under the head of "Good of the Order" by Bro. D. Woodman of Michigan, who paid a glowing tribute to the beauties and resources of California. He described the various sections which he had visited, the San Joaquin valley, his trip to Bro. Overhiser's, the Mojave, his sensations at Monterey, when, already electrified by the wonders and beauties he had seen, he found that which was still more wonderful. He alluded to San Francisco, comparing it to-day with the small cluster of houses which he saw from the top of Telegraph hill but a few years ago. Nothing but his advanced age kept him from breaking his old associations in Michigan and making a new home in this beautiful land. He gave a glowing account of his Grange, which was one of the oldest in Michigan, and eulogized the Order there. Instead of having only 10 Pomona Granges as reported, there were 36, and the Governor of the State was a good working member.

The next speaker was ex-Lecturer Edwards of the Colorado State Grange, who encouraged the Patrons by relating how the Grange in the Centennial State had held together when it had become so weak that it had lost its national representation. At last its courage was rewarded, new life was infused into it, and it was flourishing. The Grange organ there was mainly instrumental in this revival. Patrons in this State should rally to the support of the Grange edition of the Rural Press if they desired the Order to prosper. He recited the vicissitudes of Capital Grange, Denver, to cheer Temescal, which, as a town Grange, labored under similar difficulties. The P. of H. was stronger to-day because it was careful in choosing members. Formerly, lawyers and others joined because they thought they could make something out of it. Town Granges needed quality, not quantity.

Judge Gibson, who had been one of the newly initiated, when called to give his first impressions, did so in a remarkably cheerful and jovial speech. What he knew of the Order came mainly from his reading, and especially the paper published by Bro. Dewey. [A practical argument showing that Patrons should support their organ.—EDS.] He did not see why a lawyer could not be a good Patron, if he were otherwise eligible. He had been born on a farm and knew what the life was. He loved trees and was fond of animals. He gave an amusing account of his early farm life in Indiana. He thought one of the chief benefits of the Grange was its social and educational features. He laughingly described the awkwardness of the old-time farmer's lad. Agriculture was ennobling. Washington retired from the Presidency to a farm. When Daniel Webster was dying at Marshfield, he ordered his oxen driven up to the window that he could gaze upon them. Henry Clay farmed it at Ashland. Douglas called his servants and said: "Without property, there is no rest; without rest, no study; without study, no advancement." These were true words. The worthy brother supposed he owed his admission to the Order on account of his "coyote farm," for coyotes were the principal crop when he went there, but by hard labor (he believed he had done more wood-cutting than Gladstone) he had set out 3000 trees and 100 varieties; thus he made good his assertion that he was not lawyer enough to hurt. Country boys foolishly rushed to the city, and farmers' daughters would rather run their chances with a lawyer's clerk than to marry a farmer. By promoting the social features the Grange could prevent this.

Bro. Field, old in years, young in ideas, said home was one of the grandest words in the English language, if rightly conducted. He felt badly to leave his down-East home, but he considered that he had another here. How should we make this a happy home? By bringing home happiness here. Bring love and we should be the happiest family in California. We want young blood. Bring your children, if they have not already joined, and he would be glad to "tend the babies" a part of the time.

Bro. Dewey, who had been responsible for so much speech-making, had to take his

turn. He was asked to give an account of himself, as he had been absent for two or three meetings. He agreed that such an unusual event needed an explanation, but, although absent from his own Grange, yet he had been engaged in the good work elsewhere. Antelope valley and Tulare had been the objects of his visit. With the exception of "out of town" absences, he had not missed many meetings for years. This was a great day for Temescal, and he rejoiced. Heretofore he had been troubled because he had been obliged to report their meetings until they knew just what he would say. To-day he would look to another to discharge that duty. Young people would readily come to the Grange when they saw such cheerful old men in it as Bro. Field. He wanted the sisters to have a chance to say something.

The sisters thought enough had been said, and voted to hold a Harvest Feast on the third Saturday in April, when the third and fourth degrees will be conferred and Eden Grange will be invited to sit around the festive board and enjoy the occasion with them.

Savings Banks for Farmers.

MESSRS. EDITORS:—The paternal European Governments that are continually exhausting their people by taxation for war purposes have hit upon a most successful scheme to gather in the money of the people, and that is a Government savings bank in almost every postoffice. The immense sums thus intrusted to the Government are great elements to bind the people to their Government, and tend to link the two together. Some Americans ardently desire to see this instrumentality for teaching lessons quite as valuable, perhaps more important, than any taught in the public schools introduced into the United States, viz.: To teach the difficult task of saving pennies and thus acquiring habits of thrift and economy, habits which when once acquired are not likely to be forgotten. But there is an opposition to the adoption of this successfully worked scheme, founded on a judicious dread of loading the Government with too many functions (especially till we have civil service reform), and this constitutes a strong argument against having the United States Government operate a savings bank. If the legitimate functions of the postoffice could be utilized by some well-digested method, without confounding the operations of the postoffice with those of a savings bank, the objection referred to would be obviated.

The British postoffice has worked a plan successfully in its postoffice savings bank department, which promotes penny savings, and which yet obviates the trouble of receiving pennies. It gives out a form on which are 12 blank spaces for sticking 12 penny postage stamps; and this form, with 12 uncanceled stamps affixed, is received as cash for 12 pence when offered for deposit. The United States Government might issue a similar form with 10 blank spaces for pasting on 10 one-cent uncanceled stamps, and when these stamps are affixed, receive them back at any postoffice and pay the face value therefor. Thus penny savings would be promoted, while avoiding the difficulty of making our Government the custodian of the savings of the people. Corporate savings banks cannot exist at every cross-road store; but with this system they might spring up in the large towns all over the country, having agents in churches, schools, etc. These agents would receive the forms described, having the 10 stamps gummed on, from the depositors, and then remit the form to the central savings bank, which would then have the stamps redeemed. If on the form there were printed a legend, "Receivable for 10 cents at — postoffice, being amount deposited by — at — in — savings bank," the amount could not easily be diverted either from the credit of the person saving the money or from the savings bank intended. An extension of the system would be to have similar forms for 10-cent stamps, which when affixed would aggregate \$1. Of course the remittances to the depositors could be made in a similar manner. If the use of this or some similar device were once conceded, the savings bank, with all its advantages for the people, and with its capacity for training the poor and the young in the essential habits of thrift and economy, would be brought, as it were, to the very doors of our people all over the land. That the people earnestly desire to save, even the very poorest among them, is illustrated by the sums deposited in the Freedman's Bank by the once despised and much maligned slave. HORACE J. SMITH.

Montreux, Switzerland, Feb. 24, 1889.

DATE OF MEETING CHANGED.—Those who wish to visit American River Grange should remember that they have changed their time of meeting, according to the Secretary, Etta Carnell, to 2 P. M. until Nov. 1.

Let Us Learn to Think.

MESSRS. EDITORS:—When we read the State Secretary's report of the meeting of March 22d at Tulare Grange, we could not help but "smile a very guilty smile," partly for our own poor failure, but mainly for the Secretary, who could so coolly report things with so little foundation. Now more than ever since that day are we convinced that we can never "speak in meeting." That these convictions were accepted with some regret, and that a few sighs were "in at the death," we will not deny. Ah! what a dreadful thing is this "grim fear" which clutches and holds us so firmly when we would be brave. But here by our own hearthstone this dread can never be, so we will try to call back some of the thoughts which went astray on that day. Legislation was the subject, and, because we really knew nothing about it, we began by picking flaws with remarks we had heard some of the brothers make (in the past, of course, for they think differently now). One had said: "We need not be spending our time in trying to tell our legislators what to do. They understand law, and know better what we need than we ourselves do." A second brother had said: "I used to be so satisfied with our legislation, having faith that those learned bodies knew and would do all that should be done for us, that I did not think it necessary to question or investigate for myself." Should we carry out the views of the first, would we not bitterly wrong those whom we send to the Capitol to work for our interest? Should they fail to accomplish what we desire, we receive them with contempt and anger, and try to kill them politically. If they are ambitious and try to rise by joining some other faction, we call them names. We are thankful that the time is fast coming when to be open to conviction and to change one's mind will mean independent thought, and therefore progress.

Of the second remark, we can only say that this "perfect faith" in party and this habit of "not thinking" for ourselves have proved the greatest curse our nation has ever had to struggle under. For the past 20 years the farmer has plowed, sowed and reaped (if there were a harvest to reap), but he has not been "thinking." The political economy of our country has been left to a few. What is the result? The present concentration of our wealth, and the opposition of that great power against the advancement of agriculture and reform, have nearly ruined us. Produce has become so low that there is rarely ever a margin left with which to improve our homes, and we are happy if we make ends meet.

Our only recourse is to borrow, but money is so dear, worth about three dollars to our one in real-estate value; so we must swamp all to get a little relief. Then the interest! Can any man pay 12 per cent and prosper? Not a farmer, surely. Has the result of giving over our political economy into the hands of party politicians been a happy one?

Cannot Hire Thinkers.

We can employ men to work for us, but not to think for us; they are sure to forget us and think for themselves. This is only human nature. Men have been sent to high places, good men when they left us. We did not instruct them, much less send with them stanch men with whom they could counsel; we did not even follow them in our thoughts in a helpful way. They were soon surrounded by temptation. In a weak moment their honor was lost, and our hopes dashed to the ground. Whose is the blame? If we place a stumbling-block in their path, shall we complain if our public servants fall?

Shall we even raise an outcry against the parasites we have been supporting so long? No, for even they have only grasped the goods laid so temptingly before them. But let us shake them off. They have sapped the nation's veins, in the last twenty years, so successfully that they do not need us longer. We know this by the present low prices for produce and dear money. It is a public announcement to us that they do not need us. What does it all mean? Only this: More money and power to the few, and to us, loss of that for which our forefathers fought and which they gave us 113 years ago, the right to belong to a Government of which each man was a part, free and equal.

Let us not become discouraged, only warned. Let us look back only long enough to gather out of the wreck of the past those first grand principles laid down for us by our forefathers, and, warped and twisted though they have become under the hands of greed and ignorance, they wait us still, fair and pure as ever.

Men and matrons! can there be a better place than in the Grange to take up these first principles? to think for ourselves? to commune together and say what laws we

should or should not have? Let no man permit another to think for him. Meet and talk—even "agree to disagree"—that out of the clashing of ideas and patient reasoning may be found the firm rock or proper basis from which to work our interest forward. Tulare, March 15. S. A. M.

Interesting from Yuba City.

Compliments from Bro. Ohleyer, Editor "Sutter Farmer."

MESSRS. EDITORS:—It is a wise old saying, "It is never too late to do good," provided, of course, the good comes before it is too late. I have been wanting to congratulate you and the Executive Committee on the new order of things in the Patron office, as well as in the Rural Press. I had set my heart on the union of the two journals and the production of a Grange and agricultural messenger not equaled in America. To my surprise, this very thing has been accomplished, and without decapitating the Patron. I really believe both are greatly improved by the change, and I doubt not both will profit thereby. True the Patron comes only once a month, but when it comes it is brim full of good things for the Patron, the Grange, the family and the State. Then in its absence comes the Rural, larger and better than ever, with all the latest farm and Grange news, once a week. Again I congratulate the committee and the Order on the happy solution of a vexatious question. It is with exultant feelings one reads the accounts of the new awakening to Grange interests in this State. Let us hope that the wave started rolling in the South will not cease until it rebounds against the foot of Mt. Shasta. There is not one solitary reason why every rural dweller should not identify himself with the Patrons of Husbandry, and seek to benefit himself and his neighbors by the contact.

An Invitation.

Seeing your suggestion in to-day's Press in relation to our coming meeting of the Butte Mountain Pomona Grange on March 30th, and the hint that we might secure the attendance of Bro. Woodman and party, we have decided to invite them through you to be with us on that occasion, and that we may be able to advertise it extensively, your own and their acceptance is desired by return mail, or not later than Wednesday, so that we can give notice in the *Farmer*. The meeting will be an open one and held under the auspices of our Pomona Grange. We shall be pleased to see yourself and all the leading Patrons present. To reach here in time, the north-bound train of the day before must be taken. There will be the Marysville and Red Bluff local or the Oregon express. We hope to take a glance at the country in the forenoon and at the hall in the afternoon. Everybody is invited to be with us on that occasion. The Committee on

The "Grangers' Picnic"

Held their first meeting this afternoon and decided to have the picnic on May 14th, the place to be designated hereafter. The committee is composed of the 14 officers of the Grange, and the meeting was very harmonious and enthusiastic, which portends a glorious time for the Northern Granger and his countless friends. Sub-committees were appointed on orator, music, grounds, privileges, entertainments and program. Some new features are to be introduced which, if carried out, will add greatly to the attractions, and of which due notice will be given the journals over which you preside.

The rain of the past week was abundant and timely, and will insure one of the biggest crops ever seen in the county. The rains of this winter are peculiar. The early rain and the late rain, being about all we have had, were almost tropical in their warmth, coming down in sheets and torrents, and were, as I heard a gentleman remark, "very wet rains." So many prayers went up for rain it reminded me of the old lady's minister who prayed for rain, and then, being caught in a heavy thunder-shower on the way home, the good woman was heard to remark, "she never knew that minister undertake anything but he overdid it."

Reaper Death.

Again do we mourn the loss of a member of Yuba City Grange. Bro. Hugh C. Jones departed this life on Wednesday morning, March 6th, after a lingering sickness. The funeral took place on the Sunday following, and was attended by a large number of sympathizing friends. Bro. Jones was a Past Master of Yuba City Grange and a member of several fraternal Orders. He was an open-hearted and generous neighbor, a kind husband and father, an enterprising and public-spirited citizen, and the agricultural interests of Sutter county were materially advanced by his genius. The profound sympathy of the entire community goes out to the bereaved wife and daughter.

GEORGE OHLEYER.

Yuba City, March 16.



The Infinite Mother.

[By JAMES G. CLARK, whose portrait appears upon another page of this issue.]

I am mother of Life and companion of God!
I move in each mote from the sun to the sod,
I brood in all darkness, I gleam in all light,
I fath' in all depth and I crown every height;
Within me the globes of the universe roll,
And through me all matter takes impress and soul.
Without me all forms into chaos would fall;
I was under, within, and around, over all,
Ere the stars of the morning in harmony sung,
Or the systems and suns from their grand arches swung.

I loved you, O earth! in those cycles profound,
When darkness unbroken encircled you round,
And the fruit of creation, the race of mankind,
Was only a dream in the Infinite Mind;
I nursed you, O earth! ere your oceans were born,
Or your mountains rejoiced in the gladness of morn,
When naked and helpless you came from the womb,
Ere the seasons had decked you with verdure and bloom,
And all that appeared of your form or your face
Was a bare, lurid ball in the vast wilds of space.

When your bosom was shaken and rent with alarms
I calmed and caressed you to sleep in my arms,
I sung o'er your pillow the song of the spheres
Till the hum of its melody soothed your fears,
And the hot flames of passion burned low in your breast.

As you lay on my heart like a maiden at rest,
When fevered, I cooled you with mist and with shower,
And kissed you with cloudlet and rainbow and flower,
Till you woke in the heavens arrayed like a queen,
In garments of purple, of gold and of green,
From fabrics of glory my fingers had spun
For the mother of nations and bride of the sun.

There was love in your face, and your bosom rose fair,
And the scent of your lilies made fragrant the air,
And your blush in the glance of your lover was rare
As you waited in the light of his warm yellow hair,
Or lay in the haze of his tropical noons,
Or slept 'neath the gaze of the passionless moons:
And I stretched out my arms from the awful unknown.

Where channels are swept by my rivers alone,
And held you secure in your young mother-days,
And sung to your offspring their lullaby lays,
While races and nations came forth from your breast,
Lived, struggled and died, and returned to their rest.

All creatures conceived at the Fountain of Cause
Are born of my travail, controlled by my laws;
I thro' in their veins and I breathe in their breath,
Combine them for effort, disperse them in death;
No form is too great or minute for my care,
No place so remote but my presence is there.
I bend in the grasses that whisper of spring,
I lean o'er the spaces to hear the stars sing,
I laugh with the infant, I roar with the sea,
I roll in the thunder, I hum with the bee.

From the center of suns to the flowers of the sod
I am shuttle and loom in the purpose of God,
The ladder of action all spirit must climb
To the clear heights of Love from the lowlands of Time.

'Tis mine to protect you, fair bride of the sun,
Till the task of the bride and the bridegroom is done;
Till the roses that crown you shall wither away,
And the bloom on your beautiful cheek shall decay;
Till the soft golden locks of your lover turn gray,
And palsy shall fall on the pulses of Day;
Till you cease to give birth to the children of men,
And your forms are absorbed in my currents again—
But your sons and your daughters, unconquered by strife,
Shall rise on my pinions and bathe in my life
While the fierce glowing splendors of suns cease to burn,
And bright constellations to vapor return,
And new ones shall rise from the graves of the old,
Shine, fade, and dissolve like a tale that is told.

Hiram Jones' First Wife.

[Written for the Rural Press by L. H.]

The sweet refined face in the photograph seemed strangely at variance with all its surroundings. For the room—indeed the whole house—oppressed one with its untasteful profusion of home-made decoration. Rag carpets of gorgeous dyes, rag rugs of every conceivable pattern, tidies knitted and crocheted, patchwork quilts, embroidered pillow-shams, picture-frames of pine-cones and peach-stones—what was there not in Mrs. Hiram Jones' well-ordered house, the house that was the pride of her heart and the envy of many of her neighbors?

"What an indefatigable woman!" was the first thought of the visitor who was shown through this museum of household industry. Does she ever rest? Are those busy hands ever folded in idleness? Needless questionings in the midst of such visible results. Only by filling every working moment with active industry of some kind had Mrs. Jones accumulated her store of treasures, and she would have scorned the idea that she had overtaxed herself in doing it.

She did not look overtaxed, the tall, robust woman who was presiding over the weekly meeting of the sewing society of the Union Church in Allentown. Distributing the work, entertaining the members of the society who were her guests for the day, looking into the kitchen where her daughters were preparing the dinner under her direction, she was evidently in her element, her loud cheery voice ringing out over all the confused murmurs of conversation clear and distinct as a general commanding his forces.

I was a stranger to most of the guests, and

securing a piece of work, I found a quiet corner where I could look on and listen without joining in the talk upon subjects of which I knew little and must honestly confess I cared less.

"The silent picture on the wall" attracted me so strongly that when the hostess came and sat down beside me for a few moments, I asked her who it was.

"Oh, that was Hiram's first wife. Pretty, wasn't she? Poor child, she only lived a few months after she was married."

Hiram's first wife! I had seen Hiram. Massive in frame, loud in voice and manner, a good-natured, hearty soul eminently fitted for the second Mrs. Jones; could it be possible that he had ever wooed and won the fair young girl whose pictured face was so strangely winning?

"I can tell you about it," said the friend who had taken me to the meeting of the society, a dear old woman who knew the history of every one in the little country town, and who rather enjoyed having a good listener. "You must not think that Hiram Jones was always like what he is to-day. Twenty years ago he was a tall, slim young fellow, handsome and smart, and a great favorite among the girls. No one of them, however, was anything more to him than all the rest till Lucy Seaton came to spend the summer with her aunt. Then he was fairly caught. She was a gentle, timid little thing, with eyes like a fawn and the sweetest voice I ever heard. Hiram fell in love with her at first sight and three months after they were married. I don't think her folks were very well pleased with the match; she had been raised in the city and did not know the first thing about country life or real work of any kind. But she was not afraid. I suppose she thought her husband would always make her a pet and plaything as her lover did, and carry her over all the rough places of life in his strong arms. So they were married."

"Hiram bought the farm where he lives now and built a little house of three rooms, and there they began housekeeping. It was all very well at first. It was early in the spring when there was not much work to be done outside; and he used to help her with all the housework. I have gone in there and found him at the wash-tub with his sleeves rolled up rubbing out the heavy pieces, or maybe on his knees scrubbing the floor as good-natured as ever, thinking it a fine joke."

"But that couldn't last. Haying-time came and then the harvest, and he was obliged to be out in the field; and very soon Lucy began to have that hunted, worn look that comes to the face of a woman whose work is beyond her strength."

"Poor child! Books and music and pretty fancy-work had been her chief employments; now they were all laid aside and it was cooking and dish-washing, sweeping and dusting from morning till night. Hiram was always kind to her. I am sure he never found fault when things were not done right, but just made the best of them. But she was very sensitive, and it was enough for her to know that she had failed in anything to make her miserable without a word of blame."

"I went one day to make a dress for her—you know I used to go out to sew in those times—and we were busy in the bedroom cutting and fitting all the morning. It got to be near noon before we noticed the time. Then she was in a great state of excitement for fear dinner would be late. 'I wouldn't mind,' she said, 'if it were not for the men; there are two of them here to-day, and I know they will think me a wretched housekeeper if I keep them waiting for their dinner.'"

"She ran into the kitchen to light the fire, and I thought I noticed the smell of burning oil, but I didn't say anything. I folded up my work and went in to help her, and we made out to have the dinner on the table in time. Hiram came in with the men and they were just sitting down when he saw the oil-can standing on the shelf by the stove."

"What's this doing here?" he said, as he took it up to put it away.

"Oh! I was filling the lamps and forgot to put it back," she answered.

"I don't know why it was, but the moment she spoke I knew she had told a lie. I did not dare to look at her, and she did not say another word while we were at dinner. I helped her to wash the dishes and went back to my work. In a few minutes she followed me; she had always made a friend of me, and now she suddenly threw herself on the floor by my side and buried her face in my lap. 'O Miss Mary!' she sobbed, 'this life is making me reckless and wicked. I lighted the fire with kerosene oil and I lied to my husband when he asked me about it.'"

"I tried to comfort her the best way I could and begged her not to run such a risk again."

"I won't if I can help it," she said, "but I'd rather take any risk than have Hiram think I am useless and unfit for a farmer's wife."

"It was only a week after that the end came. It seemed that the clock had stopped and she had not begun to get dinner, thinking it only half-past ten, when she saw the men coming in from the field. The temptation to light the fire in the quickest way she knew was too much for her. No one was there to see, but as Hiram crossed the yard he heard a sudden cry and a little figure wrapped in flames rushed from the house."

"They sent for me and I was there as soon as the doctor. Even now I don't like to think of it. He gave her a strong dose of opium and she slept. When she woke she did not suffer, and her husband thought he could keep her yet,

but I knew better; the shock had been too great."

"Just at the last she looked up at him. 'Dear, I am so sorry,' she said; 'I know it was wrong, but I was so afraid—' She waited a little; then, 'Forgive me.' The words were faint and low. I think she was not speaking to him. 'Forgive us as we forgive—' That was all."

"Poor Hiram was heart-broken for a time; but he was young and strong and busy, and so his sorrow passed. He married again two years after; and do you know, somehow when I go to his house now and see his wife and children and the changes that twenty years have made, I can't feel so sorry for Lucy that she went just when she did."

And thinking of that pictured face amid its incongruous surroundings, I could not feel sorry either.

Danville.

Politeness.

[Translated from the French of M. Boitard by PROF. GRANVILLE F. FOSTER.]

Voltaire has said, "Politeness is to the mind and heart what grace and elegance is to the face; 'tis but the pleasant and agreeable reflection of the soul's most cherished virtues."

Duclos observes that politeness is the expression or imitation of the social virtues.

Labruyere claims that the spirit of politeness when manifested in us will urge to such careful attention to words and manners on our part that all who are fortunately placed in our company will feel its influence to such a degree that they will be satisfied with us and with themselves.

To these definitions let me add one which, it seems to me, will more exactly express its true meaning. It is as follows: "Politeness is nothing more than the natural kindness and goodness of heart put into practice." With such a definition it is apparent that this virtue cannot properly be said to exist without the kindest virtues—morality and sympathy. Many persons believe that politeness is only a deceptive mask which one puts on before the world to conceal bad habits or evil passions and to make a display of virtues which are only in the seeming—never really existing; hence with them all politeness is sham, hypocrisy, dissimulation—nothing more. Believe them not; but rest assured that they speak to you with the same frankness as did the fox that had lost his tail. Such people find politeness too difficult to assume, and hence they deary it. To merit the reputation of a polished gentleman requires that one should actually be such under any and every circumstance of life; even in the private life, within the family circle—a feat too great for him to perform who is destitute of that courage which is born of the true spirit of politeness within.

Men of a selfish or spiteful nature cannot at least by exhibiting their true spirit win friends. They recognize this truth, and are, in consequence, unhappy, since isolation of heart for the most of mankind is as terrible a fate as confinement in a prison cell. Hence many men find it necessary to conceal their odious character under the amiable and seductive forms of conventional politeness! Better this than nothing, however! Let them do this without reproach, and even let me say, encourage them in it if you are in position to do so, because, though it may be true that they will commence by being hypocrites, yet, in consequence of the refining and ennobling influence of the society to which their assumed politeness will introduce them, they will finally conclude by becoming really refined themselves. The vices are contagious, so also are the virtues. It is as true in the moral as in the physical world, that goodness and badness are communicable. This is a thing proved on the testimony of the ages. The old proverb, "Tell me what company thou keepst and I will tell thee what sort of a man thou art," is universally, eternally true. Example then is contagious. It has more influence on mankind than arguments, however forcible or logical. This peculiarity of human nature becomes so marked in some individuals as to lead to results really inexplicable. I will cite one instance. Among my fellow-students at college was one, a scholar of much merit and genius. His knowledge and tact subsequently as a doctor of medicine procured for him the position of resident and practicing physician in the lunatic asylum at Charenton. Two years later I called on him, and he was eagerly hastened to show me the establishment, even to its smallest details. This he did with that old-time friendliness and ease and suavity of manner for which he had been distinguished, but nevertheless in his eyes, in his gesture and in his conversation, there appeared something extraordinary, unusual—different from anything I had noticed in him before. A year later he visited me. "I came to pay you here my first visit," said he. "For three days past have I resided in Paris."

"What! You have resigned your place?"

"Yes, and it was time I did so, I assure you, unless forsooth I wished to become insane myself. For some time previous to my resignation I noticed growing on me certain peculiar hallucinations, eccentricities of thinking which gave me warning that if I would save myself from complete insanity I must quit my work in the asylum forever."

As he noticed that the fears he expressed caused me to smile incredulously, he added: "My dear friend, let me beg you not to laugh at my ideas in this matter, for every physician who has preceded me at Charenton will confirm my statement that lunacy is a contagious disease, and most of them were obliged to quit the establishment for the very same reason that I did."

It is demonstrably true, then, that mental maladies are contagious, and since vices may be regarded as nothing more than varieties or species of insanity, do not be astonished at all when you learn of young men, well brought up at home, endowed with excellent and superior qualities of mind and heart, who have been ruined, sometimes irretrievably so, by evil associations. Empitely, however, the nobler or benevolent emotions—goodness, honesty, uprightness of life and character—are as contagious as the malevolent ones. Virtue propagates itself as well as vice. The hypocrite in manners and politeness mentioned above, subjugated, conquered by the example of those in whose company he chooses to throw himself, will end soon by becoming the character he assumes. He has placed himself where he becomes inoculated, so to speak, with the contagion of the good as once he was with the virus of the bad. Besides, the very fact that a young man chooses to put on the mask of politeness is a proof positive of the beginning of that change of heart which will end in real conversion, since he thus indicates to the world that he believes that refinement and politeness carried out in practice possess advantages over a life of coarseness and obscenity. Recollect, however, that what I say here does not apply at all to the scoundrel who assumes the air and garb of refined men for merely dishonest and ignoble ends.

It may be objected to here, perhaps, that according to my reasoning, I believe that the only good men are the polite ones. To this I simply reply, I do believe just this, but it is here necessary to distinguish between politeness and the customs of good society. True, genuine politeness is but the natural language of the heart, and every individual who possesses a refined soul must needs speak that language. Such a one may not know how to conduct himself according to conventional forms in the drawing-room. He may be ignorant of the proprieties of fashionable society—sitting ungracefully in his chair, or gnawing boorishly his bread at the table. He may appear awkward, timid, embarrassed, but you will never hear him say or do anything which will wound the feelings of others or injure their character or reputation. You will ever find him attentive to do what he can to please others or to add to their happiness and prosperity. He will not courteously to everybody, and will especially be self-sacrificing for and devoted to his friends. Here is the rough jewel—the politeness of soul. Give to such a man an education and a knowledge of the usages of fashionable society, and he is converted at once into a polished gentleman.

The usages of good or fashionable society, it is true, demand politeness, or at least presume it, but they embrace more especially certain delicate points of etiquette, purely conventional, which were first established to maintain the hierarchy of rank and afterward continued to make more pleasant and agreeable the association of man with man.

True politeness is not confined to any period or country since it is established on an immutable basis—the human heart. It is, so to speak, the thermometer of all past and present civilizations. The usages of society, on the contrary, vary from age to age, and among different nations in the same age, since they are merely conventional forms—agreed modes of procedure on the part of those who are the leaders in society.

Grass Valley, Cal., March 12, 1889.

"The Schoolmaster is Abroad in the Land."

The friends of New Mexico will be glad to see any aspersions upon the educational element in the Territory properly resented and refuted in the following letter to the Kansas City Journal:

In to days Journal you say that New Mexico legislatur has passed a law requiring school teachers to be able to read and write.

Sir, I pronounce above statement a cold-blooded snedagerous lie and I hold myself PERSONALLY RESPONSIBLE for this.

I am myself a school teacher in Albuquerque New Mexico and I have nothing to be ashamed of except that I can get my claws on such lies as above for as god is my judge I would make them understand that there is one school teacher in that territory ready to spill his harts blood in her deafens.

New Mexico dont have to pas such a law, most of her teachers are fine scholars, graduates of Missouri and other eastern colleges and capabell of filling any office in the gift of that noble and freedom loving people. New Mexico is as much above her trayduers as the starrin heavens are above the mudsill of damnation.

I shal be at Adams house for three days ready to answer any calls on me. With due respect I subscribe myself

M. MARTIN FOUNTAIN.

Adams House, Feb. 1.

A YOUNGSTER sat watching his mother while she "pitted" cherries. She inadvertently passed one without removing the stone. Hopeful immediately picked it up, with the remark, "Here's one you didn't unbutton, mamma."

The Low Neck and Short Sleeve Missionary.

[Written for the Rural Press by ASENATH C. COOLIDGE.]

It happened at a railroad station. There was a woman with three children and a dog. The little girl was eating jelly and bread and butter instead of bread and butter and jelly. The little boy was eating mince pie out of his right hand and a hunk of meat out of his left. The dog was nosing around in the lunch-basket helping himself to what he liked best. The mother was giving the baby, who had just recovered from an overdose of lactal fluid, the highest kind of a dandle. They were a festive-looking set and the baby looked the most festive of all. It was dressed in low neck and short sleeves and had its corals all on as though it might be going to a party. Its neck and arms were just as fat and white as any other baby's neck and arms, but the mother said no less than a dozen times in five minutes that no other baby ever had such "t'weet neck and arms."

No knowing how many times more she would have said it had it not been for a woman of an entirely different pattern, who sat in the other end of the depot. She was alone. She didn't have so much as a bag or an umbrella to distract her. She was not at all festive looking. She was more the "Ash Wednesday" style. Her face was ash-gray and thin. Her hair was thin and ash-gray with black stripes. Her eyes were ash-gray on a yellow-white ground. Her dress was ash-gray from bonnet to shoe; she hadn't an ounce of superfluous flesh on her bones nor more than two ounces of superfluous clothes on them. She looked at the mother rivet-fashion and the mother looked at her off and on and smiled and smacked the baby's "t'weetness" at every downward dandle; but the gray woman never smiled back again a solitary time. A woman who has accepted a mission and hasn't found anything in it to smile at, seldom smiles back at anybody.

Instead of smiling back she arose and pinned her gray shawl as high up around her neck as she could get it, and then marched solemnly over to the festive group. When she arrived there she halted sharply in front of the mother and said:

"Hain' chew feard yewr bebb'y'l ketch a dethly cold in them low-neck an' short sleeves? I feel purty middlin' chilly with my warm shawl doubled an' thrilled over all my other thicknesses."

"Oh, no ma'am," replied the mother, "he's use' t'it. His little frocks ar' all made this way."

"But yew needn't hev 'em made that way tew start with. It don't look well tew take a yung'un frum hum in that necked shape, an' 'tain't a-settin' a good 'sample tew the risin' generation ef I know anything 'bout 'samples. Es the twig's bent the tree's inclined, an' ef mothers incline thur little twigs tew low necks, no knowin' whair the incline il' fetch up. Besides, 'tain't prudent fur thur belths. Yew can't stop uther foaks' drafts, least of all the railroads; an' my solem advise tew yew is tew put a yoke tew that yung'un's frock an' set in sum long sleeves afore yew go forth with it agin."

"Oh, but it looks so pretty with its little soft white neck and chubby arms," said the mother, giving it another heavy smack and rubbing it in with her nose.

The woman in gray drew herself up in a military attitude. Her eyes shone like a pair of percussion caps. Her forefinger was raised as though pulling an imaginary trigger. Her mouth opened and off went the words:

"Poor foolish keerles mother! I reckon yewr poor dud ef a yung'un won't look quite so purty tew yew when thur ain't nothin' left of it but its little cold corpse. There! It's a-sneezin' a'ready!"

The dog yelped, the jelly-faced little girl cried, the pie-faced boy dropped his pie and stared, the mother hustled on the baby's cloak in wild alarm and the gray woman marched back to her seat muttering to herself:

"I skeert'er enyhow, an' I reckon thet's the next door tew conviction. The cold corpse argment ain't a bad un fur muthers o' low-necked bebb'y's, tho't don't take with them low-necked surciety things."

MOVING A HOLE.—Before the plaza that is in the midst of the town of Lagos was set in order as it now is, there was in the middle of it a deep and wide hole. And this hole caused the Town Council (*Ayuntamiento*) much concern, for they perceived that it was a dangerous place, into which the unwary might fall and be killed or maimed. So a meeting of the Council was called, and it was decided that the hole should be filled. And to get earth to fill it a hole was dug beside it. And behold, when it was full there was a new hole as deep and as wide as that which was filled. Then in the same way did they set about filling the new hole, and again was the same result, only now the hole no longer was in the middle of the plaza, but over at the side of it in the street that goes out toward the north. And again they filled it, and so continued until at last the hole was far out in the northern suburb of the town. And there they suffered the hole to remain, for there it did no harm.—*Scribner's for March.*

LITTLE FREDDIE was awe-struck when the hotel waiter announced for dessert "apple-pie, plum-pudding, and baked Indian."

YOUNG FOLKS' COLUMN.

Baby's Hand.

[Written for the Rural Press by S. P. SNOW.]

The baby's hand is a wonderful hand; Most wonderful thing in all the land; It is velvety, soft and sweet and delicious, Too wee just now to wash up the dishes. But no matter now, the time is coming When 'twill set the knives, dishes and dinner-plates humming; It will knit garters and hose; make bonnets and dresses; Cook cabbage and turnips; make all sorts of messes; It will milk the cows and peel the potatoes; Will gather the peas and pick the tomatoes; It will make up the beds and clean up the house, And do it all soft and still as a mouse.

It will comb the head of its dear papa; It will braid up the hair of its sweet mamma; It will sweep and fix up and clean and adjust, And assort and arrange and replace and dust, And all things else to make the home sweet; Oh, the wonderful hand is perfect, complete.

O the wonderful hand! so cunning, so cute; It will play the guitar and the lyre and the lute; It will play on the harp-strings of man, no doubt; Though the knaves and the duds it will silently scout.

The wants of the poor it will haste to relieve; 'Twill always be ready, should any one grieve.

O the wonderful hand! the beautiful hand! Most wonderful thing in all the land. The slim little fingers, all dimples, and red As the set of the sun when its splendor is shed, Are moving about in incessant motion, As if seeking for labor with constant devotion. The lily-white nails and the cute little thumb, Oh, indeed, I must stop, I am mute, I am dumb; I can go on no farther, so great my emotion Rolls over my soul, like waves o'er the ocean.

O the wonderful hand! the beautiful thing! To all it will pleasure and happiness bring. God bless the sweet hand, the dear little treasure, And the darling babe, too, without stint, without measure.

Santa Barbara.

The Fishing Party.

[Written for Our Young Folks by ERSKIN DE LAMATER.]

One sunny June day some of the boys of a country village were trying to get up a fishing party, and at last they got five who promised to go. Each one was to put in seventy-five cents to get a livery team. The livery team would be two dollars. They did not know how much it would cost for putting their horses in the barn and having them fed. The amount they had over would be one dollar and seventy-five cents. Each put in his share. They were to start the next Saturday at seven o'clock in the morning, as they had to go eighteen miles. The next Saturday, bright and early, every one was there ready to start. The buggy was pulled out from the wagon-shed and the team hitched on to it. The boys started off. They rode through the woods laughing and joking. At last they reached the lake and they could see the row boats and sail boats sailing about on the lake. They thought what a jolly time they would have and bring back a buggy-load of fish.

When they reached the town on the lake it was dinner-time. First they went to the hotel in the town. The man also kept a livery stable and had their horses put up. After dinner they went to the store; each one bought a good bamboo fishing-rod, a good line and two dozen small-sized fish-hooks. Next they secured a boat; then putting their poles, lines and hooks in, they started off, the strongest taking the oars. When they got out near an island in deep water they fastened their lines to their poles, then put the corks on and then came the sinkers and hooks and an angle worm for bait. One after another caught a fish, when one of the boys got a big one on his line and giving a jerk upset the boat, every one going to the bottom. When they arose, the boat was too far off to be reached. The water was rather cool, but they had to swim for life to the island. When they reached the island every one was all wet and no one had a match to build a fire with and dry their clothes or even get warm. All this time they were not thinking of the horses in the livery stable.

In a short time they saw a boat approaching the island. One of the boys got up in a tree and hailed it with his hat to come to their relief. The boat immediately steered for the land. Just as soon as the boat struck land all the boys but one jumped into it. Just as he was getting in, the boat tipped and let them all out, so they had to stay there all night. They slept on some leaves that night, and in the morning, to their surprise, on walking around the island they found one of the boats had drifted back with both oars in. They all got into it and rowed back to the land. When they got to the livery stable where the horses were, they found they had no money. They knew a man in town, so they went to him and told him all about it, so he lent them enough to get home on, and when they got home they sent back as much again money as he had lent them.

Newcastle, Cal.

[This is certainly a "harrowin' tale." We hope our young friends learned wisdom from their thrilling experiences.—EDS. PRESS.]

Edison's Talking Doll.

A talking doll is Thomas A. Edison's latest invention. In his laboratory at Orange, N. J., there are numbers of dolls that speak quite naturally. "Dollphones" is what he calls them. They are not like the old-fashioned kind that say "Mamma" when pressed in the diaphragm, but they repeat long sentences and talk with ease. Mr. Edison has been working at the invention two years, and only lately completed it. It is so constructed that phonograph cylinders are interchangeable, and new sets of sentences may frequently be introduced into the toy's talking machine. This is a little phonograph, with a clockwork accompaniment, which is placed in the doll's back.

Mr. Edison showed a number of the "doll-phones" to a reporter to-day. Some of them were dressed and ready to entertain company; while others, while they could speak, did so, strange to say, without the use of their heads. Mr. Edison picked up one of the dolls, whose golden, curly hair and pink cheeks were lovely in their perfection, and whose light blue eyes stared in mild surprise at the reporter, and winding her up by inserting a clock key in the small of her back, handed her to the reporter. He then pressed a spring, and the doll, still looking at the reporter, said in a plaintive tone:

"I love you, mamma; I love you dearly, mamma, but I am tired and sleepy now. Please put me in my little bed."

The doll continued to stare with the widest of wide-open eyes at the reporter while asserting the fact that she was sleepy, but the distinctness with which she said it and the guileless expression of her pretty face convinced him that she was telling him the truth, so he laid her gently down on the table near by.

Then Mr. Edison wound up a brunette doll, with jet-black curls and sparkling brown eyes. The doll started off at a brisk rate with the following:

Twinkle, twinkle, little star,
How I wonder what you are,
Up above the world so high,
Like a diamond in the sky.

Another doll-baby sang, in a sweet, childish treble, "Rock-a-bye Baby on the Tree Top" all the way through with good expression and without a false note. She sang it quite loudly, too, so that any one could have heard her across a moderate-sized room. Still another sang a pretty little German song.—*Chicago Tribune.*

GOOD HEALTH.

Health of the State.

The monthly circular of the State Board of Health for February has been received. From it we learn that mortality reports have been received from 67 localities with an estimated population of 665,700. The total number of deaths reported were 859, which gives an annual death rate of 15.48, which is an unusually small percentage for the season of the year, and indicates the absence of any epidemic disease upon the coast. Among diseases which have caused the greatest number of deaths are consumption, which is credited with 165; pneumonia, 92; heart diseases, 61; various diseases of the stomach, 38; diphtheria, 32; while cancer, the fourth on the list, is credited with 26. The large death rate from this disease is no doubt largely due to the persistent use of the knife instead of constitutional treatment. Bronchitis was fatal in 22 instances. All the deaths from this malady, with but one exception, occurred in the coast counties.

But four deaths are noted from cholera infantum; but as spring advances, a large increase from this disease is expected. It is very properly stated that when mothers become more familiar with household hygiene, we may hope to see this affection disappear from our list of prevailing diseases.

In cases of diphtheria the importance of thorough isolation is strongly urged. It should be borne in mind that this disease is almost as contagious as smallpox and twice or three times as fatal. Too much care cannot be taken in confining cases within as narrow a limit as possible.

TREATMENT OF DIPHTHERIA.—Much care and promptness is necessary in the treatment of diphtheria. A writer in *Science News* says: The local treatment of diphtheria by spray of solution of sulphate of calcium is recommended by Dr. George E. Hubbard, New York. The solution is prepared as follows: Take of lime, 1 part; sulphur, 2 parts; water, 20 parts. Slake the lime with some of the water, then add the remainder and the sulphur. Boil to 12 parts and filter. Under the use of this solution, in spray, even sparingly applied, the diphtheritic patches undergo a change in a few hours. The temperature soon subsides, and a general improvement in the condition soon follows. In some cases the patches disappear entirely in a day. If the false membrane has developed rapidly before the physician has seen the patient, this spray will even then be effectual in arresting systemic poisoning, and soon the tough membrane will become detached. Do not, by any means, allow the patient to swallow any portion of the false membrane. By gentle manipulations it can be removed without causing any irritation. In cases of very young children it may be best to add a little water to

the solution, at first, until we are satisfied that it does not irritate the tender mucus membrane. The doctor also thoroughly fumigates the apartments with sulphur, and administers such medicine as may be indicated. The principal thing to do is to destroy the disease germs as early as possible, and he believes the solution under consideration does much toward preventing constitutional infection as it is taken into the patient's stomach. Its stimulative, laxative, and somewhat diuretic action are quite marked.

THAT ACHE IN THE BACK.—An Albany physician, says a cotemporary, declares that Americans suffer more generally from Bright's disease and nervous disease than any other people, and he says that the reason is that Americans sit down so persistently at their work. He says: "Americans are the greatest sitters I ever knew. While Englishmen, Germans and Frenchmen walk and exercise, an American business man will go to his office, take his seat in his chair and sit there all day without giving any relief to the tension of the muscles of the back. The result is that these muscles surrounding the kidneys become soft and flabby. They lose their vitality. The kidneys themselves soon become weak and debilitated. If Americans would exercise more, if they would stand at their desks rather than sit, we would hear less of Bright's disease. I knew of a New York man who had suffered for some years from nervous prostration until it was recommended to him that he have a desk at which he could stand to do his work. Within a year he was one of the healthiest men you ever saw. His dyspepsia and kidney trouble had disappeared, and he had an appetite like a paver."

DOMESTIC ECONOMY.

SALAD DRESSING.—Two eggs, one tablespoon of butter, eight tablespoons of vinegar, one-half teaspoon of mustard; put into a bowl over boiling water and stir until it is like cream; salt and pepper to taste.

SILVER CAKE.—One and one-half cups of sugar, one-half cup of butter and cornstarch, 1½ cups of flour, one-half cup of sweet milk, the whites of six eggs and two teaspoonfuls of baking powder; flavor with one teaspoonful of lemon and one-half teaspoonful of vanilla.

SOUP BALLS.—Boil five eggs until hard; remove the shells and pound the yolks into powdered. Add the whites of two uncooked eggs, with a little flour and salt. Mix into balls, boil and drop into the soup.

OYSTER OMELET.—Beat six eggs to a light froth. Add half a cup of cream, salt and pepper. Pour into a frying-pan, with a tablespoonful of butter, and drop in a dozen large oysters. Fry a light brown. Double over and send to the table immediately.

GINGER COOKIES.—Two cups molasses, one cup brown sugar, one egg, teaspoonful ginger or cinnamon, as you prefer; two teaspoonfuls soda dissolved in hot water just enough to dissolve it nicely; after everything is in and stirred thoroughly, add one tablespoonful of vinegar. Stir well and put in flour as for any cookies.

POTATOES WITH CHEESE.—Cut six cold potatoes into dice. Make a sauce by melting two tablespoonfuls of butter; add two tablespoonfuls of flour and pour on slowly one cupful of white stock and one cupful of milk; season with salt and pepper and add four heaped tablespoonfuls of grated cheese. Put a layer of potato into a baking tin, and cover with sauce, and so continue until all is used. Sprinkle with buttered crumbs, and brown in the oven.

ORANGE FLOAT.—One quart of water, the juice and pulp of two lemons, one coffee-cup sugar. When boiling hot, add four tablespoons cornstarch. Let boil 15 minutes, stirring all the time. When cold, pour it over four or five oranges that have been sliced into a glass dish, and over the top spread the beaten whites of three eggs, sweetened and flavored with vanilla.

BREAD OMELET.—To a large teacupful of bread crumbs add a teacup of cream or rich milk, a dessertspoonful of butter, salt and pepper to suit taste; also a little nutmeg; when the bread crumbs have absorbed all the cream, add three well-beaten eggs and fry in butter. This omelet makes a good dessert, with the addition of a rich sauce.

LEMON WATER ICE.—The juice of two lemons, two tablespoonfuls of the extract of lemon, one quart of water, one pound of granulated sugar and one gill of rich, sweet cream. Mix all well together, strain and freeze, the same as ice cream. Orange water ice is made in the same way, using oranges.

APPLES IN BATTER.—Peel four or five good apples, cut them like the quarters of an orange, remove the cores, and lay them in a deep dish, dissolve two ounces of castor sugar in a tablespoonful of rum (and a little water if necessary), and pour it over them; leave them to soak for an hour or two, frequently moistening them with the syrup; make a batter with one ounce of fine flour, half-ounce of sugar, quarter-pint of white wine and the well-whisked white of one egg; dip the apples into it, and put them in a baking dish with some boiling dripping; bake them a nice pale yellow, then drain them on blotting paper, pile them in a dish, strew them with sugar and powdered cinnamon, and serve hot.



A. T. DEWEY.

W. B. EWER.

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SAN FRANCISCO:

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(NEW THIS ISSUE.)

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Windmills—R. F. Wilson, Stockton.
Mowers—Wm. Deering & Co.
Agricultural Implements—Truman, Hooker & Co.
Springs—Racine Bolster Spring Co.
Warner's Safe Co.
Poultry—Mrs. J. N. Lund, Oakland.
Trees—W. R. Strong & Co., Sacramento.
Stockton Combined Hardware and Agricultural Works.
Mowers—Judson Mfg. Co.
Windmills—Pacific Manufacturing Co.
Wire Fence—Baker & Hamilton.
Combination Sale—Kilip & Co.

See Advertising Columns.

The Week.

The rain clouds which had dropped so copious blessings on California lands a week ago have been blowing hither and thither over the State with recurring down-pours until the thirstiest fields cry: "Hold! Enough!" and welcome the warm sunshine of this Wednesday afternoon. Orchardists whose trees were coming into bloom when the storm struck them think that the falling off of many blossoms beneath the pluvial pelting will save them much trouble of thinning later in the season, and are doubly grateful for the showers.

Another thing for which the people of this State have reason to be thankful is the fact

that the twenty-eighth session of the Legislature has adjourned *sine die*. It is humiliating to feel that the scathing comments upon the character and conduct of our law-makers, quoted on another page, are mainly just; but signs are not wanting that the abuses of bossism are becoming so intolerable that honest and industrious citizens will ere long rise up in concerted and effectual revolt against the tyranny of organized vice and crime, recover the reins of government and place them in more patriotic and trustworthy hands.

An Enemy of the Wheat Plant.

Specimens were received at the Agricultural Experiment Station of the State University on Saturday last, which indicate that an enemy of the wheat plant in distant parts is also to be feared in some portions at least of California. The specimens were from Healdsburg, and were accompanied by a note stating that the farmer claimed that there were 50 to the square inch and that they were eating the grain off clean. The statement as to numbers was clearly an exaggeration, but there were doubtless enough of them to accomplish the result described. The pests were identified by Mr. Wickson as larvae of a tipulid fly—a large mosquito-like insect (though many times larger than a mosquito) which the children call "daddy long-legs." They may be roughly described as follows: Footless, cylindrical grubs about an inch long and a shade more than an eighth of an inch in diameter, of a dark-grayish color with faint lines running lengthwise of the grub; the rear end apparently not squarely off, and with four pointed projections from the last segment, and (as seen with a magnifier) tubercular or warty excrescences also on the last segment; the front end tapering slightly to the head, which is indistinct because nearly inclosed within the skin of the first segment, and on the head two short, brownish spines. The grub has a tough, leathery skin.

The larvae of tipulid flies, or crane flies as they are sometimes called, have different abodes and food. Some feed on rotten wood, some on fungi; some are aquatic and others live on roots of grass and grain. It is one of the latter which has been found in Sonoma county, and, so far as could be judged from the larvae, the insect is identical or very similar to the *tipula oleracea*, which is known to injure grain crops in the Eastern States and in England. These larvae usually do most harm in moist places, and in low-lying meadows often kill out much grass. The present instance is, we believe, the first time they have been reported as a grain pest in this State, although many species have long been known to exist here. Baron Osten-Sacken in his report on the Western Diptera speaks of 35 species of *tipulide* as having been collected in this State. It is to be inferred that most injury here, as elsewhere, will be found on low moist land, and probably that the coast region north of the bay will furnish most species because of its more prevalent moisture. On the whole, for the same reason, the tipulid larvae are more injurious in England than in the Eastern States, and probably in most parts of California can never rise to the dignity of a pest because of prevailing aridity of soil.

The methods employed to destroy the injurious larvae are several. Light applications of common salt or of nitrate of soda are said to destroy them; the latter also an invigorating fertilizer for the grain or grass. Of course in applying common salt the scattering must be light or the grain would suffer. In colder climates the pests are measurably destroyed by rolling when the ground is frosty, thus crushing the insects. Another method which is effective is to plow deeply, turning the grubs under a good weight of soil whence they cannot escape. Probably this last would be the most effective and practicable treatment to adopt in California, when the pests become abundant enough to injure the wheat so that the yield would not be worth gathering. In such a case the crop would be destroyed any way, and clearing the ground of the grubs and re-sowing, or, if too late in the season, following with a summer crop in due time, would be the best procedure.

We shall be glad to have specimens of insects found injuring grain or grass crops. Now that the fruit-growers have all their bugs killed, it will be well to hold post-mortems also on pests of other crops.

How Roads Are Made in Santa Clara County.

Many of the counties of California should make immediate and adequate efforts to secure better roads. Probably this fact will press itself home upon the attention of our readers who have been required to travel to and from their market towns since the recent glorious rain. The same facts will enforce themselves again next summer, when the sea of bottomless mud is transformed into a desert of deep dust begemmed with chuck-holes. The way some counties neglect the making of proper highways is reprehensible. They are not the poor, undeveloped counties, either, but some of the richest in the State. Even in some fruit regions, where development has progressed farthest and the hauling of tender produce would seem to demand the finest roadways, the very worst in the State are to be found. There is even land valued at \$300 to \$1000 per acre which is situated alongside of a slough in winter and a dust mine in summer. Both good repute among visitors and actual hard profit to resident fruit-producers demand better roads.

Some localities are better situated than others to secure good roads cheaply because road-making materials are handier in some regions than others, and yet something should be done even where rock and gravel are most expensive. Santa Clara county has the reputation of being one of the counties having the best roads and keeping them in the best condition, and it will no doubt be both interesting and instructive to our readers to know how Santa Clara county roads are made and cared for. The Marysville *Appeal* recently secured from W. O. Watson, one of the supervisors of Santa Clara county, a statement of the way his county's roads are improved, from which we quote as follows:

Public roads in this county run over all classes of soil—clay, sandy loam, adobe, gravel, red loam—all needing a different treatment as to grade, amount of gravel or macadam and drainage. The general method used here, in making new roads, is to grade the road first, and for that purpose we use three kinds of scrapers. For filling up large holes or very uneven places, we use the common two-horse scraper in general use; also the late improved two-horse scraper that runs on wheels, which for heavy grading is economical and a great improvement over the common ones.

After the road has been graded with the above-named scrapers, we then plow the sides of the road, turning as many furrows as are needed to make the necessary grade. We then take the large road-grader (McCall pattern), using ten horses, and throw the sides, already plowed for that purpose, to the center, making, when finished, a complete grade smooth and uniform in character.

When the road is completely graded, as above described, it is then ready to receive the gravel or macadam, as the case may be. The usual amount of gravel or macadam used on new roads is about four cubic yards to the rod. The cost of grading and graveling roads depends largely upon the character of the soil over which the road runs, and the distance the gravel has to be hauled to cover the same. This county is well supplied with gravel, within convenient distances to nearly all of our roads. Our experience is that no soil except gravelly soil will make a good road that will stand much travel without being well graveled or covered with macadam. In some of our main avenues where converging roads center a great amount of travel, nothing but good trap rock, broken to proper size, will stand the traffic.

In the past few years our county has entered upon a system of sprinkling the public roads, where water can be obtained conveniently, which greatly improves the roads and at the same time makes them very pleasant to public travel. This system of watering the roads in the dusty season is somewhat more expensive than not to water at all, but the pleasure and convenience is so great to the traveling public that the taxpayers do not object to the greater expense. This county spends annually on the public roads \$80,000.

These statements will be found of wide value. Of course local methods will depend upon local conditions. The general principle is to do something effective, and to do it before the State gets much older.

CREAMERIES.—There is much talk now about building creameries in California. Those interested in the subject will find upon another page a timely letter by Col. R. P. McGlinchy of San Jose, who has already been introduced to our readers as a gentleman of wide experience in the dairy affairs of the great Central States of the Union.

THE State Legislature this year appropriated \$12,534,000 of public money, as compared with \$9,839,000 last session.

Honors Declined.

We are pleased because of the incident gain to California agriculture to announce that Prof. Hilgard, Director of the University Agricultural Experiment Stations, has declined the Assistant Secretaryship of Agriculture at Washington, which had been offered to him. It would be very desirable on some accounts for California to have in the national agricultural councils a representative so well informed on her industrial conditions and possibilities, but it would be at too great a local loss that such representation in the person of Prof. Hilgard could be secured. This view of the matter seems to have been taken by the Board of Regents, for when the chance of Prof. Hilgard's withdrawal was presented to them they made arrangements for the pursuit of his California work so satisfactory that he decided to remain at his post in this State. His declination of the pressing invitation to take a governmental position at Washington will be appreciated by Californians.

Colony Frauds.

Tehama county papers are indignant at the swindling wrought by the self-styled "California and Southern Land Trust Co.," which has been flooding the East with delusive circulars about a "Wilber Colony" tract, represented to be within ten minutes' walk of Red Bluff, but actually eight or ten miles distant.

The effect of these sharpers' advertising has been seen in thousands of letters, addressed to the concern, which have been received at the Red Bluff postoffice; and about the first of this month there arrived from Rock Island, Illinois, two Germans—Henry Flugel and Wolfgang Akarman—holding trust-deeds to lots in the bogus town of Wilber, and also for tracts of land in that immediate vicinity. They represented 28 other Germans at Rock Island who have paid the "C. & S. L. T. Co." of Cincinnati, Ohio, about \$3000 for numbered lots in this same Wilber Colony. Messrs. Flugel & Akarman came on to take charge of the land purchased and to make preparations for the rest who were to follow. They expected to find a thriving settlement on the tract, and were sadly taken aback when they learned that there were no settlers nor improved lands thereabouts. They had but \$6 left between them, and there was no one to whom they could look for redress, the fellow who had conducted the local office having left town two or three weeks before.

The *People's Cause* says: "The fraud becomes more apparent every day, and the intentions of the company are clearly nothing more than to impose upon credulous people in the most shameful manner;" and the *Sentine* remarks that the sooner the committee of the Board of Trade investigates and reports upon this scheme the better it will be for poor men in the East who are seeking homes in California.

NEW YORK DAIRYMEN.—We are gratified to see that our dairy associates in the old Empire State are pursuing dairy problems with all the freshness and vigor which characterized their assemblages when we knew them 15 years ago. The last report of the New York Dairymen's Association, which we have just received from the secretary, Hon. Josiah Shull of Ilion, N. Y., is full of interest to all engaged in dairy work, and is a credit to the society issuing it. Our California dairymen would find it well worth the cost and trouble to secure these Eastern reports. Although some practices are necessarily different here, there is much in Eastern dairy experience which is suggestive and valuable. The annual membership fee in the New York association is \$1, and all members are furnished with the published reports. Until we get such an association in this State, our dairymen should join some good Eastern society, and Mr. Shull will no doubt be glad to enroll a large California membership.

PERSONAL.—We had the pleasure of a brief visit last week from Prof. F. M. Webster of Purdue University, La Fayette, Indiana, and special agent of the U. S. Division of Entomology. Prof. Webster only made a flying visit to the State, and will, we trust, soon take occasion for a longer sojourn among us.

CONTRA COSTA county pays a bounty of \$2.50 for the scalp of every coyote killed within its borders.

A Large Rabbit Trap.

[Written for the Rural Press by MIRAMONTE.]

In accordance with your request, I beg to hand you herewith a rough sketch of what, though not strictly speaking, an automatic rabbit corral, is one, in so far that it does its own work.

This corral is to be used in connection with the fence of which a description with engravings was published in the Rural of Feb. 9th.

In this sketch Fig. 1 shows this fence with the corral in position near it; A is a piece of netting to which reference will be made hereafter; B is the barbed wire of the main fence; C is the netting of the main fence; E, the posts of the main fence; F, small posts of the main fence; G, barbed wire of the corral; H, netting of the corral; I, posts of the corral; J J, posts at the opening of the corral; K, the wire on these posts, which will be described hereafter.

Fig. 2 shows an elevation of these posts J, with the wires K stapled on by two staples.

Any one who has lived in a rabbit country where there is a fence must have noticed that around the outside of this fence is a well-worn path made by the rabbits going around the fence and trying to find a place through which to get in.

This path is also shown and it is on account of this peculiarity of the rabbit that I expect the corral to be a success. It will be noticed that coming in either direction the rabbit finds an opening between the wires on the posts J and the main fence, through which he will naturally pass on his journey around the main fence. Once in, any attempt at passing out through the opening by which he entered, would be prevented by the ends of the wires catching him, and the more he tried to force past them the tighter they would crowd him against the fence, on the principle of those rat traps that will let a rat squeeze through to get in but will not allow him to get out. The thickness, length and closeness to the main fence of these wires K must be a matter of ex-

main fence is on the inside and the barbed wire is on the outside, in the corral it is the reverse, and, for the obvious reason that one is intended to keep the rabbits out, and the other is intended to keep them in. If a third wire be used, however, I should think it would be better placed on the top at the outside, thus helping to fence the cattle off from the netting.

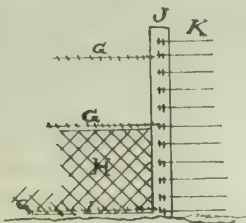
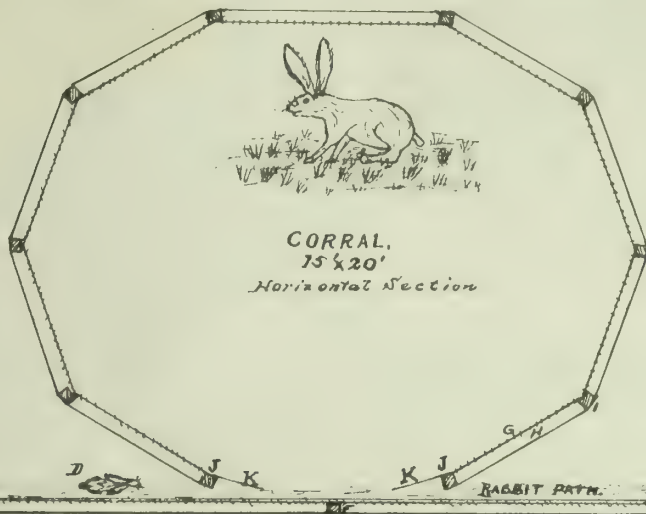


Fig. 1.



A RABBIT-TRAPPING CORRAL PROPOSED FOR TRIAL IN KERN COUNTY.

I have not tried this corral yet, but feel quite confident that it will work. Meantime, should be greatly pleased if any of your readers will set one up and try it, and report results. If it has no other, it has the two merits of being cheap and no trouble to take care of.

A Pretty Scene in Placer County.

We give herewith a glimpse at one of the natural beauties of Placer county—a beautiful meadow studded with white and live oaks so full of grace and beauty that the eye loves to dwell upon them. The scene is a part of the lands of Clover Valley Park, evidently well named, as the engraving shows. Clover Valley Park is a portion of the lands now being improved by the Placer County Citrus Colony, an enterprise in the hands of some of the leading citizens of Placer county, under the presidency of James G. Whitney of Rocklin. The lands are situated in the lower foothills extending along the Central Pacific railroad from Rocklin to a short distance below Newcastle.

The colony comprises at the present time

Death of Dr. S. F. Chapin.

Many readers of the Rural will be pained to hear of the death of Dr. S. F. Chapin, who was for several years prominent in fruit-growers' meetings and widely known through his work as member of the State Board of Horticulture and State Inspector of Fruit Pests. The manner of his deeply regretted death and the story of his life are told by the Auburn Herald as follows:

As to how the fatality occurred, no one knows. As far as is now known, there were no eye-witnesses to the accident. It is conjectured, however, that while returning from a professional visit to the family of John Hutchinson, near Ophir, the doctor attempted to cross Auburn ravine, which had become swollen by the rains and was running swift and deep, and the buggy had overturned, and the occupant was thrown out and drowned.

Dr. Chapin was born in Michigan, March 12, 1839. His father dying when he was six years of age, the family moved back to Massachusetts. He was graduated from the College of Physicians and Surgeons in New York City in 1863, and served for a portion of the war as Assistant Surgeon under Sheridan. His health failing, he came to California, arriving in Auburn March 12, 1866. In 1866 he was married in San Francisco to Miss Maria Endicott. In 1878 the doctor removed to San Jose, where he resided till 1885. The following year was passed in Los Angeles. During the years 1887 and 1888 the family resided at Auburn and Los Angeles. While living at San Jose he was appointed Chief Horticultural Officer for the State, and assisted very materially in disseminating a knowledge of entomology among the fruit-growers of California. Doctor Chapin ranked very high in his profession, being eminent both as a physician and surgeon. He was generous with his means and liberal to an extreme in all things, and enjoyed to the fullest extent the respect and confidence of the community. He leaves a widow, one son and three daughters.

THE STATE BOARD OF TRADE rooms, under the Grand hotel, present some varying attractions from week to week, besides the more lasting exhibits, which altogether render these headquarters interesting alike to Eastern visitors and our own people. The windows on



VIEW IN CLOVER VALLEY PARK, NEAR ROCKLIN, CAL.

periment. I should say, however, that by no means must the ends of these wires be made sharp, as it is well known that if a rabbit's blood gets on to any substance, other rabbits will avoid that spot, as they have a great repugnance to the smell of blood. Therefore these points should not be sharp enough to stick into the rabbit, but only rounding enough to catch him and hold him.

You will notice that while the netting of the

I beg to call your attention to the line between the barbed wire of the main fence and the corral. This is intended to represent a piece of netting placed for the purpose of keeping the rabbit away from the barbed wire. As he begins to get into the narrow space, it will not do to discourage him by anything of that kind until he gets way in. For that reason I recommend a short piece of netting to be placed in that position.

The colony is incorporated under the laws of the State with a code of by-laws for the management and settlement of all matters affecting irrigation and general improvements.

A good start has been made in the development of the property by the making of good roads with granite arched bridges over the stream which runs through Clover valley. Nature has done much for the place—the work of the planters will follow.

Market street are just now adorned with a large number of splendid Navel oranges from Ontario, and a photographic picture of "California on Wheels," the roving exhibit which has recently been viewed by admiring myriads in Ohio, and at last accounts had reached Buffalo, N. Y. Secretary Davies informs us that 33 counties are now affiliated, San Diego, San Bernardino and Los Angeles being among the latest additions.

AGRICULTURAL NOTES.

CALIFORNIA.

Amador.

DOINGS AT THE EXPERIMENT STATION.—*Jack-son Dispatch*, March 9: The first large walnut trees and the first Smyrna figs are planted on the road leading to the residence and reservoir hill. This is the beginning of the setting out of trees on our station. The vineyard is planted, except the cuttings of those varieties which could not be rooted. A thousand holes are ready to be occupied and Mr. Hansen is busy making out his plans how to keep the varieties and the different stock separate. Not a corner will be left empty. Half of the prune orchard (175 varieties) will have to wait until the best clearing is done and cannot occupy their permanent quarters until next season. Of grains we will have a superior opportunity to study the different varieties; of wheat, for instance, there are more than 30 different ones. We would like to draw our farmers' attention to the different beardless barleys; we hope that one of them will replace our long-bearded old variety. We hear that large tracts of Nepal barley are under cultivation. The barn the county built at the station is a large, substantial building, connected with the sheds for tools on one side and the wagon on the other. There is a large yard in front of it and the corral below. The residence begins to look more and more like a home. The walls are all nicely plastered.

Contra Costa.

BARN BLOWN DOWN.—*Danville Cor. Item*, March 14: Yesterday afternoon during the heavy storm, Mr. Geo. Wood, near San Ramon, had two of his barns blown down by the wind, which blew a perfect gale. There were some four or five horses tied in the barn at the time, but luckily they didn't get hurt.

BRENTWOOD HORSES.—*Cor. Item*, March 16: The appearance on our streets of fine-blooded horses is worthy of note. Squire Haney, with his brace of imported Normans, Gen. Veale with his beautiful Cleveland Bay, attended by that prince of grooms, Bob Coverly, are conspicuous objects of attention; while Venot, with his 2000 pounds avoirdupois, brown and sleek as a mole, catches the admiring gaze of the breeders who figure on the ready sale of heavy truck horses. The veteran, Cardinal, with a long list of high-priced descendants, once a beautiful dapple gray, but now white with age, and his prolific son, Cardinal Jr., greet each other here at appointed intervals. Last, but by no means least, Whalahan's pet roaster, California Boy, a lineal descendant of Dan Voorhees, may be seen skipping into town gracefully on a three-minute pace, showing himself a worthy son of an illustrious sire.

Fresno.

IRRIGATION ELECTION.—*Expositor*, March 13: The election to determine the question of issuing bonds in the Madera irrigation district was held last Saturday. The amount of bonds proposed to be issued is \$850,000, and the vote was practically unanimous in favor of the proposition. In the four precincts heard from there was but one negative in 243 votes cast. Minturn had not been heard from up to last evening, but as the sentiment there is known to be in favor, the affirmative vote will probably be unanimous.

Inyo.

PRUNE ORCHARD.—*Inyo Index*, March 13: S. A. Densmore has added several acres to his orchard at Camp Independence, setting out 1200 new trees, principally French prunes, of which fruit he now has 22 acres. His entire orchard and nursery cover 80 acres.

Kern.

SAGEBRUSH FENCE.—*Bakersfield Gazette*: Joe Smith has built for himself on his Weed Patch ranch a four-foot rabbit-proof fence out of this shrub, which for strength and economy must commend itself to all. The brush was placed on the ground in proper line, firmly tramped and secured with barbed wire. It is said to be proof against stock of all kinds, and, what is of vastly more importance, is an effectual bar to the ingress of rabbits.

ALFALFA ON THE HILLS.—The opinion is growing among the stockmen of the county that alfalfa is a better grass for the mountain sides than alfilerilla. Some who have watched the growth of the former where seeds had chanced to fall, and in a few instances where it had been intentionally scattered, say that it makes a better growth and stands drought better. Being a perennial instead of an annual, its roots sink deeper and deeper and thus it is capable of providing itself with moisture.

IRRIGATION BONDS.—*Bakersfield Echo*, March 14: Dr. Smith, who owns considerable land in the Poso irrigation district, was in town Monday. He reports that the bond election held in that district last Saturday resulted in a unanimous vote in favor of bonds. But 35 votes were cast. The amount of bonds to be issued is \$500,000; there are about 50,000 acres of irrigable land in the district. This may seem like a heavy outlay—\$10 per acre—but the end fully justifies the means. The works include dams and reservoirs along Poso creek, and pipe lines to convey the water to the land to be irrigated the day when they are completed.

Los Angeles.

WATER RIGHTS AND TREES AT AZUSA.—*L. A. Herald*, March 16: J. W. Dawson of Azusa

reports great activity all along that part of the valley. Tree-planting is the enterprise of the moment, and orange trees take precedence of all others. The orange-growers of the Azusa are all planting out more trees. Those who heretofore have not had trees are planting all they can procure. All the old disputes about water in the Azusa are settled in a most amicable manner. Nine commissioners have been appointed to take charge of all the questions relating to the water of the district, and solve the vexed problem. The Commissioners are: For the Duarte, Messrs. Scott and Wardell; for the Azusa Land and Water Co., Messrs. Slauson and McNeil; for the Covina Development Co., Mr. M. L. Wicks; for the old Azusa company, Messrs. Forbes and Frye, and for the other interests, Messrs. Marshall and Davidson. Next Tuesday this committee will meet and organize.

BARLEY IN LOWER LOS ANGELES.—*Herald*: The San Joaquin ranch, in the extreme southeastern end of the county, has never been much used for grain-growing. It has been a pasture for sheep and cattle. The most barley sowed in former years has been about 1000 acres. This year there are 6000 acres of barley on the ranch. Between the San Joaquin ranch and the Santa Ana river lies the Santiago de Santa ranch. The towns of Santa Ana, Tustin and Orange occupy a good deal of this area. Much of the remainder is devoted to fruit of various sorts, and a large slice of the territory around Fruitland, Fairview and Newport is used for pasture and alfalfa-fields. It is, however, estimated that there are about 25,000 acres of grain, mostly barley, growing on the other side of the Santa Ana river and below the Santa Ana canyon.

ALHAMBRA ORANGES.—In talking to Geo. Rice of the Alhambra, a *Herald* reporter learned that the orange crop of the Alhambra will aggregate 150 cars, or 54,000 boxes. The prices range from \$1 a box, for good seedling, to \$2.50 for prime Navel. As most of the crop is of budded varieties, the average is probably about \$2 a box; and the aggregate price comes to over \$100,000.

THE OSTRICH FARM at Kenilworth is to be removed to Santa Monica, one mile south of the Arcadia. Mr. Beauchamp, the proprietor of the birds, thinks they will do much better by the seashore, as the temperature is very even, whereas in the foothills at Kenilworth, the mornings in the winter months are rather severe. He has obtained seven acres of land at his new stand and is having a section of it closely boarded in with a fence eight feet high. In addition to this, he has rented a tract of land near La Ballona, on which he will raise alfalfa, the principal feed of the ostriches. Altogether he has 36 full-grown birds.

Modoc.

CURE FOR BLACKLEG.—*Alturas New Era*: R. W. Minto, stockraiser at Eagleville, informs us that salt and saltpetre placed where cattle can lick it, will cure the blackleg and prevent the spread of the disease among healthy stock. He mixes four pounds of saltpetre with 24 pounds of salt, thoroughly pulverizing the compound. He says that cattle died on both sides of his place from the disease, while he lost but one calf, and it never had a chance to reach the lick-log. He deems the above an infallible remedy.

Monterey.

CATTLE SALE.—*Salinas Index*, March 14: Cattle brought good prices at Hiram Corey's auction sale on the Buena Vista ranch yesterday—yearlings, \$14; 2 year-olds, \$20@22; 3 and 4-year-olds, \$25@27. They were of various grades (Durham blood), and went off like hot cakes, the farmers of the valley and surrounding country being the principal purchasers.

Placer.

NEW AGRICULTURAL DISTRICT.—*Grass Valley Union*: The Governor has signed the bill making Placer county a separate agricultural district, it having been segregated from Nevada county, which is left to constitute the 17th district. The new district gets an appropriation of \$4000. The bill provides that at least 50 electors shall meet within ten days to select eight persons whose names shall be presented to the Governor for appointment of directors.

San Benito.

CHEESE.—*Hollister Free Lance*, March 15: From Geo. F. Mitchell, of San Justo dairy, it is learned that that establishment is turning out daily 22 cheeses each weighing 25 pounds, thus making a daily output of 550 pounds. The cheese is made from the milk furnished by 150 cows of the best breed, all owned on the ranch. Mr. Mitchell reports a good demand for the cheese, nearly all of which is consumed in S. F., where his brand is a special favorite. The cheese is also shipped to Mexico, the Sandwich islands and other markets. The new separator recently purchased works to a charm and greatly facilitates the process of cheese-making.

San Diego.

THE WOOL CLIP.—*Otay Press*, March 14: An immense crop of wool for the spring clip is assured. Shearing commences on Monday, May 11th, at the ranch of Hugh O'Neill. The number to be shorn at this place will exceed 2000 head, with a full year's fleece; the sheep being perfectly clean and in excellent condition assures a big yield. The next place will be at Scuseck Bros. This is the largest shearing firm in the Otay. The sheep belonging to this firm will exceed 10,000 head. A number will

shear sheep in this place, aggregating something over 30,000 head. The grass in the valley is better this year than any preceding four years, and at the present time has not nearly attained its growth.

AN EXPERIENCE IN BEE-KEEPING.—*San Diegoan*: I commenced the season of 1888 with three colonies of Italian bees, using Langstroth hives with movable frames. The bees had plenty of honey to stimulate active increase. Plenty of honey came in all through the season for fast breeding and for building up strong colonies ready for the grand flow of honey which began August 15th and practically closed Oct. 1st. With the use of 200 empty combs, I increased my three colonies to 27. I worked one colony for queen-raising, three colonies for comb honey, and 21 colonies for extracted honey. I sold two colonies. The results were: 2400 lbs. extracted honey, at 10c.....\$240 00 100 lbs. comb honey, at 15c..... 15 00 Two colonies sold..... 5 00 25 colonies left, worth..... 150 00

Total.....\$410 00 Deduct three colonies on hand to begin with, worth..... 18 00 21 hives at \$1.50..... 31 50

Total expenses.....\$ 49 50

Net profit.....\$360 50

SILKWORMS RUN WILD.—*National City Record*: T. J. Davis of Oneonta, speaking of the appropriation of the Government for the propagation of the silkworm, wants an experimental station at Oneonta, and gives good reasons why it should be placed there. Cocoons are found there in a wild state, and as they seem to thrive, Mr. Davis thinks no better place could be found. The presence of the worms there is explained by the fact that years ago an Italian imported them and a lot of mulberry trees, to engage in silk culture. Before the young trees leaved, the worms, it was thought, died, and they were thrown away. The Italian left and the trees pined away from want of care. It is now believed that the worms were not dead, and that in what is known as wild buckwheat, they found excellent nourishment. At any rate, Mr. Davis has between 300 and 400 cocoons.

San Joaquin.

IRRIGATED ALFALFA.—*Lodi Sentinel*, March 16: The raising of alfalfa near Lodi has proved very profitable for E. Lawrence and John Hutchins, the proprietors of a private irrigating ditch. Mr. Lawrence has 20 acres and Mr. Hutchins has 30 acres in alfalfa, most of which was planted two years ago this spring. The first year's crops, of which there were four, averaged one ton per acre per cutting. The second year there were five cuttings, each of which gave two tons of hay per acre, or ten tons per acre for the year. The hay sold for \$9 per ton, or a gross income of \$90 per acre. Both gentlemen said the expense of watering the land and harvesting and housing the crops would cost not to exceed \$30 per acre per year, thus giving a net income from an acre of \$60 per year. Besides the hay, there were pastured on the land from Oct. 1st, the date of the last cutting last fall, to the first day of the present month—a period of five months—3 head of stock per acre. Counting the pasturage at current rates, it would bring the net income per acre up to \$75. But then such results can only be obtained through irrigation.

OAKDALE DAM GONE.—The dam of the Oakdale Irrigation Co., about 1½ miles below Knights Ferry, has been carried away by the rain, and the company is out the cost of the structure. The report was denied, but a letter from engineer Unthank of the Stockton Land and Water Co., received last evening, confirmed the bad news. The three dams of the Land and Water Co. are standing the test nobly. The head dam has four feet of water running over it, but does not show any signs of weakening.

San Luis Obispo.

FINE ORANGES.—*S. L. O. Tribune*: W. C. Davis called Saturday to show us a magnificent basket of oranges from the orchard of M. J. P. Andrews, which he was about to send to the State Board of Trade in S. F., to be put on exhibition there. The fruit was of the Navel and Mediterranean Sweet varieties, and as perfect in color, shape and flavor as any we have ever seen.

A HORSE FARM.—Mr. Shackleford has not only tilled the soil and established its merits beyond controversy, but he has all the Kentuckian's love for fine horses, and in one corral we saw him surrounded by 21 brood mares and 18 colts, all well bred, handsome creatures, as gentle as kittens and about as playful. But the horses are the glory of the stock-farm. They are three in number—"Young Nutwood," a splendid two-year-old, full of grace and fire, with a stride that indicates great speed; "Colmar," a con'-black Percheron, imported from France, with satin-like hair, long flowing mane and soft lustrous eye, yet weighing three-quarters of a ton, with every massive limb looking as if it were carved by the most artistic hand out of polished ebony; "Young America," whom hundreds will remember at last year's District Fair as a bright cherry bay, a grandson of the celebrated old imported "Suffolk Punch" and worthy to rival his grandsire's fame for beauty.

TWO YEARS' DOINGS.—*Templeton Times*: The property on the Santa Ysabel owned (we believe to some extent jointly with others) by

(Continued on page 276.)

SEND US

YOUR NAME

—AND—

ADDRESS

For a Copy of our

Spring Catalogue!

WHICH WILL BE

Issued on the 15th of March.

NEW GOODS

—FOR—

SPRING

Are here in every department.

SPECIAL ATTENTION

Is called to our extensive lines of

WASH FABRICS.

FRENCH AND AMERICAN SATEENS

At 10c, 12½c, 20c and 35c per yard.

DRESS GINGHAMS

At 10c, 12½c and 16½c per yard.

BRADETTTE GINGHAMS

In suits, both plain and fancy material. Per suit, \$2.

Novelties in White Goods,

FANCY, OPEN and CHECK WORK.

Samples free to any address. State what kind you wish. It will pay you to trade with us.

Hale Bros. & Co.

Cor. Ninth & K Sts.

Sacramento, Cal.

CALIFORNIA VICTOR MOWER

IMPROVED!
KING OF ALFALFA CUTTERS.

AGENTS WANTED.

Only Two Horses required to draw a 6-ft. Victor
in Heavy Alfalfa.

NO JOINT IN FINGER BAR.

Pitman Short and Strong. Draft Direct from Cutting
Apparatus.

WILL REPLACE

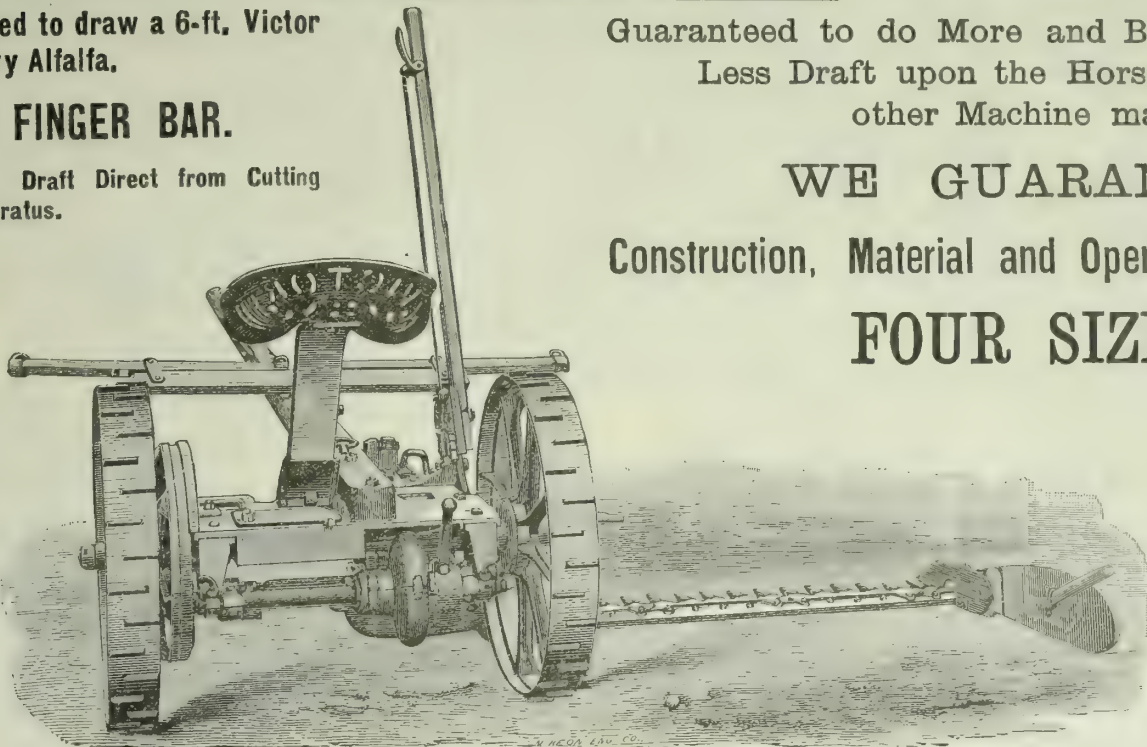
FREE OF COST

ANY PART

Found Defective.

GUN METAL

Bearings.



Guaranteed to do More and Better Work, with
Less Draft upon the Horses, than any
other Machine made.

WE GUARANTEE

Construction, Material and Operation in the Field.

FOUR SIZES:

4 Feet Cut,
4 1-2 Ft. Cut,
5 Feet Cut,
6 Feet Cut.

NO

Side - Draught.

If there is no Agent for the VICTOR in your vicinity, write us direct for Prices and Terms.

JUDSON MANUFACTURING CO.,

14 & 16 Fremont St.,

San Francisco.

HARTMAN STEEL WIRE PICKET FENCE.

A Fence that is at once Handsome and practically Indestructible, and yet is Cheaper than a
Wooden Fence and Twice as Cheap as the Cheapest Iron Fence. The only Fence
that Protects and Ornaments a Lawn without concealing it.

CHEAPER

Than a Wooden Fence

—AND—

TWICE AS CHEAP

—AS THE—

Cheapest Iron Fence.

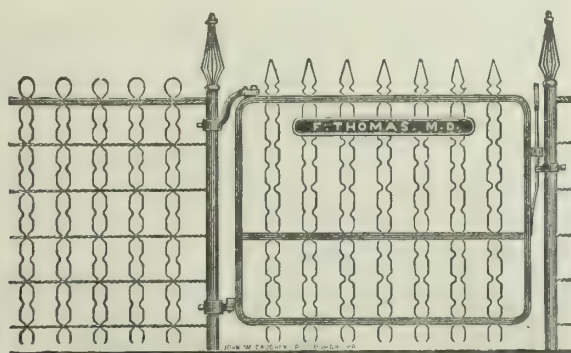


FIG. 1.

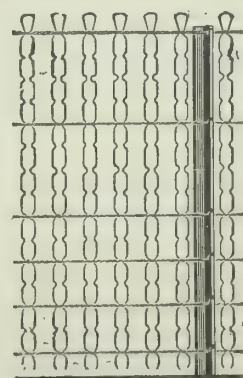


FIG. 2.

— FOR —

Lawn,
Garden,
Park,
Cemetery and Field.

Send for Catalogue, giving full de-
scription.

In Fig. 1 is represented our "ROUND TOP" Fence, with "SPEAR TOP" Gate; a very handsome combination for an ornamental fence.

Our fence is not a netting; it is a FENCE, with properly proportioned top-rail and posts, which cannot rot or rust, being either galvanized or painted with rust-proof paint. It presents no flat surfaces to obstruct the view, or be affected by the wind. The posts are driven deep into the ground and ANCHORED THERE.

We also make a "FIELD FENCE" (Fig. 2), especially for farm purposes, which will securely enclose pigs and sheep as well as cattle. It CANNOT INJURE THE STOCK, and is handsome and strong. It differs from our other styles in height, needs no "top rail" or ornamental posts, and is therefore proportionately cheaper.

Farmers, beautify your homes by placing our ORNAMENTAL FENCE round your house and lawn, and protect your stock with our FIELD FENCE.

PRICE LIST OF SIZES NOW IN STOCK.

STYLE.	HIGHT.	WIRE.	GALVANIZED.	PAINTED.		
A—Spear-Top Fence.....	24 inches	No. 6	18 cents per foot	13 cents per foot	Single Gates, 4 feet wide, 48 inches high.....	Each, \$ 6 50
A— " " ".....	37 "	No. 6	23 " " "	18 " " "	Double " 9 " " 37 " ".....	" 12 50
B—Round " ".....	36 "	No. 5	23 " " "	18 " " "	" " 9 " " 42 " ".....	" 15 00
D—Field Fence.....	46 "	No. 8		14 " " "	Gate and Corner Posts, with Ornamental Top.....	" 2 75
					Line Posts, with Adjustable Top and Anchor.....	" 1 00
Single Gates, 3 feet wide, 37 inches high.....				Each, \$ 3 75	Farm Posts, with Anchor.....	" 70
" " 3 " " 42 " ".....				" 5 00	Steel Hitching Posts, with Chain and Snap.....	" 2 00
" " 3 1/2 " " 42 " ".....				" 5 75	Top Rail, Drilled and Fitted.....	Per Foot, 12

Our Fence is very Much Cheaper than any Other that can Approach it in Merit.

Why—we will sell you our handsome strong Steel Picket Fence for as little as it costs, in most towns, to paint a wooden one.

Do not for a moment think of buying a fence until you have seen ours.

ASK THE NEAREST DEALER for full illustrated catalogue and price-list, or write to us. It will be mailed you free from

BAKER & HAMILTON, General Agents,

SAN FRANCISCO, CAL.

and

SACRAMENTO, CAL.

Agricultural Notes.

(Continued from page 274.)

R. M. Shackleford consists of 1389 acres, which two years ago was a cattle-tramped wilderness of which many men, who thought they knew all about it, predicted that it could never be used for agriculture or horticulture.... Upon this land we saw last Wednesday 14,750 trees in the second year of their growth, of which there are 55 acres in prunes and the balance in Picholine olives. These trees are all vigorous and thrifty, and the percentage of replanting has been wonderfully small. There are wheat-fields with growing grain that we venture to say cannot be excelled in any part of the State. There are acres of sainfoin, which after diligently working underground for two months in the manufacture of roots, is now beginning to clothe the surface with its nutritive grass.

Tulare.

GRAPES AND ORANGES. — Visalia Times, March 14: M. Madden of San Jose, now owner of the Boyd & Thomas orchard in Stokes valley, 15 miles north of Visalia, was in town Thursday for the purpose of purchasing 50 orange trees for his orchard. He already has 100 trees in bearing and they are heavily loaded this year with superior oranges.... John Fulgham a few weeks since received a present of 300 grape-cuttings, on condition he set them out on his place 12 miles southwest of this city, on Packwood creek. This started him to thinking about the raisin industry, and he has now secured 15,000 cuttings, which he is rooting and will plant out.... John Kurtz, who lives three miles north of Lemoore, has just completed setting out 50 acres of his ranch to raisin grapes, and 25 acres more to fruit trees.

HANFORD ITEMS.—Twenty-seven carloads of sheep were shipped through Hanford, from Huron, last Monday.... A great horse show is being talked of, probably for the closing Saturday in March.... A meeting of farmers to discuss the cheese-factory question will be held on the day of the horse exhibit. Many farmers are becoming fully interested. Mr. Cohoe, a practical cheese-maker, says the alfalfa raised in this country will bring \$10 a ton if run through the cheese-press.

MORE HARES KILLED.—Traver Advocate, March 16: The rabbit-drive last Saturday was another successful and enjoyable event. The corral was located in the same place and the drive was over the same ground as the preceding Saturday. Notwithstanding this, about the same number of rabbits was killed. There was a good attendance. The drive was conducted in a more systematic manner than the previous one, with the result that, notwithstanding the fact that not so many were rounded up, very few of the bunnies escaped after they got within the wings. They were given time and were not hurried into the pen. The drivers came in a solid phalanx after the wings were reached, and we did not see a rabbit escape after the line of beaters was formed. About 1000 rabbits were exterminated. There were numerous young ones in the lot, and many of the drivers took one or two home with them for a meal, and others took a few to feed to their poultry. Another drive takes place to-day, with the corral moved just one mile east of the place where it has been for the past two weeks.... What an excellent place Traver would be for a chicken-canning establishment! With the abundance of material furnished "free gratis for nothing" by our rabbit-drives, the manufacturers of genuine canned chicken and chicken tamales ought to wax fat here.

NEVADA.

IRRIGATION LAW.—Silver State, March 16: The Act passed by the Legislature at the recent session to regulate the use of water for irrigation and other purposes, provides for the appointment of eight Commissioners, one from each water-district into which the Act divides the State. Each Commissioner shall receive \$5 per day for each day in the year he is attending to the duties of his office. District No. 1 includes all lands irrigated by the Truckee river and its affluents; No. 2, by the Carson; No. 3, by the East and West Walker rivers; No. 4, by the Humboldt; No. 5, by the Owyhee; No. 6, by Reese river; No. 7, by White river; No. 8, all land irrigated by Muddy river and its tributaries. The Commissioners are empowered to divide the water in natural lakes and streams among ditches taking water from the same; also to construct reservoirs at the headwaters of streams for storage purposes.

OREGON.

HORSE FAIR.—Salem, March 9: A stallion show was held in this city to-day, an immense crowd of people being present. Not so many horses were displayed as on some former occasions, but there was better stock and more valuable. Twenty-six fine stallions were in a line, big and little, race-horse and draft.

HORTICULTURAL.—Salem, March 13: In compliance with the law passed at the recent session of the Legislature, creating a Horticultural Commission, Gov. Penneyer to-day appointed as such commission J. R. Cardwell and Henry E. Dosche of Portland, R. S. Wallace of Salem, J. D. Whitman of Medford, Jackson Co., James A. Varney of The Dalles, and James Hendershott of Cove, Union Co.... Portland, March 14: The Oregon Fruit-Growers' Union has filed articles of incorporation. The incor-

porators are: J. R. Cardwell, S. A. Clarke, Ethan W. Allen, O. P. S. Plummer and Henry E. Dosche. The capital stock is fixed at \$50,000. The object of the union is to promote the fruit interests of this State, to provide places for the sale of shipments of fruit products, and to employ all means to create a greater demand for Oregon fruit than has hitherto existed.

PREPARING FOR THE STATE FAIR.—Salem Cor. Oregonian, March 11: The State Board of Agriculture, which has just held its session in this city, took such preliminary steps as leave no doubt of a successful State Fair this year. One hundred stalls, 10x12 feet, are to be erected for speed horses along the fence behind the grand stand, to enable this class of attendants to be separate from the agricultural fair proper, and to be always convenient to the race-track. The Executive Committee was authorized to lease ground to firms dealing in agricultural implements for the erection of permanent exhibition buildings. The board elected Messrs. Looney, DeLashmott, Galloway and Wilson, with President Apperson chairman, as the Executive Committee. D. S. K. Buick, John G. Wright and M. Wilkins were elected Finance Committee. M. Wilkins of Lane county was appointed to make a collection of grains and grasses for a display at the fair. John G. Wright of Salem was appointed to make a collection of fruits and vegetables. The Board of Agriculture extended an invitation to Mrs. Wm. England, Mrs. Eugene Breymann, Mrs. Louis Kahn, Mrs. A. T. Gilbert and Miss Sallie Bush to assist in arranging the fruits and vegetables at the next fair.

A Lively Time With Hares.

The following spirited account of a recent hare-herding and slaughter is abridged from the Traver Advocate, which in this connection reproduces the "Ideal Sketch of a Rabbit-Drive" from the Rural Press of Jan. 14, 1888, commending it as a good portraiture of the affair described:

Last Saturday was a holiday to most of the people of Traver and vicinity, as a big rabbit-drive was announced to take place on that day, near town. About a mile of wire fencing had been purchased by the farmers, and this, with a small corral made of long laths, was set up about half a mile from Cross Creek switch and 3 miles southeast of Traver. Teams continued to arrive in Traver from early morning till the middle of the afternoon, and there were many visitors from Reedley, Dinuba, Visalia and other towns near by. The rendezvous was at Joseph Alcorn's place. It was 2 o'clock before the drive commenced, and by that time there was a string of horsemen, buggies and footmen nearly four miles long, extending from Alcorn's place to Traver, and thence south to the corral.

The signal for the start was given by teams from the rendezvous striking due south, to complete the square, of which the corral served as the south end, the three living sides closing in on the doomed rabbits.

The drive took in a territory about three miles square. When within a mile of the corral nearly all the men in the party got out and walked. They were all armed with sticks about 3 feet in length, and many a bunny was sent to the happy grazing-grounds thereby while trying to escape from the drivers. The shouts from the crowd, which at first were few, increased as the drive progressed until, when the pen was reached, pandemonium reigned and most of the males were hoarse with shouting.

The corral was constructed in the usual manner, with two wings, each half a mile long, while in the corner of the triangle was the pen, about 20x20 feet in size. As the crowd closed up toward the pen, there must have been fully 3000 rabbits in view. But alas! the wire fence had been poorly fastened to the ground, and the pen was too small. The rabbits began to escape under the fence, and the gunners, about 10 in number, who were on the opposite side from the drivers, began to fire into the escapes, who ran along the side of the fence, completely dazed, and the hunters sometimes got four at a shot. But the bunnies inside the inclosure heard the guns, and not heeding the hundreds of people and teams between them and their haunts, dashed for liberty. Many were killed before they could escape, but for the 1000 which were killed, 2000 got away.

The pen was well filled with the rabbits, and the boys in the crowd were given a club each and told to "sail in" and kill them. And they did, with a will. Ker-whack went the clubs, wielded by vigorous young arms, and at nearly every stroke a rabbit bit the dust.

After the carnage we went over the battle-ground. Dead rabbits were visible for two miles, their numbers increasing as the corral was neared, and here they were piled up by dozens, and inside the pen by hundreds, although the number was small compared with what there should have been from the number driven to the corral.

WHAT BECAME OF THE MONEY?—It is estimated that of the sixty millions sterling sunk in the Panama canal bubble, ten per cent has gone to French bankers, five per cent has been paid in bribes to the French press, ten per cent has gone to the inner members of the canal ring, who have had the giving out of the contracts, and most of the balance has gone to enrich the contractors. It is estimated that less than one-half of the work has even now been done.

DOCTORING IN THE DARK.

No sensible surgeon will attempt the performance of an operation involving human life in a room secluded from the proper amount of light. A practitioner will not attempt the diagnosis of a complicated disease unless he can see the sufferer and make an examination upon which to base his opinion relative to the course of treatment necessary to bring about a complete restoration of health.

Notwithstanding the impropriety of such action, there seems to be a great deal of doctoring done in the dark.

By this it is not intended that a literal meaning be inferred, but that a great many mistakes are committed because of the darkness which is the result of ignorance. It needs no illustrations to demonstrate that gross ignorance has caused many fatal mistakes to be made in the treatment of diseases by those who profess to be learned in the art of healing.

In many diseases several organs are more or less implicated, and what seems a primary ailment may be one quite remote. For instance, a severe headache may have its origin in a disturbed stomach. On the other hand, sickness at the stomach may be caused by a blow on the head. The seat of typhoid fever is in the upper part of the bowels, but most of its worst symptoms are often in the brain.

Symptoms of disease, as well as diseases themselves, are oftentimes followers or concomitants of some unsuspected organic disease, and this is peculiarly true of lung, liver, brain and heart diseases in general, for it is now known that they are the result of kidney disease, which shows its presence in some such indirect manner.

Several years ago a gentleman became convinced of the truth of this, and through his efforts the world has been warned of kidney disease, and as a result of continued effort a specific known as Warner's Safe Cure was discovered, the general use of which has shown it to be of inestimable benefit in all cases where kidney treatment is desirable or necessary.

When consumption is threatened see to it that the condition of the kidneys is immediately inquired into, and if they are found diseased, cure them by an immediate use of Warner's Safe Cure and the symptoms of lung decay will rapidly disappear.

There are too many instances already recorded of the terrible results produced by a lack of knowledge concerning the cause of disease, and human life is of too much importance to be foolishly sacrificed to bigotry or ignorance.

TURNING A LARGE RIVER FROM ITS COURSE.—A company has been formed in France, headed by a well-known Alsatian manufacturer, for the purpose of diverting the Gaiers river to St. Christophe, where a fall of 200 meters would be thus obtained, representing a force of 4000 horse power, which would be utilized in developing electricity for the production of aluminium by a new process from the clay found in the district. It is asserted that by means of the process in question, aluminium, which is at present so costly, can be produced at a price that will very little exceed that of the cheapest metals.

Injurious Insects of the Orchard, Vineyard Field, Garden, Conservatory, etc.,

Remedies for their Extermination.

By MATTHEW COOKE.

Late Chief Executive Horticultural Officer of California. Illustrated with over 750 wood-cuts and 35 pages of classified illustrations. This book is designed for the use of orchardists, vineyardists, farmers and others interested in the subjects treated. It is designed to convey practical information concerning some of the species of insects injurious to the industries of cultivators of the soil, and those interested in earth produce generally. Price \$4, postpaid. For sale by Dwyer & Co., publishers, 220 Market St., San Francisco.

ORANGE CULTURE IN CALIFORNIA.

A Timely Treatise.

Now that the interest in the culture of the orange is extending so as to embrace nearly all parts of the State, a book giving the results of experience in parts of the State where the growth of the fruit has been longest pursued will be found of wide usefulness. "Orange Culture in California" was written by Thos. A. Garey of Los Angeles, after many years of practical experience and observation in the growth of the fruit. It is a well-printed hand-book of 196 pages, and treats of nursery practice, planting of orange orchards, cultivation and irrigation, pruning, estimates of cost of plantations, best varieties, etc.

The book is sent postpaid at the reduced price of 75 cents per copy, in cloth binding. Address Dwyer & Co., Publishers "Pacific Rural Press," 220 Market St., S. F.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

Picturesque Californian Homes.

Vols. 1 and 2, each containing 40 plates, plans, details and specifications of houses—City and Country Homes—costing from \$700 to \$15,000, and adapted to families having good taste and a moderate means.

This work is designed to meet the wants of that large number of persons who have but a limited amount of money at their command, and in building a home wish to use it to the best advantage. Drawn by Samuel and Joseph C. Newsom, Architects, San Francisco, who have taken much pains in its preparation, and confidently assert that mechanics, clerks, salaried men, workmen of every calling contemplating building, carpenters and builders in cities, towns and villages, will find this book a useful aid, worth many times its cost in the information and practical suggestions which it gives.

The Plans are clear, and finely drawn on Lithograph Plates, and handsomely printed; size, 9x13 inches. Subscribers to this paper (old or new), who have paid in advance of the date of application for this premium, can have the same by paying 50 cents additional for Vol. 1 (bound in paper), or 75 cents for Vol. 2 (bound in cloth). Sent by express unpaid, or on receipt of 80 cents (for Vol. 2) or 80 cents (for Vol. 1), postpaid.

Our Seed Offering—1889.

Great Inducements for New Subscribers.

To encourage gardening and further extend the circulation of the PACIFIC RURAL PRESS, we will offer, while this notice remains in our columns, to furnish to all old or new subscribers the following seeds on the favorable terms named below:

VEGETABLE SEEDS.		93 Antirrhinum Majus,	
83 Varieties.	94 Cactia Cocinea (Tas-	95 Can panula Speculum,	5
In Papers, postpaid.	sel flower), mixed.	96 Can panula Speculum,	5
1 Early Bloom Turnip....	10	97 Can panula Speculum, <th>5</th>	5
2 Early Extra Bassano....	10	98 Can panula Speculum, <th>5</th>	5
3 White Sugar....	10	99 Can panula Speculum, <th>5</th>	5
4 Yellow Sugar....	10	100 Can panula Speculum, <th>5</th>	5
5 Early Long Dark Bird....	10	101 Can panula Speculum, <th>5</th>	5
CABBAGE.		102 Can panula Speculum, <th>5</th>	5
6 Early York....	5	103 Can panula Speculum, <th>5</th>	5
7 Early Dutch....	10	104 Can panula Speculum, <th>5</th>	5
8 Early Wakefield....	10	105 Can panula Speculum, <th>5</th>	5
9 Early French Oxheart....	10	106 Can panula Speculum, <th>5</th>	5
10 Large Late Drumhead....	10	107 Can panula Speculum, <th>5</th>	5
11 Large Late Drumhead....	10	108 Can panula Speculum, <th>5</th>	5
12 Red Dutch (pickling)....	10	109 Can panula Speculum, <th>5</th>	5
CELERY.		110 Can panula Speculum, <th>5</th>	5
13 White Solid....	10	111 Can panula Speculum, <th>5</th>	5
14 Early Paris....	10	112 Can panula Speculum, <th>5</th>	5
CAULIFLOWER.		113 Can panula Speculum, <th>5</th>	5
15 Extra Early Forcing....	10	114 Can panula Speculum, <th>5</th>	5
16 Long Orange....	10	115 Can panula Speculum, <th>5</th>	5
17 Early Horn....	10	116 Can panula Speculum, <th>5</th>	5
18 White Belgian....	5	117 Can panula Speculum, <th>5</th>	5
19 Half Long Dutch....	10	118 Can panula Speculum, <th>5</th>	5
CUCUMBER.		119 Can panula Speculum, <th>5</th>	5
20 White Spine....	10	120 Can panula Speculum, <th>5</th>	5
21 Early Chatter....	10	121 Can panula Speculum, <th>5</th>	5
22 Early Framers....	5	122 Can panula Speculum, <th>5</th>	5
23 Long Green....	5	123 Can panula Speculum, <th>5</th>	5
24 Long Green....	5	124 Can panula Speculum, <th>5</th>	5
25 Long Green....	5	125 Can panula Speculum, <th>5</th>	5
26 Early Curled Silesia....	10	126 Can panula Speculum, <th>5</th>	5
27 Early Curled Silesia....	10	127 Can panula Speculum, <th>5</th>	5
28 Early Curled Silesia....	10	128 Can panula Speculum, <th>5</th>	5
29 Early Curled Silesia....	10	129 Can panula Speculum, <th>5</th>	5
30 Early Curled Silesia....	10	130 Can panula Speculum, <th>5</th>	5
31 Large York Cantaloupe....	10	131 Can panula Speculum, <th>5</th>	5
32 Extra Fine Nutmeg....	10	132 Can panula Speculum, <th>5</th>	5
33 Canasta Green....	10	133 Can panula Speculum, <th>5</th>	5
34 Montreal Nutmeg....	10	134 Can panula Speculum, <th>5</th>	5
35 Canasta Queen W in loc.	10	135 Can panula Speculum, <th>5</th>	5
36 Sweet S. W. Watermelon	10	136 Can panula Speculum, <th>5</th>	5
37 S. W. S. W. Watermelon	10	137 Can panula Speculum, <th>5</th>	5
38 S. W. S. W. Watermelon	10	138 Can panula Speculum, <th>5</th>	5
39 S. W. S. W. Watermelon	10	139 Can panula Speculum, <th>5</th>	5
40 S. W. S. W. Watermelon	10	140 Can panula Speculum, <th>5</th>	5
41 S. W. S. W. Watermelon	10	141 Can panula Speculum, <th>5</th>	5
42 S. W. S. W. Watermelon	10	142 Can panula Speculum, <th>5</th>	5
43 S. W. S. W. Watermelon	10	143 Can panula Speculum, <th>5</th>	5
44 S. W. S. W. Watermelon	10	144 Can panula Speculum, <th>5</th>	5
45 S. W. S. W. Watermelon	10	145 Can panula Speculum, <th>5</th>	5
46 S. W. S. W. Watermelon	10	146 Can panula Speculum, <th>5</th>	5
47 S. W. S. W. Watermelon	10	147 Can panula Speculum, <th>5</th>	5
48 S. W. S. W. Watermelon	10	148 Can panula Speculum, <th>5</th>	5
49 S. W. S. W. Watermelon	10	149 Can panula Speculum, <th>5</th>	5
50 S. W. S. W. Watermelon	10	150 Can panula Speculum, <th>5</th>	5
51 S. W. S. W. Watermelon	10	151 Can panula Speculum, <th>5</th>	5
52 S. W. S. W. Watermelon	10	152 Can panula Speculum, <th>5</th>	5
53 S. W. S. W. Watermelon	10	153 Can panula Speculum, <th>5</th>	5
54 S. W. S. W. Watermelon	10	154 Can panula Speculum, <th>5</th>	5
55 S. W. S. W. Watermelon	10	155 Can panula Speculum, <th>5</th>	5
56 S. W. S. W. Watermelon	10	156 Can panula Speculum, <th>5</th>	5
57 S. W. S. W. Watermelon	10	157 Can panula Speculum, <th>5</th>	5
58 S. W. S. W. Watermelon	10	158 Can panula Speculum, <th>5</th>	5
59 S. W. S. W. Watermelon	10	159 Can panula Speculum, <th>5</th>	5
60 S. W. S. W. Watermelon	10	160 Can panula Speculum, <th>5</th>	5
61 S. W. S. W. Watermelon	10	161 Can panula Speculum, <th>5</th>	5
62 S. W. S. W. Watermelon	10	162 Can panula Speculum, <th>5</th>	5
63 S. W. S. W. Watermelon	10	163 Can panula Speculum, <th>5</th>	5
64 S. W. S. W. Watermelon	10	164 Can panula Speculum, <th>5</th>	5
65 S. W. S. W. Watermelon	10	165 Can panula Speculum, <th>5</th>	5
66 S. W. S. W. Watermelon	10	166 Can panula Speculum, <th>5</th>	5
67 S. W. S. W. Watermelon	10	167 Can panula Speculum, <th>5</th>	5
68 S. W. S. W. Watermelon	10	168 Can panula Speculum, <th>5</th>	5
69 S. W. S. W. Watermelon	10	169 Can panula Speculum, <th>5</th>	5
70 S. W. S. W. Watermelon	10	170 Can panula Speculum, <th>5</th>	5
71 S. W. S. W. Watermelon	10	171 Can panula Speculum, <th>5</th>	5
72 S. W. S. W. Watermelon	10	172 Can panula Speculum, <th>5</th>	5
73 S. W. S. W. Watermelon	10	173 Can panula Speculum, <th>5</th>	5
74 S. W. S. W. Watermelon	10	174 Can panula Speculum, <th>5</th>	5
75 S. W. S. W. Watermelon	10	175 Can panula Speculum, <th>5</th>	5
76 S. W. S. W. Watermelon	10	176 Can panula Speculum, <th>5</th>	5
77 S. W. S. W. Watermelon	10	177 Can panula Speculum, <th>5</th>	5
78 S. W. S. W. Watermelon	10	178 Can panula Speculum, <th>5</th>	5
79 S. W. S. W. Watermelon	10	179 Can panula Speculum, <th>5</th>	5
80 S. W. S. W. Watermelon	10	180 Can panula Speculum, <th>5</th>	5
81 S. W. S. W. Watermelon	10	181 Can panula Speculum, <th>5</th>	5
82 S. W. S. W. Watermelon	10	182 Can panula Speculum, <th>5</th>	5
83 S. W. S. W. Watermelon	10	183 Can panula Speculum, <th>5</th>	5
84 S. W. S. W. Watermelon	10	184 Can panula Speculum, <th>5</th>	5
85 S. W. S. W. Watermelon	10	185 Can panula Speculum, <th>5</th>	5
86 S. W. S. W. Watermelon	10	186 Can panula Speculum, <th>5</th>	5
87 S. W. S. W. Watermelon	10	187 Can panula Speculum, <th>5</th>	5
88 S. W. S. W. Watermelon	10	188 Can panula Speculum, <th>5</th>	5
89 S. W. S. W. Watermelon	10	189 Can panula Speculum, <th>5</th>	5
90 S. W. S. W. Watermelon	10	190 Can panula Speculum, <th>5</th>	5
91 S. W. S. W. Watermelon	10	191 Can panula Speculum, <th>5</th>	5
92 S. W. S. W. Watermelon	10	192 Can panula Speculum, <th>5</th>	5
93 S. W. S. W. Watermelon	10	193 Can panula Speculum, <th>5</th>	5
94 S. W. S. W. Watermelon	10	194 Can panula Speculum, <th>5</th>	5
95 S. W. S. W. Watermelon	10	195 Can panula Speculum, <th>5</th>	5
96 S. W. S. W. Watermelon	10	196 Can panula Speculum, <th>5</th>	5
97 S. W. S. W. Watermelon	10	197 Can panula Speculum, <th>5</th>	5
98 S. W. S. W. Watermelon	10	198 Can panula Speculum, <th>5</th>	5
99 S. W. S. W. Watermelon	10	199 Can panula Speculum, <th>5</th>	5
100 S. W. S. W. Watermelon	10	200 Can panula Speculum, <th>5</th>	5

For \$1.00 we will furnish new subscribers the Pacific Rural Press for three months, and \$1.00 worth of the above seeds. For \$1.75 the Rural six months and \$1.00 worth of seeds. For \$3.25 the Rural 134 months, and \$1.00 worth of seeds. (When preferred, a duplicate bill for seeds to be furnished at any time within 12 months will be given.)

The seeds will be carefully forwarded (within a few days), post paid, from one or more of our leading and reliable seed-men, whose name will accompany the package. In ordering, write on a separate sheet the number only of each article wanted as numbered, together with your address.

No better seeds for this coast's use can be secured. As far as convenient we should like to hear the results obtained from the seeds we thus furnish.

For other kinds of seeds, or for seeds in larger packages, patrons are referred to reliable seed-men advertising in this paper. We wish to aid in increasing the planting and cultivation of gardens.

Old subscribers can advance payment so that their subscriptions will be paid the same length of time in advance and receive the same terms as above. Those who remit before seeing this offer can send the additional amount which would have entitled them to a premium, and receive the same by stating which numbers they prefer.

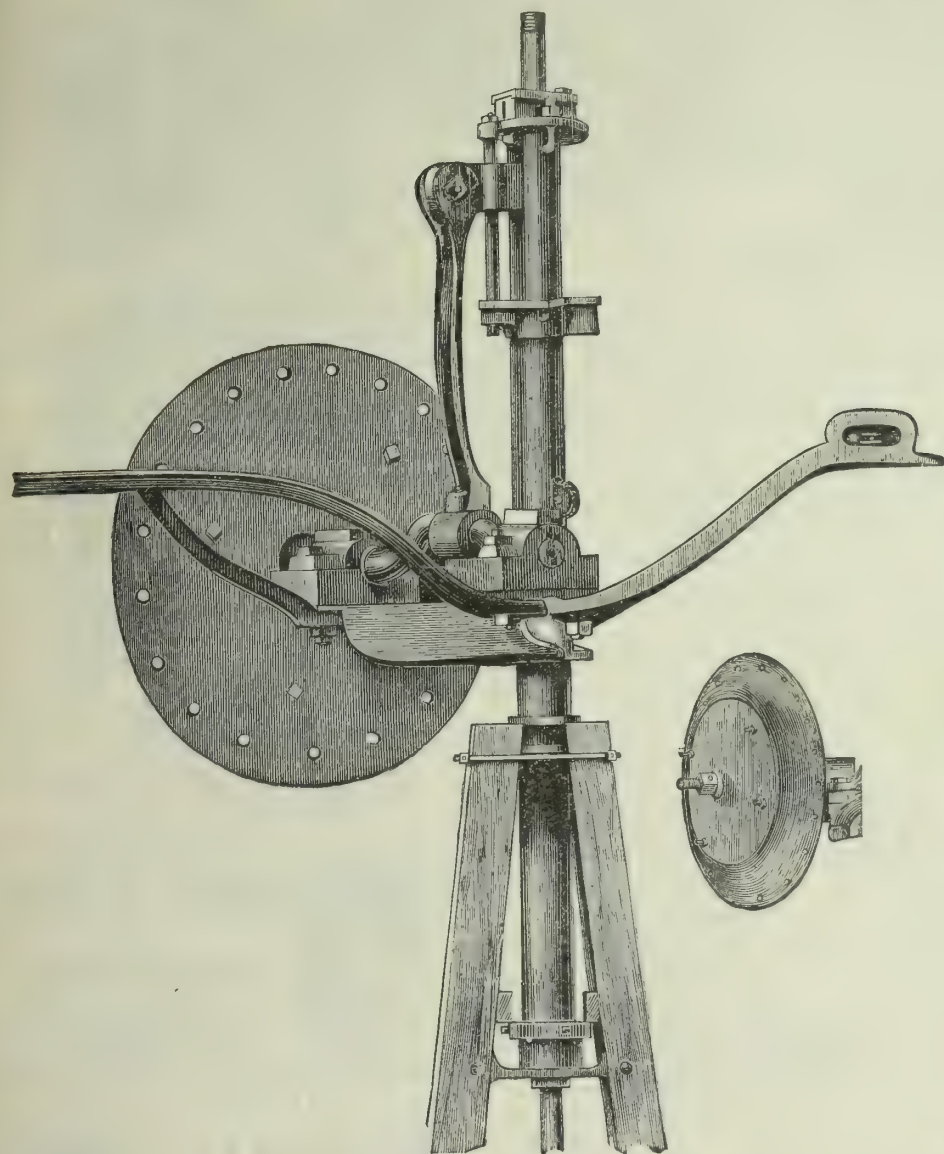
We are not going to embark in the regular seed business, and have not time to investigate or answer many questions of private interest only, nor respond to orders received without remittances.

Subscribers will please notify neighbors who do not take this paper of this offer, and the merits of the Rural.

"De man wot knows it all is alluz a-makin change, a-buyn' ob experience." The man who does not know it all "knows it all" about Pumps can find out a great deal about them in *Grimshaw's PUMP CATECHISM*. By mail, postpaid, \$1. Dewey & Co., 220 Market St., S. F., Cal.

BOW, WOW, WOW, WOW, WOW!

We have been BARKED AT before; but WE DON'T MIND IT. BECAUSE we are selling lots of Mills. FOR INSTANCE, we shall ship this week not less than 30 Mills into the "GREAT SAN JOAQUIN VALLEY." All sold, too—not one consigned. What do our COMPETITORS say to that?



LOOK
AT THE
WORKING
PARTS

OF OUR MILL!

ALL IRON
Of the Best Quality.
NOT

Made of Planks Sawed-off and bolted together.

LETTERS OF RECOMMENDATION.

We might fill this paper full, but will call attention to the

"DANDY CATALOGUE"

We will have out in about ten days.

SEND FOR ONE

To

PACIFIC MANUFACTURING COMPANY,

No. 575 Mission Street, - - - - - San Francisco, Cal.

We have moved into a LARGER STORE, notwithstanding our Competitors (?).

SACRAMENTO, PORTLAND, Etc., Etc.

Buy the FISH BROTHERS

FARM AND SPRING



And You will Have the BEST.

EUGENE J. GREGORY. FRANK GREGORY.
[Established 1852.]
GREGORY BROTHERS CO.,
Commission : Merchants,
PACKERS AND SHIPPERS OF
CALIFORNIA FRUIT AND PRODUCE.
126 and 128 J St., - Sacramento, Cal.
San Francisco Office, 313 Davis St.

WHALE OIL SOAP
— AND —
Codlin Moth and Insect Exterminator.
ALLYNE & WHITE,
112 and 114 Front Street, - - - San Francisco, Cal.

ADDRESS:
Frank Brothers,
—DEALERS IN—
Agricultural
Implements,
BUGGIES, HARNESS,
ETC., ETC.
33 and 35 MAIN ST.,
SAN FRANCISCO, CAL.

Buckeye
JUNIOR AND SENIOR
LAWN MOWER.

GRASS-BOX
ATTACHMENT.

Easy to Work, Strong and Durable.
Most Reliable Mower in Use.
TRY ONE and YOU WILL BUY IT.

Buckeye Senior Lawn Mowers,
10, 12, 14, 16 and 18-inch Cut.
Buckeye Junior Lawn Mowers,
10, 12, 14 and 16-inch Cut.
Send for Circulars and prices.
P. P. MAST & CO.,
31 Market St., S. F.

FRUIT MARKETING.

The Cost of Distribution, Etc.

EDITORS PRESS:—I have read with interest in a recent issue of your good paper an article by Mr. Block which gives his estimate of the net returns to the shippers of green fruits to Chicago. A good deal more could be said which he did not allude to. For instance, the railroads during the same period, notwithstanding the amount paid to them for freights, especially the A. & S. F. road, made enormous losses, borrowed \$7,000,000, lost in depreciated value to the stockholders some \$40,000,000, and dividends, which has to be borne by hundreds of Eastern investors who contributed to make it possible for fruits, passengers or supplies to be transported to or from California.

Mr. Block does not try to ascertain whether the commissions paid compensated the merchants who provided capital and time to dispose of the goods, nor whether it actually paid the cartman to cart them, or the dealers any profit. Possibly each of these could show undesirable returns. On the other hand, his own figures show about 1 1/2 cents per pound net return to the growers, or, say \$30 per ton, and even half of that on the average, as set forth by the "Prospectuses" of dealers in land in California for raising fruit, will make men rich, even though so much is otherwise expended in marketing the fruit.

Such articles published and such conclusions drawn as set forth in your columns are read and interpreted quite differently when read by the public elsewhere than locally. They begin to figure whether after all the raising of fruit promises any inducement to investors, and so one and another either abandons anticipated purchases of our lands, or hesitates and forces holders into greatly reduced prices.

I often am surprised at the various statements which emanate from the papers of this State, and imagine their effect when read in the East in the light of comparison, and by the remaining facts which can be added from observations outside of the locality where the articles are written and printed.

No; there is, and ever must be, the necessity of all contributing, each his skill and labor for a fair equivalent, and if any one is left out, all would suffer and none more than the producer.

Without a railroad the producer would fail to get his products to any market. When there it pays him better to employ a merchant to sell than to do it himself, and the cartman who makes a business of carting can carry his products from one to another far cheaper than if the producer himself undertook every department of the business.

The fact that so many great growers are constantly described as making and accumulating money ought to testify that the growers could show the most for their results. No doubt many of these statements are colored to suit the occasion for which they are quoted, but they are received as inducements for others to follow, and so they do.

If the railroad should stop for a day, or be uncertain of going at all regularly, what a distress would be seen. "Live and let live" is the best and wisest course to pursue. Mr. Block no doubt has done well. Let the union, the officers it pays, the printers it employs, the laborers, box-makers, packers, transporters and even the Chicago commission merchants and cartmen live, and we shall be all happy.

Which one could be dispensed with? Any one would be missed. Each one has a part and a duty to perform, which if duly performed merits fair compensation.

El Cajon, Cal.

HARRY E. FURBER.

It Pays to Pack Well.

H. A. Lound, who left Vacaville about the middle of November, has returned after an extensive trip through the Eastern States. Mr. Lound, in speaking of the mild winter in that section, said it prevented better prices being obtained for dried fruits, as good apples could be bought for \$1 per barrel. "I sent my fruit to Loomis & Co., 95 Barclay street, New York, and when I got there I had the first opportunity to compare my packing with those of others. I took good care of my stock, and paid attention to the way in which it was packed, and the result was better than I expected. For 2200 pounds of unpeeled Morris Whites, I got 13 cents per pound the day that they arrived, and for other portions of my shipment the prices ran as follows: Peeled peaches, 18c; unpeeled Clingstone peaches, 11c; apricots, 16c, and nectarines 12c. Some people are of the opinion that no matter how they ship their fruit, it is good enough for the Yankees to eat, but the best prices are obtained for the best packed fruit."

Another Case in Point.

Wm. Washburn, employed on the Webster place in the valley, was packing some unpeeled peaches some time ago. He thought it would be an excellent idea to keep track of one box, and accordingly wrote upon a slip of paper, asking the person who opened the box to let him know what price he had paid for it. He had forgotten all about the matter until the past week, when he received a letter postmarked, "Milton, Pa." The writer stated he was glad to comply with Washburn's request and acknowledged the fruit was the finest he

ever saw, and had cost him thirty cents per pound. Mr. Webster had sold the fruit for eight cents. This shows what the East thinks of the California fruits.—*Vaca Valley Enterprise.*

Shorthorn Sales.

As will be seen by advertisements in our columns, there are to be two quite important sales of Shorthorn cattle in San Mateo county next week, viz., that of the herd belonging to W. H. Howard, Esq., of San Mateo, which will be sold on the 29th of March, being the day after the sale of Mr. Robt. Ashburner's cattle, which will be sold at Baden Farm on Thursday, March 28th. We have not received as yet Mr. Howard's sale catalogue, but that of Mr. Ashburner's herd only, which contains the pedigrees of 23 females and 12 bulls and bull calves, all of the very best milking strains or families obtainable. Not only that, but they are of families that have always been used as dairy cattle both before and since they have been in the hands of the present owner. All in the catalogue, upon examination of the pedigrees, will be found to trace back through long lines of good blood to the very beginning of Shorthorn genealogy, including such bulls as G. Coates' Patriot (486), Mr. Champion's Blythe Comet (85), C. Colling's Favourite (252), Hubback (319) and Studley Bull (626), the latter being calved in the year 1737 and the oldest, or first-born, Shorthorn on record.

Mr. Ashburner is one of the few breeders in this State who has stuck to the Shorthorn breed of cattle, and, so far as we know, without ever expressing a desire for changing to any other breed. Brought up from his infancy among Shorthorns, under the teaching of his late father, who was one of the first breeders in the north of England, no one will be likely to blame him for not being led away by the excitement there has occasionally been on this coast about other and less tried breeds. Mr. Ashburner has never kept his cattle in any fancy way, but has always aimed at breeding useful animals.

The following extract from the introduction to the catalogue will give an idea of his way of keeping:

The cattle have always been kept in a plain way and used altogether for breeding purposes and in the dairy. All the cows are milked, and all the calves fed from the pail, each one separate. The bull calves are well, but not extravagantly, fed, always running out when there is pasture for them.

There has never been a beast of any age or sex in the herd fed up for exhibition. Whenever I have exhibited at the fairs (having done so only a few times), the cattle have gone just in the condition they are regularly kept in—that is, about as good breeding stock ought to be kept. They grow and carry their own blankets in the shape of good heavy coats of hair, which is quite necessary in the exposed situation in which they are kept, on the coast hills, exposed to the cold summer winds and fogs of the Pacific ocean, which, owing to sudden changes of temperature, many and often, is one of the most trying of climates. With the exception of the bulls and the youngest of the calves, all the cattle are kept out of doors night and day throughout the year. The cows in milk are kept in when the nights are very wet and stormy, which is seldom more than five or six nights in a year. In the past winter they have not been kept in one night.

The young bulls to be sold will be found worthy the attention of both stock-raisers and dairymen. They are a short-legged, well-fleshed lot, and, being descended from milking families on both sire and dam's side for several generations, they are fit to go for either beef or dairy purposes.

Great care has always been taken in the selection of bulls for use in the herd, both as regards breeding and individual merit, particular attention having always been given to perpetuating the milking qualities in the herd by using none but bulls of good milking families.

Veterinary Association.

The quarterly meeting of the California State Veterinary Association was held in this city March 14th. The session was largely attended, and the proceedings were lively and interesting.

Thomas B. Maclay of Petaluma presided, and A. McCullum of Sacramento was secretary.

Several papers were read on the diseases of domestic animals, and subsequently discussed in a general way by the members.

The principal question discussed was the sanitary condition of Butchertown. Most of the members visited the locality recently, and others were familiar with its peculiarities. The general opinion was that the condition of the place was bad, and that something should be done for its improvement.

An interesting feature of the meeting was the president's inaugural address, in which he reviewed the progress of veterinary science, and made many suggestions that were heartily commended.

He insisted that the veterinary surgeon is the mental peer of the medical doctor, and rebuked the State Senator who recently declared that "all veterinary surgeons were nothing more nor less than veterinary cranks, and that a veterinary surgeon was nothing but a man who had not the ability to become a medical man."

In concluding, the president reminded his hearers that it was their duty to make the most of every opportunity afforded them for studying the natural causes and effects of diseases. All diseases, he thought, are due to the presence of poisonous organisms or bacilli in the system. When the nature of these parasites is known the difficulty of diagnosing a disease will have largely disappeared.

THE LOST ATLANTIS.

For many centuries there has been a tradition of a long-lost island called Atlantis.

The Greek geographers located it in the Atlantic Ocean, west of the northwest part of Africa and the Pillars of Hercules. The sea-kings of Atlantis are said to have invaded Europe and Africa, and to have been defeated by the Athenians.

All the legends agree that it was a vast island, of inexhaustible resources, and inhabited by a race of superior people. For ages this island has existed only in legendary lore. But now, when the light of modern research is turned full upon the investigation, behold the lost Atlantis at our very doors.

So the bigoted medical fraternity goes groping about in the dark, seeking for an Atlantis or Esculapius, when if they would investigate, they would behold the lost Atlantis at their very door. With their ancient text-book, a case of physic, a paper in their waistcoat giving them license to practice, experiment and dose with their injurious drugs, cauterize and perform unnecessary acts, with no person or laws to hold them accountable, they continue their bigoted, unjustified practice, staring into vacancy, and imagining that they see in themselves an Esculapius.

Wrapped in ancient bigotry, they are crying out against all improvements that have been made in medical science. They denounce any new idea advanced by a layman or an opposition school as a fraud.

Why? Because humanity will not be benefited? Not at all, but because their specialism did not make the discovery.

Yet they concede that there is no remedy known to their materia medica that will cure an advanced kidney malady and the diseases arising therefrom—although many of them know from crowning proof that Warner's Safe Cure will—but unscrupulously treat symptoms and call them a disease, when in reality they know they are but symptoms.

A few of the more honest physicians admit that Warner's Safe Cure is a valuable remedy and a great blessing to mankind, but say, in so many words, when asked why they do not prescribe it, that they cannot according to their code.

Nevertheless, the world is fast becoming satisfied that the cure for kidney and liver diseases, in whatever form or condition, has been discovered, and there is no doubt but what Warner's Safe Cure and its fame will live long after such bigotry as we have instanced is dead and buried.

The late eminent physician and writer, Dr. J. G. Holland, published in "Scribner's Monthly," and showed his opinion of such bigotry, and no doubt was satisfied that Atlantis might possibly be discovered in a proprietary medicine, when he wrote editorially, as follows:

"Nevertheless, it is a fact that many of the best proprietary medicines of the day were more successful than many of the physicians, and most of them, it should be remembered, were first discovered or used in actual medical practice. When, however, any shrewd person, knowing their virtue, and foreseeing their popularity, secures and advertises them, then, in the opinion of the bigoted, all virtue went out of them."

Situation Wanted.

A gentleman who has had experience in journalism, and is a competent writer and clerk, desires a situation as such in a business house or other establishment. Will do such work at very moderate compensation, providing the same can be transacted during hours of the day, as he is always engaged during evening hours in writing letters of correspondence, etc. Best of references furnished. Please address (stating where an interview can be had), DU R., 1033 Mission St., S. F.

TAKING BY STORM!

Don't pass this by without reading it! It may do you some good. These are facts. The HAVANA PRESS DRILL will assure you an excellent crop, whether it rains or not.

BIANCO, CAL., Mar. 10, 1889.

Messrs. Truman, Hooker & Co., San Francisco, Cal.—GENTLEMEN: The Havanas are taking the farmers by storm; it will be only a matter of time when they will be the only Drill in use in this valley, as I think we have a fair start with the Drills which I introduced in my territory, and they are the only Drills of any kind that were put in the field this year in this vicinity. I am positive that there will be a big demand for them next year, as the farmers who have seen it work, claim it to be the best Drill in the market. Will send you more testimonials shortly. Yours very truly,

C. J. FANEUF.

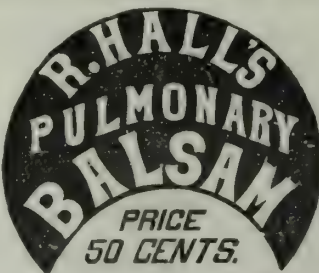
HAVANA PRESS DRILL.

WALNUT CREEK, CAL., July 13, 1888.

Messrs. Truman, Hooker & Co., San Francisco, Cal.—GENTLEMEN: I borrowed an Havana Press Drill from Mr. Jordan and drilled in 200 acres, last April and May, after all other parties were through sowing, and my neighbors said it was too late. I have had a better crop of Barley than those who sowed broadcast in January and February. Had I sown broadcast, I would have got no crop, but the Havana Press Drill put the grain down to moisture, and I think it is the very best way to put in grain. Yours very truly,

B. R. PALMER.

Address, TRUMAN, HOOKER & CO., 421 to 427 Market St., S. F.



For Coughs, Colds, Croup, Asthma, Bronchitis, Influenza, Loss of Voice, Incipient Consumption, and all Throat and Lung Troubles. J. R. GATES & CO., Proprietors 417 Sansome St., San Francisco.

Sewing Machines.

THREE WONDERFUL SEWING MACHINES.



THE NEW SINGER AUTOMATIC

(Single Thread).

"It runs with a breath."

THE NEW SINGER VIBRATOR.

More modern, lighter running, and simpler than any other.

THE NEW SINGER OSCILLATOR.

Scientifically and mechanically perfect.

Offices Everywhere.

Perfection Guaranteed.

The Singer Manufacturing Co.,

22 POST STREET, SAN FRANCISCO

(Makers of 8 Million Machines).

Happy Families are Happy Because

—THEY USE—

THE NEW HOME SEWING MACHINE.

One Million Sold. Second Million rapidly selling. All Beauties. Get one before you spend all your money foolishly. HEADQUARTERS:

725 Market Street, San Francisco.



WHITE IS KING

OF ALL

Sewing Machines.

Simple in Construction, Light Running, Most Durable and Complete. Visitors always welcome.

WHITE SEWING MACHINE CO.

108 & 110 POST ST., S. F.

IT STANDS AT THE HEAD!

"DOMESTIC"

DO NOT FAIL TO SEE THE "DOMESTIC"

Before Buying a Sewing Machine.

It is the leader in practical progress. Send for price list J. W. EVANS, 29 Post St., S. F.

SELF-PLAYING ORGAN.

An Automatic Organ Combined with an Ordinary Five-Octave Organ.

NO TEACHER OR PRACTICE NECESSARY. ANYBODY CAN PLAY the latest and most difficult music of every class. Every home should have one. Send for descriptive circulars, prices and terms to

KOHLER & CHASE, 187 & 189 Post St., Dealers in all kinds of Musical Goods.

CHICKERING PIANOS, CONOVER BROS. PIANOS,

F. W. SPENCER & CO.,

SOLE AGENTS,

723 Market Street, History Building,

SAN FRANCISCO, CAL.

Orders for EVERYTHING in the MUSIC LINE promptly attended to.

DECKER BROTHERS' PIANOS.

KOHLER & CHASE, Agents, 137 POST STREET, S. F.

GOOD-BYE, my Lover, Good-BYE, & for other music, 100 pages of vocal solos, 115 partitions in music, and sample cards. All only 50 cents. Capital Card Co., Get names, Ovals.

STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS

THE MILLER LIGHTNING HAY PRESS.

AWARDED
First Premiums at
State Fairs, 1884,
1885, '86, '87 & '88.
AWARDED
Gold and Silver
Medals at Nevada
and California
State Fairs, and
won contest money
of \$50.

Requires but Four Men
and Two Animals to
do Rapid Work.



CAPACITY 30 TONS PER DAY,
PATENTED
May 25, '85.)
For Standard Size Baling Press,

Or seven and a half tons per day for each man
employed, which is more than has been or
can be accomplished by any other Press yet
manufactured. Twenty tons a day with
Tight Baling Press. Can put ten tons in a
car. Satisfaction guaranteed.

Does not require Hay Stacks
built to suit our Press.



WOOL PRESSES
ALSO BUILT
TO ORDER.

HOUSER COMBINED HARVESTER

Received First Premium, State Fair, Sacramento.

No Experiment! No Failures
NINE YEARS IN THE FIELD.

500 IN FIELD USE.



None Ever Returned.

They have a larger sale than all other Harvesters combined. Built for heavy work and
large grain fields with heavy grain. Always victorious in competitive trials.
They have reduced the cost of Harvesting to less than \$1 an acre, and save three bushels an
acre over and above Heading and Threshing. Have our Premium Extra "Star"
Double Shoe Cleaner, the only successful Harvester Cleaner made. Received First
Premium in 1888.

WOODLAND, Sept. 19, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: The 14-foot Houser I bought of you this
season fills the bill right up to the handle. I have cut
1200 acres; have threshed 623 bags of wheat in one day,
averaging 540 bags for six days. The Star Cleaner and
Improved Shoe are perfect, and last, but not least, I
turn a square corner and save all the grain.

J. R. JONES.

YUBA CITY, Sept. 13, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: I have one of your star Cleaner and Im-
proved Shoes on my Houser Combined Harvester, and
can say that the cleaner is far superior to any I have
ever seen in barley, being able to return unthreshed
barley and pieces of heads direct to the cylinder, some-
thing that everybody can appreciate that has run a
Harvester. The Cleaner is of sufficient capacity, I hav-
ing threshed 650 sacks a day. It is well made and very
durable. The new shoe is perfection. I consider the
Houser very strong and durable, and as light draft as
machines of lighter build of same capacity.

A. GRAFFIS.

Biggs, Nov. 25, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: I bought one of your 16-foot Houser
Harvesters this season and cut my crop of 1200 acres
with same without any expense for extras. The Star
Cleaner and Improved Shoe are perfection. Heretofore,
when using another make of Harvester, I had to have all
my grain recleaned at an expense of \$800 or more, but
with my machine it was not necessary, as the grain was
clean enough for seed as it was taken from the spout,
and I only regret that I did not buy one two years ago,
and I would have saved over \$5000. I prefer the Im-
proved Houser to any other make of Combined Ma-
chines, and would recommend it to my friends in need of
a Combined Harvester.

W. S. RIDDLE.

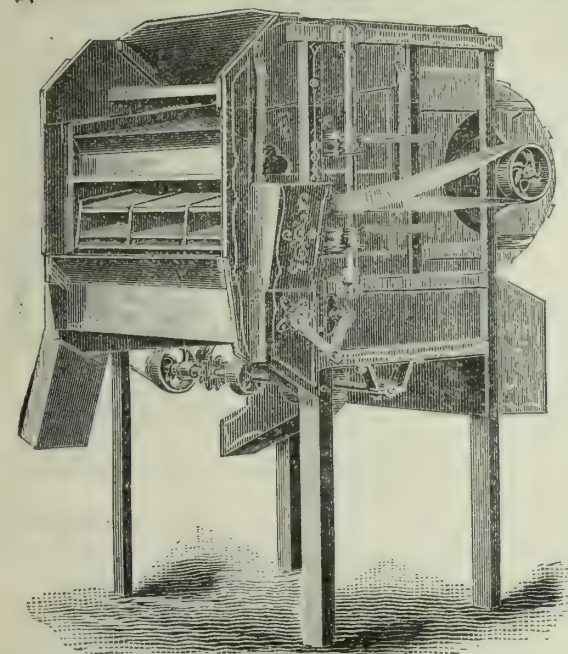
YUBA CITY, Oct. 15, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: The 16-foot Houser Harvester that I
bought of you this season, with the Star Cleaner, gave
entire satisfaction, and, I think, is the best Harvester
in the market. Will recommend it to anybody or friend
that wants to buy a Harvester.

J. W. HUMPHREYS.

Also Manufacturers of "Star" and Angle Sieve Grain Cleaners, Curved Standard
Gang Plows and Plow Extras, Passenger and Freight, Motor,
Cable and Horse Cars.

Office and Works, cor. East & Main Sts., 4 blocks East of S. P. R. R. Depot, STOCKTON.



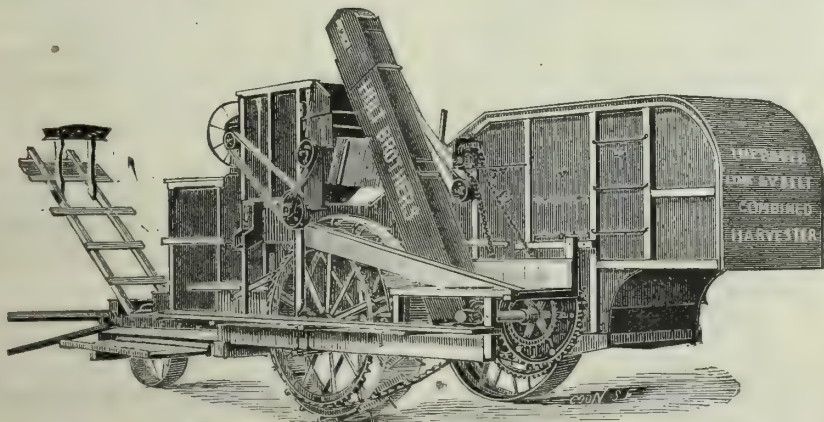
The "STAR" Double Shoe CLEANER

—FOR—
COMBINED HARVESTERS,
Awarded First Premium at State
Fair, Sacramento, Sept. 24, '87.
(PATENT APPLIED FOR.)

The "STAR" Double Shoe CLEANER
—FOR—
STATIONARY THRESHERS

We also build to order the
"Star" Cleaner with sufficient ca-
pacity for any threshing machine.
It is mounted on trucks and can
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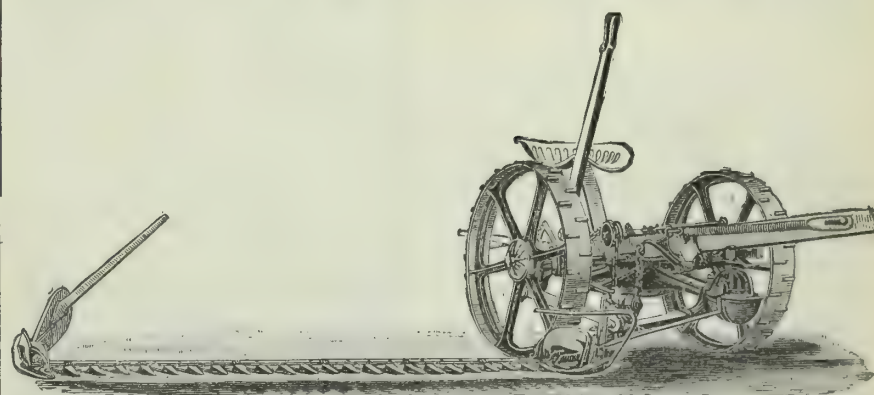


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James G. Clark.

[Original—By M. T. BROOKLEBANK.]

James G. Clark, the subject of the accompanying sketch, was born in Constantia, N. Y., June 28, 1830, and is now in his 59th year. His native village is located on the border of Oneida lake, and it was along the wooded shores of that beautiful sheet of water that the poet-singer's artistic tendency was developed in early life. His parents were intelligent and influential Christians, members of the Episcopal church, and their six children—four sons and two daughters—were confirmed in the same faith.

The subject of this sketch was the third child, and from infancy displayed an unusual gift for music. He says the first song his mother taught him was Henry Kirk White's "Star of Bethlehem," set to the sweet old Scotch air of "Bonny Doon." He committed the words and music to memory, and sitting on his mother's knee, would sing them to the family and to visitors without missing a single note or word when only three years old. His musical and poetical gifts developed as he grew older, and at the age of 21 he had drifted into the concert field, singing first in his native village, then in neighboring towns, gradually extending his field into adjoining counties. He was married about this time to Miss Mary Macfarlane of his native town. Three children were the result of this union, all of whom inherited in a good degree their father's gifts. The two oldest were daughters. The first, Jennie, a lady of rare intelligence, was married some nine years ago to Hon. J. P. Jacobson of St. Paul, Minn., and is now living in their lovely home, the "Wayside," at St. Anthony Park, midway between the twin cities. They have a beautiful boy named Robin, who is the subject of one of his grandfather's sweetest songs, entitled "Sleep, Robin, Sleep." Mr. Clark's second child, Annie, died when only eight years old, and is the subject of his sweet lyric called "Beautiful Annie." The third child, James G. Clark, Jr., is an intelligent and active young man of 22 years, and is connected with the Minneapolis *Daily Star*, being a natural journalist.

Mr. Clark's early poems gave him more than a local reputation at once, and attracted the attention of Ossian E. Dodge, who was then publishing the *Literary Museum* in Boston and had a quartet company called "Ossian's Bards." Mr. Dodge, who was quick to detect and utilize genius and talent, wrote to the poet-singer and appointed him musical composer of the company. It was about this time that Mr. Clark issued his famous quartets, "The Old Mountain Tree," "The Rover's Grave," "The Rock of Liberty," etc. These compositions were not only sung by "Ossian's Bards" with great success throughout New England, but were taken up and sung in the theaters and by college glee clubs, and became immensely popular all over the Union. The more intelligent public seemed to instinctively recognize in them a new departure from the average rhyme and jingle in the field of new and original songs. "The Old Mountain Tree" especially was sung, encored and repeated sometimes three times every night for over three weeks in the Boston Museum, which was then the most popular and fashionable theater in Boston. This quartette is now a favorite in our public schools, although it is some 35 years since it was first issued in sheet form by Oliver Ditson.

Mr. Clark's early lyrics were followed by "The Mountains of Life," which may now be found in nearly every choice collection of poetic gems; "Marion Moore," "The Beautiful Hills," "Where the Roses Never Wither," "The Isles of the By and By," and "Leona," a poem that the *Home Journal* says has been more widely copied, admired and committed to memory than any other of its class ever published in America. His songs were copied by the press all over the land, and read, sung and admired for their refreshing originality of expression, combined with that simplicity and directness which characterize everything Mr. Clark writes. They won high praise from critics like Geo. P. Morris, who, with N. P. Willis, then owned and edited the *Home Journal*, and who in his generation was regarded first among American song-writers.

When the great Civil War broke out, Mr. Clark enlisted in the 35th New York regiment as first lieutenant, and was detailed to stay in the recruiting service, for which he was so well qualified by his natural gifts of voice and manners. He threw himself into the work with such energy—traveling, speaking and singing day and night for the cause, in all kinds of weather, throughout the northern portion of New York State—that he contracted lung fever, from which he was saved only by the skill and care of his old friend Dr. Jas. C. Jackson, the famous health reformer and author, of Dansville, N. Y.,

founder of "Our Home on the Hillside." Dr. Jackson gave it as his opinion that it would be extremely hazardous for Mr. Clark to go into active service in the field, and this opinion being supplemented by the urgent solicitations of friends who felt that the poet-singer could be of far more service to his country in his profession—singing and arousing the patriotism of the people—induced him to give up the idea of camp life and to re-enter the concert field, which he did.

He traveled all over the North, singing his own stirring war lyrics, such as "Fremont's Battle Hymn," "Let me Die with my Face to the foe," "When You and I were Soldier Boys," "Minnie Minton," etc., giving half the proceeds of his concerts to the Sanitary Commissions and Soldiers' Aid Societies, donating in this way many thousands of dollars to the cause of his country.

He also sang for numerous war meetings and aroused more patriotic fervor and enthusiasm among soldiers than any other one singer of his time. His well-known martial lyric "Fremont's Battle Hymn," published

moral, social, religious and political reform, have attracted wide attention for their rare scope and merit. The late Roscoe Conkling used to speak of him as "one of the strongest political writers in America." All of his work, both poetry and prose, in the line of religion and reform relates to underlying principles rather than to dogmas, methods and organization, and this renders it all the more lasting and valuable as help and inspiration for the coming and higher civilization now dawning upon us. His "Evenings of Poetry and Song" are unique and very entertaining and not easily forgotten by those who attend them. He has given several thousand public entertainments, and his personal friends who remember him lovingly, are legion in every State in the Union. Edmund Clarence Stedman writes to him: "I can say of you as I have once said of an English writer—I envy the poet who can go everywhere and hear his own words and music."

Mr. Clark has never indulged in stimulants or narcotics, and his mind and body are still in their prime, though his gray hair and silver



THE POET-SINGER, JAMES G. CLARK.

the first year of the war, rang like a prophecy and trumpet-peal through the land, and was more widely copied by the press and recited at mass-meetings than any other poem of the war, with the possible exception of Julia Ward Howe's "Battle Hymn of the Republic," written two years later. His "Minnie Minton," written later on, was unequaled by any other song of its class for pathos, melody and poetic beauty. He also composed for "Miles O'Reilly's" famous camp song, "We've Drank from the Same Canteen," its only lasting melody.

Mr. Clark has frequently been called the "Tom Moore" of America, combining as he does in the highest degree the triple gifts of poet, composer and singer—a combination in which he probably has no rival living at the present day. His later poems, such as the "Mount of the Holy Cross," "The Voice of the People," "Innovation," "A Vision of the Old and New," the "Infinite Mother," which E. C. Stedman so highly eulogizes, display a wider, deeper and higher range of thought, feeling, philosophy and poetic power of expression than his earlier efforts, and entitle him to a permanent place among the world's great poets.

But it is not alone in the field of poetry and song that our singer is at home. Some of his prose articles and essays, touching

beard make him appear at first sight older than he really is. He stands five feet ten inches, is straight as an arrow, and he verges completely in form and features upon the manly and commanding. His voice in song is very sympathetic, full of goodness and soul and awakens to the deepest sense of what is said and sung. His interpretation of ballads, and especially sacred songs, is that of a master and seems to impart to an audience the fullest satisfaction.

His very latest lyric, "Star of My Soul," which is yet unpublished, is one of the rarest gems. The words and music march and talk together in tender and loving pathos. The following sublime production—the last in his volume of "Poetry and Song," lately issued by D. Lothrop & Co. of Boston, has not been surpassed by any writer of the present age. It is not only abreast of, but it leads a department of thought that many scientific and religious persons entertain relative to what they term the "Motherhood and Fatherhood of God," and like all other questions within the realm of life, it belongs to the true poet to see and to formulate; hence it is that the learned Lord Brougham said that the "world should sit at the feet of poets and learn," for they are the creators of thought. This poem, the "Infinite Mother," is simply a Hymn of Life of larger

expression and deeper spiritual faith in the divine parentage and Godhead of the universe than was entertained at that era in our literature when Bryant wrote his "Hymn of Death"—Thanatopsis.

Mr. Clark is a resident of Minneapolis, Minn., and is one of the staff of the *Speculator*, a large illustrated weekly journal. He has spent a summer in California and contemplates making our State his home, and may locate in or near this city.

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FOR WEEK ENDING MARCH 5, 1889.

398,936.—GRINDING PAN—M. P. Boss, S. F.

398,937.—ROTARY HARROW—A. C. Brown, Eugene City, Ogn.

398,942.—SAWMILL SET WORKS—F. W. Cook, S. F.

398,967.—MAIL-BAG FASTENING—Jos. Jacobs, S. F.

399,065.—COIN ADJUSTER—Geo. McLoughlin, Carson, Nev.

399,209.—ELECTRIC AMALGAMATOR—J. H. Rae, S. F.

398,989.—WRENCH—J. Tomlinson, Folsom, Cal.

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Owing to some breeders having a preference for this family, Mr. Smith has recently decided to breed them also, and has imported from Illinois, Iowa and Michigan some of the finest specimens to be had; they have been selected with the greatest care by an experienced breeder, and from what the writer has seen on his farm, it is predicted that he will soon have as good a reputation for Poland Chinas as he now has for Berkshires. Mr. Smith's motto is to lead and to be fully up to the times. He purposes breeding the two families and to have the best of both, to supply breeders at reasonable prices and to give every purchaser good value for his money invested. All his Poland Chinas are recorded.

Shropshire Down Sheep.

Mr. Smith has also a fine flock, which he imported direct from England, and will this season have a few ram lambs for sale.

Breeders requiring pigs or sheep will consult their own interest by inspecting these herds before purchasing. The stock can be seen at the farm, where breeders can judge for themselves, and where further information will be cheerfully given.

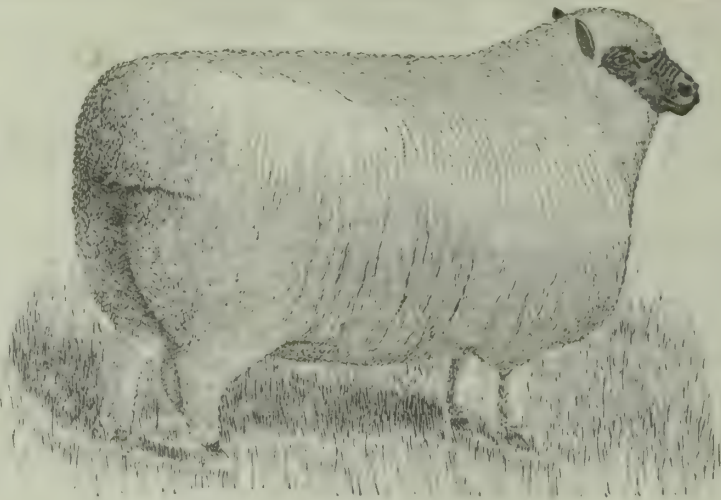
Hale Bros. & Co.

One of the most imposing and attractive commercial houses in Sacramento is shown in the accompanying cut. It is situated on the corner of Ninth and K streets, and occupies one-half a block. The whole lower story and basement is used by this enterprising firm in a general variety of dry goods and notions equal in extent to any store outside of San Francisco in this State.

This firm was established at Sacramento in 1880, in a small store on the opposite side of the street, in a building 20x60 feet. The present store has a frontage of 80x100 feet in depth. Their business is carried on by distinct departments, each devoted to one special line, and is essentially metropolitan and all-embracing. A semi-annual catalogue gives the description and price of every article. By this means what is termed the Mail Order Department has been created, and it has had a remarkable growth, extending to every State and Territory west of the Rocky mountains. The phenomenal success of this house has been attained by buying largely for several stores with which the firm is connected, at San Jose, San Diego, Los Angeles, Stockton, Salinas City, Petaluma and Sacramento. One price, cash, keeping abreast of the times in style, and small but quick profits, has been their policy and rule of action. The several members of the different firms are young, active, industrious, level-headed men, and their name, socially and in commercial circles, is rated very high.

Sacramento Business College.

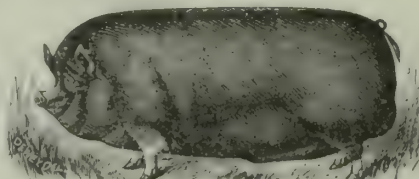
The whole of the upper story is occupied by the Sacramento Business College. Mr. E. C. Atkinson, principal and proprietor, has been a public educator for 30 years, and during the years in California, over 2000 students, young men and women, have been educated for business. The comprehensive and thorough system adopted by him has given his graduates a name and fame that has been a passport for them among the leading business houses for responsible and lucrative employment.



ROYAL DUKE OF CALIFORNIA.



SAN CARLOS.



REDWOOD DUKE.

THE Oregonian says: The immigration board is having prepared a map with the location of lands yet open for pre-emption marked upon it. The following is the number of acres of Government land that yet remains unclaimed in each county: Benton, 68,000; Clackamas, 143,000;

Clatsop, 252,000; Columbia, 107,000; Coos, 325,000; Curry, 175,000; Douglass, 300,000; Linn, 448,000; Marion, 220,000; Multnomah, 28,000; Polk, 54,000; Tillamook, 663,000; Washington, 49,000; Yamhill, 53,000; making a total of 3,461,800 acres.

FISHING BY ELECTRICITY.—The idea of utilizing electric lights in fishing has now got beyond the experimental stage, not only in Europe, but in our own country, for we read that there are fishermen on the coast of Maine who are now fishing by electric lights. This is not a new departure, said a fisherman recently, but new ways of utilizing the lights have been discovered. The old way was to plunge an incandescent lamp into the water, the connection being made with some source of electricity on board the fishing vessel. When this was used in deep-sea fishing, it was found that the mains to the lamp often got foul of the fishing tackle or the cable of the vessel, thereby destroying its usefulness. A Frenchman has surmounted the difficulty by adopting a lamp worked by a primary battery, the whole of which can be thrown overboard and regained when the trip is ended. The battery consists of six Bunsen cells, in which, however, chromic acid is placed instead of nitric acid, formerly used. The cells are connected with a 12-volt Edison lamp. The success of the recent experiments presages the general adoption, by our coast fishermen, of this new discovery.

MEXICO will, the Mexican Financier holds, profit much by the construction of the Nicaragua ship canal, as it will enable vessels to sail all the way from Matamoras to Guaymas. While the canal can be used for purposes of naval defense, our contemporary does not think that this should alarm Mexico, "for the dangers of armed conflict with her northern neighbors grow less and less every day." The Nicaragua route is praised as being cheaper and healthier than the Panama. Good winds can at all seasons of the year be relied on by vessels bound for Brito, at the Pacific terminus of the Panama route, while owing to the calms, there are many months during which Panama can only be reached by steamers.

THE Grass Valley Tidings acknowledges the receipt of maple sugar made from trees in Woodpecker Ravine, east of the town.



HALE BROS.' BLOCK, SACRAMENTO, CAL.

ENTOMOLOGICAL.

Buds, Bugs, Beets and Bark.

EDITORS PRESS:—I perceive that some journals of general publication are paying considerable attention to the matter of insects which are injurious to fruits and fruit trees; and these papers have regular editors or occasional writers who give direct and positive advice to orchard people and other fruit people.

This matter of positive advice is dangerous unless the writer thereof knows positively, by experience several times repeated, that the thing which he, or she, orders to be done will work no injury in ordinary hands.

Here is an instance in point. Some years ago in Santa Clara county, Cal., at a box factory, a gentleman related in my presence how his neighbor had destroyed all the scalebugs in a large peach orchard by the use of a wash of kerosene lamp oil. I asked if the wash had killed all the scale with one washing, etc., to all of which he answered affirmatively that the scalebugs in that orchard were no more.

MORAL.—The next year the large peach orchard was so kerosene-sick that the proprietor grubbed it up.

This year another man told me that with a wash of Paris green and water, applied to his trees three times in one season, he had saved half his apple crop of 1888, near Los Gatos. To which I responded: "That's good." "Yes," says he. But I was talking to one of my neighbors not long ago and he told me he, also, had saved about half his apple crop, or maybe a little more than half, in 1888; and I (said my informant) asked him what he used on his trees and he said: "Nothing whatever."

My informant further remarked that he was getting to be encouraged with the idea that he had found the boss wash; but he did not now know whether it was the wash or other insects, or the season, or what it really was that improved his crop.

And that is about the way I have found it with washes. Sometimes I think they do great good, and then, again, I do not know. I never had but two kinds of scalebugs in my orchard—the common native willow, or convexus, scale and the oyster-shell, or *conchiformis*, scale. For these I tried various washes on the trees—sometimes different washes on different parts of the same tree—but I could not see that lye, potash, whale-oil soap or sulphur, or all three of these combined, put me much ahead. I sprayed part of a row of trees of the Gravenstein variety of apple—they being very perfect trees about 15 years of age—and polished off the tree trunks until they were very smooth and beautiful and as clean as possible. The next year by autumn-time these trees were covered with oyster-shell scale to that extent that the bark seemed to be one mass of scales. That happened about eight years ago. Along about that period—or some time previously—I began to study "bugs" more closely than I had previously done. My study led me to notice the *coccinella*, or ladybug, families, and found out that they were vigorous enemies to plant lice in general and the apple-tree louse—woolly aphid—among the rest. The red ladybug with black spots is an aphid-eater, but not very heavy on scalebugs; but there is a perfectly shiny jet-black ladybug, with two red spots, which lives and thrives on scalebugs.

Now several kinds of birds are heavy eaters of ladybugs and other beetles, so I went to cultivating and protecting ladybugs, and got along tolerably well at that, and now scalebugs are not numerous on my trees.

Somebody may ask, "How do you cultivate ladybugs?" Shoot or poison all the birds you find eating such bugs in the orchard; also plant rows of field beets in the orchard for nests and breeding-places for the bugs. Go into the beet-fields and carry the ladybugs, as you find them there on the beet plants, into your orchard and locate them on your orchard beets. I have never seen a ladybug eating beets, or beet-tops, but I have counted as many as 30 of such bugs on one beet plant, particularly upon the yellow ball mangel-wurzel. The leaf-stems of the beet fit together in a way that gives hiding-place for the bugs as against the birds. There are other plants upon which ladybugs can be colonized, but I prefer field beets. I wish that some man or woman—perhaps it better be a woman, a young woman, and it will do her beauty no harm—who is a good bird-shooter, which I am not, would shoot several specimens of all orchard birds, at different seasons of the year, and, cutting the birds open, examine their craws and stomachs to find what, if any, kind of insects they eat, and keep a carefully written account of the facts for publication in the Rural Press and other journals. After that I would urge that every bird in which shall be found the remains of the red or black ladybug shall be kept out of the orchard, by sudden death or otherwise—if there is any other wise—because it is my opinion, gently expressed, that a ladybug is of more use in an orchard than any bird which eats ladybugs; but even here again it may be well to be careful, because if a bird, such as the wren and woodpeckers, destroy noxious insects more than they do useful insects, it may be well to go slow. Some birds, such as swallows and house-martens, do not digest the external wings—the shell wings—of the beetles, and in the manure of these birds

near the roosting-places, may be found the wings of many kinds of beetles.

I encourage and protect a large colony of mud-housing swallows, who build their mud huts under the upper platform of the windmill tower on my place, and, although they feed exclusively upon winged insects, I have not found the wings of the red ladybug in their deposits, although there were the wings of beetles of various kinds. I do not think the black, two-spot ladybug goes enough on the wing to be often caught by flying birds. In fact I have watched the two-spot bugs on a tree for a week at a time, from day to day, and never saw one move an inch while I was looking at it. But it moved all the same, and mowed a swath of scalebugs as it went. How do I know that I had watched the same bugs from day to day? A small speck of white lead on the bug's back settles that question.

I have read and listened to much advice urging that the old curled bark must be carefully scraped off the fruit trees to prevent the housing of insects, and, in pursuance of that advice, I have looked under the old bark as many as a thousand times. What did I find under there? I found mostly those insects which feed upon other insects—under the bark hiding from birds—though I at times found there some scalebugs, yet very seldom the cocoon of a moth of any kind. The latter was most particularly the case where the woodpeckers were numerous.

Even on this 17th of March, the same being Sunday, and also Saint Patrick's day in the morning—better day better deed—I, with two assistants, inspected the bark of about 100 old apple trees, and we jointly found eight codlin moth cocoons, and each of them was not so much under the elevated bark as in cracks alongside, or among the curled pieces of dry bark. I make no strong objection to knocking off the old bark, but consider that it is not a matter near so important as some, even many, people say that it is.

J. W. GALLY.

Watsonville, March 17, 1889.

QUERIES AND REPLIES.

Pomegranate Better Than Cactus.

EDITORS PRESS:—In regard to the cactus hedge I would say: I have had 15 years' experience with the large, flat-leaved, sweet-fruited cactus, and as a hedge plant it is a failure. It grows from 10 to 12 feet high. Every few years the frost makes it shed its leaves and they all take root and grow. The only way to destroy them is to burn them. Last winter killed all the old trunks, but the leaves on the ground are growing vigorously. In Australia the birds eat the fruit and scatter the seed all over the bush. It is a great nuisance in the Hunter river country, and they are paying \$15 per acre to have it grubbed out and burned. For California use, the fruiting pomegranate is the best hedge plant I know of. It will make a chicken and hare tight fence and requires very little attention. It is very easy to raise from cuttings.—ISAAC LEA, Florin, Sacramento Co., March 3d.

Mr. Schaeffle's Squirrel Poison.

EDITORS PRESS:—In your issue of March 2d, current, the above-named gentleman gave an excellent recipe for a squirrel poison; yet changing of one item would improve it by making it more attractive to the "varmints." In place of oil of peppermint, I would put oil of rhodium. Old trappers and hunters of deer say that if the hunter rubs himself well with oil of rhodium, the deer will almost walk up to him, so much do they like the smell of this oil. I have sold hunters this oil for trapping deer and coyotes. Hence it is reasonable to believe that there is some element of fact in their statements, but I am not aware that any animal is particularly fond of peppermint.—G. F. G. M., Olema, Cal.

Caution to the Unwary.

EDITORS PRESS:—I wish hereby to put the public and the farming community on their guard against a swindler. He worked my neighborhood last week and got the best of a good many. He is a German; claims to be from Hanover, about 32 years old, a very fluent talker, has a boy of about 19 years with him. He wears a Masonic badge and drives a pair of lean horses to a sort of a covered wagon—resembles a butcher-wagon. His first move is to tell you that he is selling bankrupt goods; then he tells you that he sells calico at 1 1/2 cents per yard, gingham 2 cents, table linen 25 cents apiece, fancy tablecloths 50 cents, etc. That part is all right, but look out when he comes with the cloth. There is where the swindle lies. On that part I pronounce him a liar, a swindler, and a thief. GUSTAV BROWN.

Hollister, San Benito Co., Cal.

How IT WORKS.—If we were to put a two-line local in the most obscure corner of the paper, which stated that a certain business man charged more for his goods or kept an inferior quality than his competitors, that man would employ a bull-headed slugger to come around and kill us the next morning. But if we were to ask that same man for an advertisement of his wares, he would say: "No; I don't believe in advertising; no one reads the papers."—Exchange.

HORTICULTURE.

California State Horticultural Society.

Important Discussion Announced.

A few days ago we were called upon by Mr. A. L. Bancroft, a member of our society, who submitted a well-matured plan for grading, packing and marketing of fruit, particularly of dried fruit. We consider this plan much the best of any which has so far been presented, and one which we believe would place the marketing of California dried fruit on a satisfactory and progressive basis.

If no time is lost, much can be accomplished the coming season. After submitting the matter to the Board of Directors it has been decided to postpone for one month the subject selected for the meeting of March 29, 1889, and consider Mr. Bancroft's plan for

Grading, Packing and Marketing Dried Fruits.

This question should be considered, discussed and acted upon at once if anything is to be effected during the year 1889.

We believe it would be greatly to the advantage of the dried-fruit interest if every person engaged in the growing, packing, or marketing of fruit, whether members of the society or not, would meet and act upon this matter now, and we trust that every member will be present, and we invite all interested who are not members to meet with us and take part in the discussion.

The meeting will be held on Friday, March 29th, at 1 o'clock P. M., at the offices of the State Board of Horticulture, 220 Sutter street, San Francisco.

E. W. HILGARD, President.

E. J. WICKSON, Secretary.

Information Wanted About Fruit-Houses.

EDITORS PRESS:—Through the medium of the Press many mutually useful hints are given by readers in reference to experience in care of trees, fruit, etc. Inasmuch as the question of putting fruit in market in good shape involves (in the late varieties of apples and pears) careful handling and proper storage, so as to keep the plump, full and fresh appearance up to date of delivery, this question, how to build a proper house for late fruit, is one that will interest many; the best way to put up the fruit—in bins or on trays—to pack in straw, bran or sawdust, and in fact dozens of plans followed by so many different people. Should the house be in a shady place off the ground, or built on it without floor, aired at top or sides, etc.? I could go on and enumerate again many ways suggested by well-wishers. The views of some good, practical, experienced man would be of great value to many on this subject, and in our county I know would be well appreciated, as we come in with our produce somewhat behind the first, and with late varieties of the harder keeping kinds can hold fruit far into the winter and over until spring.

The subject of cold storage, if it be possible to establish on a basis which would warrant the erection of a plant for a producer of fair amounts of fruit, would be worth inquiring into.

EDWARD N. MOOR.

Lafayette, Contra Costa Co., Cal.

[We shall be very glad to have these subjects discussed and to have drawings and descriptions of any fruit-houses which our readers find satisfactory.—EDS. PRESS.]

Books and Authors.

BY C. L. B.

ESPECIALLY welcomed by lovers of literature and literary workers is the new "Magazine of Poetry," an illustrated quarterly just issued by Chas. W. Moulton of Buffalo, N. Y., who has certainly added a literary gem to our periodical literature.

An entertaining and instructive visitor to the home circle, and one especially interesting to the ladies of the household, is *Peterson's Magazine*, with its opening steel engraving, colored fashion-plate and patterns, work-table designs, household hints, and attractive stories and poems. Where once received, the magazine is sure to be welcome as a regular visitor.

IN "WHAT DREAMS MAY COME," published by Belford, Clarke & Co., Mrs. Atherton has given us an interesting psychological study, touching on the now popular theory of reincarnation in a way that claims attention albeit 'tis not in strict accordance with the real tenets of the belief, since the theosophist does not recognize any remembrance or recognition in the present state of a previous existence as do the hero and heroine in "What Dreams May Come" when he and she discover that they are in reality his grandfather and her grandmother, and expiate their sins. Yet the story is well written; and however the reader may differ from the theories therein advanced, he will recognize the talent of the author.

CLYDESDALES, NORMAN AND ENGLISH SHIRE. No reader of the Rural who cares for noble draft horses will forget the peremptory sale advertised for the 26th inst. by Killip & Co.

The Late Legislature.

We give below a few brief extracts from some of the leading journals of the State regarding—we could scarcely say "respecting"—the Legislature which adjourned *sine die* between 1 and 2 o'clock last Sunday morning:

The *Chronicle* remarks: It stands without a rival for entire disregard of the wants and needs of the people of the State and for criminally reckless extravagance. As to the usual offenses charged against a Legislature, such as the acceptance of bribes, the violation of solemn pledges, and the prostitution of personal honor and integrity, the record stands open, and every citizen of California can draw his own conclusions. * * * Neither party has any reason to be proud of its legislators, taking them as a whole, while, on the other hand, each party was represented by a few men who were an honor to the State and to their constituents. * * *

San Francisco has no reason to be proud of the delegation which misrepresented her in the recent Legislature.... Ignorant, narrow-minded, prejudiced and purchasable are terms that may be applied with strict justice to the great majority of them. * * *

It is not known yet what the net result is, but it is certain that the enormous and extravagant appropriations must increase the rate of the tax levy for the next two years, and that the raid upon the State Treasury has been unexampled and conscienceless.

The special correspondent of the *Bulletin* says:

If the passage of the Election Reform bills, the prison investigation and a few minor appropriations are excepted, the work would better have not been done at all. With 14 purchasable votes in the Senate and 30 in the Assembly the lobby took possession of both branches almost before they were organized. Boss Buckley brought here all the lambs who had been thrown out of employment by his reverses in San Francisco, and foisted them upon the Legislature. Many of them have never appeared since their appointment except to draw their salaries, and the others merely remained here for the purpose of promoting some steal. * * * A greater number of rascals than were elected to this Legislature never assembled under the dome of the Capitol. They passed laws in defiance of the Constitution and spat upon decisions of the Supreme Court with the bravado of the hoodlum.

The Sacramento *Bee* declares that, although it is the custom to speak of each succeeding session as the worst, it is safe to say that the session just closed has displayed more brazen rascality, more shameless disregard of every shred of principle, more outright barter of every remaining fragment of honor, more reckless prostitution of female clerks, more open and notorious adultery on the part of members, than have ever before disgraced a Legislature. The honest members were like angels' visits, few and far between. The virtuous women were so lost sight of in the general licentiousness that even their names became tainted by the breath of slander. * * * The session closed amid orgies that would have put to shame the Bacchanalian feasts of the old Romans, and made even the painted visitors to the Jardin Mabille blush in very shame. * * * But all evil things have an end, and the legislative rascals and breakers of the Seventh Commandment have departed from our midst. Thank God for the relief!

Among those figures which stand out in bright and honorable contrast to the general darkness and disgrace of the picture, none is more striking than that of the Governor. His lively sense of official responsibility, his manly rectitude and sturdy faithfulness to convictions of duty, have been such as to command the respect of honest citizens of all parties, even when they differed with him in judgment, and jobbery has been disgusted at his rugged integrity.

Sierra Valley Cheerful.

EDITORS PRESS:—We have had, and are having, one of the most beneficial storms our mountain country has ever been blessed with. It had been the driest winter, the loveliest winter in the history of this valley, but as the season for storms was fast passing away grave fears were entertained; all business came to a standstill; farmers could not plow; the logging camps were stopped. There was no water to run mills, no water for miners, and the general outlook was very gloomy. But the Allwise Providence cleared away man's doubts and anxiety by sending the much prayed-for and much-needed snow and rain. On the morning of the 12th it commenced raining and snowing alternately, and still continues. There is now a heavy fall of snow in the mountains, and the valley is almost a sea of water, insuring the finest of crops and a successful lumber season, and gladdening the heart of the miner. The gloomy forebodings are things of the past, and instead we meet cheerful, happy faces, cordial greetings and anticipations of a bountiful fruit crop, as the choicest of apples, plums, pears, cherries and berries are prolific here. The dairy interest is increasing every year, both in butter and cheese, and this season promises to be one of the best and most productive.

MRS. E. J. STEPHENS.

Sierra Valley, March 18th.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

HORSES AND CATTLE.

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENMAN & McNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton,) Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HELLBRON BROS., Cruickshank strain of Short-horns & Herefords, Wildflower Farm, Fresno or Sac'to.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAGE & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

GEO. BEMENT & SON, Maple Grove Farm, Oakland P. O., breeders of Ayrshire Cattle & Essex Swine.

F. H. BURKE, 401 Montgomery St., S. F.: Registered Holsteins; winners of more first prizes, sweepstakes and special premiums this year than any herd on the Coast. Pure Berkshire Pigs. Catalogues.

H. P. MOHR, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

H. S. SARGENT, Stockton, importer and breeder of registered Jersey Cattle. Correspondence solicited.

P. PETERSEN, Sites, Colusa Co., importer & breeder of registered Shorthorn Cattle. Young bulls for sale.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

POULTRY.

PIEDMONT POULTRY YARDS, cor. Piedmont Ave. & Booth St., Oakland. Wyandottes, L. Brahmas, P. Rocks, Langshans, B. Leghorns, B. B. R. G. Bantams. Eggs \$2 for 13; circular free; Mrs. J. N. Lund, Box 116.

WHITE & WOOD, Danville, Cal. Pure eggs for hatching; eight varieties; send for circular.

D. H. EVERETT, 1616 Larkin St., S. F., Importer and breeder of Thoroughbred Langshans and Wyandottes.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

R. G. HEAD, Napa, Cal., breeder of the choicest varieties of Poultry. Each variety a specialty. Send for new Catalogue.

T. D. MORRIS, Agua Caliente, Cal.; pure-bred fowls.

GALT POULTRY YARDS, S. W. Palin, prop'r, Galt, Sac'to Co., Cal., importer and breeder of thoroughbred Ply. Rocks, Lt. Brahmas, Langshans, Wyandottes & P. Cochins; eggs, single sitting \$3, 3 sit'gs \$7.

A. C. RUSCHHAUPT (successor to Jas. T. Brown), P. O. Box 43, Station B, Los Angeles, Cal., yard on State St., Brooklyn Heights, importer and breeder of all leading thoroughbred Fowls, and Eggs, at reasonable prices. Circular free.

W. O. DAMON, Napa, \$2 each for choice Lt. Brahmas, Wyandottes, P. Rocks, White and Brown Leghorns. Eggs, \$2 per 13. Beet Seed for sale.

O. J. ALBEE, Lawrence, Cal., breeder and importer.

SHEEP AND GOATS.

J. B. HOYT, Bid's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

J. W. WOOLSEY & SON, Fulton, Cal., importers & breeders Spanish Merino Sheep; ewes & rams for sale.

R. H. CRANE, Petaluma, Cal., breeder and importer. South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine—high graded rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

SWINE.

TYLER BEACH, San Jose, Cal., breeder of thoroughbred Berkshire and Essex Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

JOSEPH MELVIN, Davisville, Cal., Breeder of Poland-China Hogs.

ANDREW SMITH, Redwood City, Cal.; see adv't.

IMPORTANT ANNOUNCEMENT!

PEREMPTORY SALE

—OF—

English Shire, Clydesdale and Norman Stallions,

—AND—

CLYDESDALE MARES,

At 1 P. M., Tuesday, March 26, 1889,

—AT—

BAY DISTRICT TRACK.

By direction of Mr. I. Trestrail we will offer his consignment of THOROUGHbred CLYDESDALE STALLIONS and MARES, comprising eight head. These are the most superior lot of Clydes ever imported to California.


We are also instructed by Mr. Morgan of Cheyenne to dispose of his consignment, consisting of four ENGLISH SHIRE STALLIONS and four NORMAN STALLIONS. These horses have been selected expressly for this market and are in every way desirable animals.

This will form the most extensive sale of stallions that has ever taken place in California.

The horses are now at Bay District Track and may be seen at any time previous to sale.

KILLIP & CO., Auctioneers,

22 Montgomery St., S. F.



Headquarters for all Varieties of FANCY CHICKENS,

DUCKS, TURKEYS, GEESE, PEACOCKS, Etc.

EGGS FOR HATCHING

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SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 2-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with record's better than 2:30, and the dams of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28.

TERMS, \$100 for the season.

CRESO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 405, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Ryadyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Stamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:03, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27) by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

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CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.

Vol. 1, American C. B. S. H.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" class, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire beating 20 others.

First dam Whalebone (355), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 163 hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLÉON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 243; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teedale, and second premium at Bowes, England, in 1886; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

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Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

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CLYDESDALE STALLIONS FOR SALE!



Pure Bred Clydesdale Stallion DUKE,

Foaled May 10, 1883, color bright bay, stands 18 hands 2 inches high; has weighed 2100 pounds.

Sire, imp. Ben Lomond; g sire, imp. Glengarry; g g sire, imp. Roderick Dhu; g g g sire, imp. Red McGregor; g g g g sire, imp. Tam O'Shanter.

Dam, sire, imp. Glancer; g sire, imp. Champion; g g sire, President; g g g sire, imp. Provost.

Won at San Jose, 1884, first premium as best yearling. Won, 1885, first premium as best two-year-old at Sacramento State Fair. Won, 1886, first premium as best three-year-old at Livermore Stallion Show, also sweepstakes over all others of any age or breed; 1887, first premium at State Fair, Sacramento, as best four-year-old; also first premium at Los Angeles; 1888, first premium at State Fair, Sacramento, as best five-year-old.

Pure Bred Clydesdale Stallion PRINCE,

Foaled May 18, 1886; color, dark bay, and an excellent mover; very docile in temper. Free from all natural imperfections.

Full brother to Duke, so pedigree is the same. Won, 1886, first premium at State Fair, Sacramento, as best sucking colt. Won, 1887, first premium at State Fair, Sacramento, as best yearling. Won, 1887, first premium at Stockton and first premium at Los Angeles. Won, 1888, first premium at State Fair, Sacramento.

These animals are the property of James Roberts, Irvington, Alameda Co., and are among the highest type of the Clydesdale horses. They may be seen at Irvington up to February 1st, after that date at Bay District Track, San Francisco.

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Shorthorn Cattle

AT 1 P. M. AT

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Thursday, April 4, 1889.

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Catalogues will be ready shortly. Terms at sale.

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At 1 o'clock P. M.,

25 Head of Shorthorn Heifers and Young Cows, and 10 Bulls,

Six of them old enough for use, among which will be Grand Prince of Baden 2d 59949, he being the last calf from the famous and well-known dairy cow "Yellow Rose." Also

50 Head of High-Grade Heifers,

Some of which have recently had calves.

This will be a good opportunity for any one wanting a "family cow," to secure something good looking, young, quiet and of gentle disposition.

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Of Short Horn Cattle and Dairy Cows.

Catalogues and Prices on application to

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Shorthorn Cattle!

COMPRISING

60 Head of Females and 12 Head of Bulls.

AT

SAN MATEO RANCHO,

Property of W. H. HOWARD, Esq.,

FRIDAY - - MARCH 29, 1889

At 11 A. M.

On the above date we will offer, without reserve, the entire San Mateo Rancho Herd of Registered Shorthorn Cattle, and also 50 head of High-grade Cows and Heifers, selected from the famous milking-herd of the San Mateo Ranch Dairy.

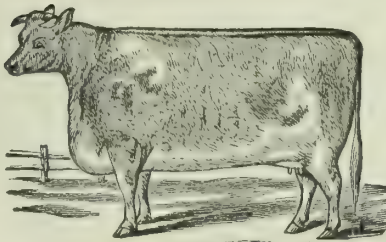
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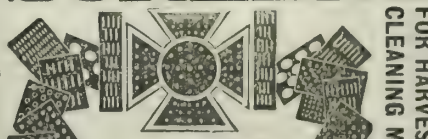
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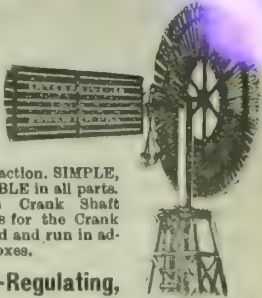
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S. F. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 20, 1889.

Continued rains up to to-day interrupted general trade in farm products, but operators console themselves by claiming that with settled weather and improved roads more life will be thrown into business, which, backed by a feeling of confidence that the future holds out a hope for a very prosperous year, will create as a rule better markets. With clearing skies to-day, bucksters and other buyers of cheap fruit and vegetables were out in force cleaning up the market of all undesirable parcels for carrying in store. The cereal market has exhibited a fair degree of activity in both samples and futures. The wheat market here has held fairly firm in the face of drooping values at the East and abroad. The following is to-day's cable:

LIVERPOOL, March 20.—Wheat—Very flat. California spot lots, 7s 4d to 7s 7d; off coast, 37s; ship, 37s; nearly due, 37s; cargoes off coast, very dull; on passage, very little demand; Mark Lane wheat, weaker; English country markets, very slow and occasionally cheaper; French, steady; wheat and flour in Paris, quiet.

Foreign Grain Review.

LONDON, March 18.—The Mark Lane Express says: English wheat values are lower, and it is impossible to effect sales. Flour is weak, although the supply of foreign is moderate. In London, barley has declined a fraction. In a majority of the country markets, prices have hardened. The large quantity of corn caused a weakness in some cases, while in others prices are in the seller's favor. Oats have improved. At to-day's market English wheat was in moderate request at last Monday's prices. Foreign is weaker. Flour is unchanged. Oats advanced 3d. In the very latest dealings breadstuffs and corn were weaker.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Mar.	Apr.	May.	June.	July.	Aug.
Thursday....	78 3/4d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Friday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Saturday....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Monday.....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d
Tuesday....	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d	78 1/2d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday....	37 1/2d	37 1/2d	37 1/2d	Quiet.
Friday.....	37 1/2d	37 1/2d	37 1/2d	Quiet.
Saturday....	37 1/2d	37 1/2d	37 1/2d	Slow.
Monday.....	37 1/2d	37 1/2d	37 1/2d	Inactive.
Tuesday....	37 1/2d	37 1/2d	37 1/2d	Slow.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	Mar.	Apr.	May.	June.
Thursday.....	92 1/2	92 1/2	92 1/2	92 1/2
Friday.....	92 1/2	92 1/2	92 1/2	92 1/2
Saturday.....	92 1/2	92 1/2	92 1/2	92 1/2
Monday.....	91 1/2	91 1/2	91 1/2	91 1/2
Tuesday.....	90 1/2	90 1/2	90 1/2	90 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	Mar.	Apr.	May.	July.
Thursday.....	95 1/2	95 1/2	95 1/2	95 1/2
Friday.....	95 1/2	95 1/2	95 1/2	95 1/2
Saturday.....	95 1/2	95 1/2	95 1/2	95 1/2
Monday.....	95 1/2	95 1/2	95 1/2	95 1/2
Tuesday.....	95 1/2	95 1/2	95 1/2	95 1/2

NEW YORK, March 20.—Wheat—91 1/2c for cash, 91 1/2c for May, 92 1/2c for June and 91 1/2c for July.

CHICAGO, March 20.—Wheat—94 1/2c for cash, 96 1/2c for May, 92c for June and 85 1/2c for July.

Eastern Wool Market.

NEW YORK, March 15.—Business is quiet in all of the wool markets, with prices in buyers' favor, on the whole 1/2c @ 1c lb lower than last week. Two opposing forces are at work in the market. On the one hand heavy woolen goods are not selling so well as they were expected to, and go at low prices, so that manufacturers are taking supplies only for their immediate wants. Stocks of wool, on the other hand, are very light, and the prospects of obtaining supplies next summer at anything less than values now current are slight. The consequence is that the market continues about steady, though very dull. Here and there dealers are ready to close out at concessions, while others continue to hold with confidence what material they have in store. More or less business in sample bags is reported.

At Philadelphia, wool is moving slowly, but the market is steady; there is more inquiry, but the reselling business is small, because manufacturers' bids are generally a little below the views of holders.

BOSTON, March 15.—The aggregate sales of wool for the week indicate more activity than for a few weeks previous, but the tone of the market, as reported by dealers, shows no improvement, and holders seem more disposed to meet the views of buyers. On finest grades of washed fleeces the market is perhaps as strong as ever, but only small lots of these remain unsold. For all other kinds of domestic dealers are willing to accept any reasonable bid rather than let a good customer go, and the consequence is that concessions in several instances have been made. The season for cleaning up has arrived, and nearly all who have been holding back for full rates are now ready to meet the market. Although several manufacturers have been around, they do not seem to be eager to buy large lots, and claim to have enough wool to cover the bulk of their contracts for the remainder of the season. The transactions have been mainly in pulled, scoured and Territory wools, and include numerous small lots of various grades. Total sales, 2,462,500 lbs.

The Average Condition of Winter Wheat

CHICAGO, March 17.—The Farmer's Review says: March, the interregnum between winter and spring, is probably the most trying month of the year to the winter wheat crop. This year, owing to the lack of

snow in many States, and the remarkably mild open winter experienced thus far, the season is particularly critical. Should a sudden freeze take place, the damage would be very great. As it is, quite a percentage of the crop in several States has been winter-killed. Making all due allowances, however, for these reports, the general average condition for the winter wheat belt as a whole is fair to good, and the prospects for a good crop are by no means discouraging.

Miscellaneous.

NEW YORK, March 16.—Transactions in hops are moderate enough, but doing sufficient to support the full last figures. Dealers say: "Beer weather is coming and the market will keep."

Pacific raisins are going out at \$1.25 @ 2.15; crowns, \$2.20 @ 2.60.

Since the holders of Pacific prunes have dropped prices so as to compete with similar classed French goods, there has been a good inquiry.

For the first time in a long period mustard seed shows animation, and better prices will probably be named next week.

California dry hides are firm at 16; the stock is light and the general market is in good shape; best foreign, 17; Central American, 12 @ 15; lowest grade, 11.

Local Markets.

	WHEAT.	"S. '89.	"S. '88.
Thursday....	142 1/2	144 1/2	135 1/2
Friday.....	141 1/2	144 1/2	135 1/2
Saturday....	141 1/2	144 1/2	135 1/2
Monday.....	141 1/2	144 1/2	135 1/2
Tuesday....	141 1/2	144 1/2	135 1/2

—New. 10d.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday....	79 1/2	79 1/2	80 1/2
Friday.....	79 1/2	79 1/2	80 1/2
Saturday....	79 1/2	79 1/2	80 1/2
Monday.....	79 1/2	79 1/2	80 1/2
Tuesday....	79 1/2	79 1/2	80 1/2

BAGS—Holders influenced by continued favorable crop weather have advanced their asking prices for Calcuttas to 7 1/2c for spot, 7 1/4c for June, and 8c for July. It is claimed that some outside parcels can be secured at a slight shading on the above quotations.

BARLEY—The sample market has been quiet. The low figures to which prices sunk previous to rain, caused only a slight shading under improved crop prospects. Shipments of the better grades are being made to Australia. The supply of choice to extra choice in this State is light. In futures, trading the past week was fair. The fluctuations were slight. The following are the sales reported made at to-day's call:

Morning Session: Buyer 1889—200 tons, 88 1/2c. Buyer season—100 tons, 78 1/2c. Afternoon Session: Buyer 1889—100 tons, 88 1/2c; 400, 88 1/2c; 100, 88 1/2c. Buyer season—100 tons, 78 1/2c; 300, 78 1/2c @ cwt.

BUTTER—Continued heavy receipts and strong selling pressure cause the market to rule in buyers' favor. At the low prices the consumptive demand is increasing. The daily papers note with satisfaction the shipment in last month of over 77,000 lbs. of butter overland. The butter shipped was creamery, sent to Los Angeles and this city last winter, for which there was no market on this coast. No California butter has been shipped overland.

CHEESE—The market still tends in buyers' favor, under free receipts. The demand is increasing.

EGGS—The consumption steadily grows, and as receipts are not so free, the market shows a stronger tone. With better roads, it is claimed that receipts will increase.

FLOUR—The market is steady, with a good home demand and a fair export inquiry.

WHEAT—There has been quite a demand for choice white milling grades of wheat for shipment to Australia. It is said that fully 8000 tons have been placed at prices ranging from \$1.41 @ \$1.46 1/2. The market for sample parcels holds strong for both shipping and milling. In futures, dealing the past week was quite active, with lively and attractive fluctuations noted. The following are the sales reported at to-day's call:

Morning Session: Buyer 1889—300 tons, \$1.41 1/2; 300, \$1.41 1/2; 500, \$1.42. Seller 1889—100 tons, \$1.39 1/2. Seller 1889, new—100 tons, \$1.31 1/2; 100, \$1.32. Buyer season—300 tons, \$1.39 1/2 @ cwt. Afternoon Session: Buyer 1889—600 tons, \$1.41 1/2; 500, \$1.41 1/2; 2000, \$1.41 1/2. Seller 1889, new—600 tons, \$1.31 1/2. Buyer season—300 tons, \$1.39 1/2; 300, \$1.39 1/2; 500, \$1.39; 600, \$1.39 1/2; 100, \$1.39 1/2 @ cwt.

[COMMUNICATED.]

Market Information.

Produce Receipts.

Receipts of produce at this port the past week were as follows:

Flour, qr. sks....	26,524	Bran, sks....	5,241
Wheat, cts....	66,407	Middlings, sks....	1,571
Barley, "....	5,415	Alfalfa, "....	27
Rye, "....	266	Chicory, "....	50
Oats, "....	—	Broomcorn, bds....	58
Corn, "....	—	Hops, bls....	—
Butter, "....	2,295	Wool, "....	653
Cheese, "....	437	Hay, tons....	612
Eggs, doz....	43,590	Straw, "....	8
Beans, cts....	1,055	Wine, gals....	92,730
Potatoes, sks....	6,842	Brandy, "....	17,550
Onions, "....	478		

Cereals.

The London Agricultural Gazette, February 25th, says: Since the commencement of the past week the weather has again assumed a more wintry character; not much rain has fallen, but cold storms of snow and hail have been pretty general and frequent during the last few days, with a searching northeasterly wind. Under these circumstances the land has dried considerably, and some pulse, with an occasional field of oats, has been seeded; but nothing stronger than a light loam is yet in form for barley. The stale furrows will, apparently, work well as soon as they are dry enough, the frost having been sufficiently severe before the snow came to disintegrate them. So far the wheats do not appear

to have taken any damage, and they will not be more forward at the end of the month of February than they were at the beginning—when they were not forward enough to take harm from ordinary cold during February and March. Very much of the native wheat on offer has been threshed some time, having been held against falling markets by dealers, and the condition of the great bulk of it is such as to require constant turning on barn-floor or granary-floor to keep it sweet; in fact, much of it is now in a state which proves to owners the truth of the old adage "first loss the cheapest." If the month of March should be a windy and drying one it is tolerably certain—from present evidences—that grain stacks will open in greatly improved condition. Country flour has been delivered rather freely of late, but values have not been quotably changed; demand during the week has been fairly good, but a reduction in the London "top price" is thought by some to be imminent. The trade for malting barley remains much depressed; the season is getting on, and no fine stuff offering at home or abroad at present. A cold and late spring would, doubtless, carry the maltings on, but the color of the native crop is such as to prevent the manufacture of malt expressly to hold over at present.

The following table of monthly rainfalls at Sacramento, as furnished by the Signal Service, taken in connection with the average wheat yield by seasons, is of particular interest in going to show the probable outcome of the wheat crop this year:

MONTHS.	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
January.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
February.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
March.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
April.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
May.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
June.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
July.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
August.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
September.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
October.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
November.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
December.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total.....	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

*Rainfall up to 5 A. M. on the 19th.

†Total for this season to 5 A. M. on the 19th.

The rains of November and December prepared the lands for plowing for a large spring seeding, which was taken advantage of by farmers in the spring wheat districts, so that the acreage seeded to wheat this season is the largest on record. The winter's returns indicate that the total acreage in wheat is not short of 3,500,000 acres, and may even go above 3,600,000. In 1880, when the crop reached 35,000,000 cents, the total acreage to wheat was only 2,100,000. The outcome this year of necessity depends very much on the character of the weather in April and May.

The local wheat market held to firm prices throughout the past week. Contrary to the usual order of things, the heavy rains did not shade values much, which goes to show that stocks must be well in hand. A leading miller bought some gilt-edged the past week at \$1.45, which he considered to be from 2 1/2c to 3 1/2c under the market. Some quiet buying is reported to have been made by exporters to Australia. The grades wanted were from choice to gilt-edged. The price paid ranged from \$1.45 to \$1.50, although some is said to have been taken in at a lower figure than \$1.45. Shipments for Australia are going forward by steamer and sail. There are three sailing vessels under charter to load. For European shipment, two vessels were taken up the past week. An exporter bought last Monday a round parcel of good to choice shipping at \$1.42 1/2.

Barley has ruled weak, under light trading and reports of good crop prospects. A sample of this year's, in stalk, was exhibited on "Change the past week. The field of grain from which it was taken, it is said, will be ready for harvesting by the middle of April. Some shipments of the more choice grades of bright are being made to Australia.

It is claimed that the high water in the Sacramento and San Joaquin rivers has flooded large tracts of land which gave, for several seasons past, good crops of grain.

Corn has held fairly steady under light receipts and a moderate trade call. The outlook at present is favorable for a large crop in this State.

Oats eased off still more the past week. The shading in prices is said to be due to the light call and free receipts.

In buckwheat and rye there is nothing new to report.

Australian mail advices are confirmatory that California wheat is wanted for mixing with off-colored and damp wheat drawn from the New Zealand surplus. The mail advices also report the flour market depressed.

Fruit.

Eastern apples have a firmer tone for the more choice.

Receipts of oranges continue heavy, yet the market does not show any lower prices, except for poor keepers. Naturally, with free rains, the keeping quality of oranges is poor, which necessitates, at times, concessions in prices to save heavier losses. The consumption is said to be larger than ever. Shipments to the East are increasing.

It is feared in certain quarters that the heavy rains and high winds will lessen the fruit crop, owing to the destroying of the pollen in many of the blossoms. If this shall prove to be the case, what will be lost in quantity will be made up in quality and size.

Heavy imports of Mexican limes have shaded prices for both limes and lemons. Owing to rains and unfavorable weather, the demand is only fair.

The movement heretofore noted in dried fruits is still continued. The supply is said to be quite light, not more than enough to meet the coast trade, provided the latter is up to former spring requirements. The tendency appears to be to stronger prices.

In raisins, there is nothing new to report. Choice to extra choice are in limited supply. The feeling appears to be that values will appreciate before the close of the season.

G. W. Meade has just returned from a business trip to the East. He reports an increasing distribution demand for dried fruits, brought about by the low range of values that obtained in the leading distribution centers in the Eastern and Central States.

Feedstuff.

Ground feed continues slow, with prices favoring buyers. The stock on hand is said to be quite large for the time of the year. This has more particular reference to bran and middlings.

Hay holds fairly steady. This, it is claimed, is due to the storm curtailing farmers' deliveries. The consumption in this and neighboring cities is reported to be quite free.

Live-Stock.

The market continues weak and unsatisfactory for bullocks and mutton sheep. Offerings continue few, with the consumption not quite so large. Calves and lambs are weaker. Milch cows hold firm, notwithstanding the low prices ruling for butter. Hogs are still scarce. The prospect of large cereal crops makes it almost certain that good prices will obtain for stock hogs well into the year. For horses there are no changes to note, the weather being against active trading in them.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent.]:

HOGS—On foot, grain fed, 6 1/2 @ 7c lb.; dressed, 9 1/2 @ 10c lb.; soft, 5 1/2 @ 6 1/2c lb.; dressed, 8 @ 9 1/2c lb. Stock hogs, 4 1/2 @ 5 1/2c lb.

BEEF—Stall fed, 6 1/2 @ 7c lb.; grass fed, extra 6 @ 6 1/2c lb.; first quality, 5 1/2 @ 6c lb.; second quality 4 1/2 @ 5 1/2c lb.; third quality, 3 1/2 @ 4 1/2c lb.; bulls and thin cows, 2 @ 3c.

VEAL—Small, 5 @ 7 1/2c lb.; large, 5 @ 6 1/2c lb. MUTTON—Wethers, 6 @ 6 1/2c lb.; ewes, 5 @ 6c lb.; lamb, spring, 9 @ 12 1/2c lb.

Vegetables.

New potatoes hold to steadier prices. The rains have created a stronger feeling among growers not to dig much for market yet, but let the potatoes attain larger size. The high water in the rivers will, it is thought, cut off a large source of supply for this market. Old potatoes hold to fairly steady prices, with choice, well-conditioned reported having a firm tone.

Choice, well-selected onions hold to stronger prices. Poor are slow and moved with difficulty. The outlook for this year's crop is said to be quite satisfactory, both in this State and Nevada.

Seasonable vegetables are in liberal receipt, with prices showing a slight shading on last week's closing. The consumptive demand is increasing as prices ease off.

This year's cabbage is on the market, but as yet they only meet the local trade.

Miscellaneous.

From the Commercial News of March 19th, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	197,390	251,259
On the way to neighboring ports.....	43,518	120,584
In port, disengaged.....	38,334	44,477
In port, engaged for wheat....	36,032	22,504

Totals.....315,274 438,824

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to March 19th, the following are the exports from this

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.		WEDNESDAY, March 20, 1889.	
BEANS AND PEAS.		Paper shell. 12 @ 13	
Bayo, cti.	230 @ 2 65	Pecans.	8 @ 10
Butter.	250 @ 3 00	Peanuts.	10 @ 17
Pea	1 75 @ 2 00	Peanuts.	4 @ 6
Ped.	2 30 @ 2 40	Pilberts.	10 @ 12
Pink.	2 20 @ 2 35	Hickory.	5 @ 8
Large White . . .	— @ —	POTATOES.	
Small White . . .	1 75 @ 2 00	Early Rose.	30 @ 40
Lima.	4 00 @ 4 60	Chile.	30 @ 45
Fla Peas, bkeye . .	2 00 @ 2 10	Peerless.	35 @ 50
do green.	3 00 @ 4 00	Jersey Blues. . . .	40 @ 60
do Nles.	2 00 @ 2 10	Reds.	25 @ 40
BROOM CORN.		Burbanks.	40 @ 60
South'n @ ton. 70	@ 85 00	Cuffey Cove.	50 @ 70
Northern.	65 @ 75 00	Sweet.	1 00 @ 1 75
CHICORY.		Tomatoes.	30 @ 40
California.	5 @ 6	New, sacks.	1 @ 2
German.	6 1/2 @ 7	do boxes.	1 @ 2 1/2
DAIRY PRODUCE, ETC.		POULTRY AND GAME.	
BUTTER.		Hens, doz.	7 00 @ 9 00
Cal. Com. Fair, lb 10	@ 12 1/2	Roosters, old. . . .	6 00 @ 7 00
do good to choice	12 1/2 @ 16	do young.	8 00 @ 12 00
do Fancy brands	17 @ 18	Broilers.	5 00 @ 9 00
do pickled.	— @ —	Ducks, tame.	9 00 @ 12 00
Eastern in tubs. . .	— @ —	Geese, pair.	2 00 @ 2 75
do in rolls.	— @ —	do Goslings.	2 50 @ 3 25
CHEESE.		Turkey Gobler. . .	15 @ 17 1/2
Cal. new, choice. . .	10 1/2 @ 11	Turkeys, Hens. . .	16 @ 20
do old.	9 @ 11	do dressed.	18 @ 21
do fair to good . . .	9 @ 10 1/2	Rabbits, doz. . . .	1 25 @ 1 75
EGGS.		Hare.	1 75 @ 2 00
Cal. ranch, doz. . .	20 @ —	Quails.	1 00 @ 1 50
do store.	15 @ 19	Mallards.	4 00 @ 5 00
Eastern, lined. . . .	10 @ 12 1/2	Spring.	2 00 @ 3 00
Eastern, fresh. . . .	16 @ 18	Teal.	2 00 @ 2 50
FEED.		Small ducks. . . .	75 @ 1 25
Bras, ton.	12 @ 13 50	Canvas back. . . .	4 50 @ 6 00
Feedmeal.	24 @ 26 00	Gray geese.	2 50 @ 3 00
Gr'd Barley.	18 @ 19 00	Brant.	1 25 @ —
Middlings.	15 @ 16 00	Snipes, English. . .	3 00 @ 3 50
Oil Cake Meal. . . .	30 @ —	do Jack.	1 25 @ —
Manhattan Food. . .	Per 100 lbs. 7 50 @	do EGG FOOD. . .	12 @ —
HAY.		Manhattan, P lb . .	@ —
Compressed.	8 00 @ 12 00	PROVISIONS.	
Wheat, per ton. . . .	9 50 @ 12 00	Cal. Bacon.	
Wheat and Oats . . .	5 50 @ 14 00	Heavy, lb.	11 @ 12
Wild Oats.	10 00 @ 12 50	Medium.	12 @ 14
Clover.	10 00 @ 13 00	Light.	12 @ 13
Tame Oats.	10 00 @ 11 50	Extra Light.	13 @ 14
Barley.	9 00 @ 11 00	Lard.	10 @ 11 1/2
Barley and Oats . . .	9 00 @ 11 00	Cal. Sm'd Beef . . .	11 @ 12
Alfalfa.	7 00 @ 9 00	Hams, Cal.	12 @ 14
Compressed.	7 00 @ 8 00	do Eastern.	13 @ 14 1/2
Straw bale.	70 @ 85	SEEDS.	
FLOUR.		Alfalfa.	12 1/2 @ 13
Extra, City Mills . .	4 60 @ 4 75	Canary.	3 1/2 @ 4
do Co try Mills . . .	4 50 @ 4 70	Olive, Red.	12 @ 13
Superfine.	3 50 @ 4 00	White.	20 @ 22
GRAIN, ETC.		Cotton.	20 @ 22
Barley, feed, cti. . .	7 1/2 @ 8 1/2	Flaxseed.	21 @ 3
do Brewing.	9 1/2 @ 9 5	Hemp.	31 @ 41
do do Choice.	9 7 1/2 @ 9 5	Italian Rye Grass. .	10 @ 11
Chevalier cace . . .	1 30 @ 1 40	Perennial.	7 @ 9
do com to good . . .	1 10 @ 1 20	Miller German. . . .	5 @ 6 1/2
Buckwheat.	3 25 @ 4 00	do Common.	5 @ 6
Corn, White.	1 07 1/2 @ 1 16	Mustard, yellow . .	17 @ 21
Yellow.	1 07 1/2 @ 1 15	do Brown.	22 @ 31
Oats, milling.	1 15 @ 1 20	Rape.	17 @ 2
Choice feed.	1 10 @ 1 12 1/2	Ky. Blue Grass. . .	13 @ 14
do good.	1 17 1/2 @ —	2d quality.	14 @ 16
do fair.	1 05 @ —	Sweet V. Grass. . .	75 @ 16
do Gray.	1 05 @ —	Orchard.	14 @ 16
Rye.	1 65 @ 1 85	Hungarian.	7 1/2 @ 8
Wheat, milling. . . .		Lawn.	27 @ 40
Gilt edged.	1 41 @ 1 50	Mesquit.	6 @ 8
do Choice.	1 47 @ —	Timothy.	6 @ 7
do fair to good . . .	1 42 @ 1 45	TALLOW.	
Shipping, cho'ce . . .	1 41 @ 1 42 1/2	Crude, lb.	3 @ 5
do good.	1 40 @ 1 —	Refined.	6 @ —
do fair.	1 36 @ 1 38 1/2	WOOL, ETC.	
HIDES.		SPRING - 1888.	
Dry.	11 @ —	Humboldt and	
Salted.	5 @ —	Mendocino.	18 @ 25
HOPS.		Sac'to valley.	15 @ 22
Oregon.	8 @ 15	Free Mountain. . .	18 @ 24
California.	8 @ 15	S Joaquin valley . .	11 @ 19
ONIONS.		do mountain. . . .	13 @ 21
Red.	— @ —	Calav & F'hil. . . .	15 @ 25
Silver-skin.	1 25 @ 1 85	Oregon Eastern. . .	13 1/2 @ 22 1/2
NUTS - JOBBING.		do valley.	21 @ 25
Walnuts, Cal. lb . . .	7 @ 7 1/2	FAIL 1888.	
do Chile.	9 @ 10	So'n Coast, def. . . .	10 @ 13
Almonds, hd shl. . .	5 @ 6	do do.	11 @ 16
Soft shell.	9 @ 10	San Joaquin.	11 @ 16

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, March 20, 1889.

Apples, bx, com	— @ —	Okra, dry, lb.	15 @ 25
do Choice.	— @ 2 —	do Green bx.	— @ —
do Extra, bbl	3 00 @ 5 00	Parsnips, cti.	1 00 @ 1 25
Bananas, bunch	1 50 @ 3 00	Peppers, dry, lb.	8 @ 10
Cranberries.	7 00 @ 8 00	Squash, Sum.	10 @ 15
Limes, Mex.	4 00 @ 4 50	mer, bx.	— @ —
do Cal.	60 @ 1 00	do M'w-fat tnl	12 @ 18 00
Lemons, Cal. bx	75 @ 1 75	String beans, lb.	12 @ 18
do Sicily, box	4 00 @ 5 00	Turnips, cti.	50 @ —
do do seedling	2 00 @ 2 25	Beets, sk.	50 @ —
Oranges, Com bx	1 00 @ 1 75	Cabbage, 100 lbs	45 @ 55
do Choice.	2 00 @ 2 75	Carrots, lb.	25 @ 30
do N'v'els	3 75 @ 4 50	Green Corn.	— @ —
do good do.	3 00 @ 3 50	Green Peas, lb.	12 @ 3
do do Com.	1 25 @ 2 00	Sweet Peas, lb.	3 1/2 @ 6
Pineapples, doz.	4 00 @ 5 00	Mushrooms, lb.	8 @ 20
Raspberries ch.	— @ —	Rhubarb, lb.	10 @ 17 1/2
Strawberries ch.	— @ —	Cucumbers doz.	1 00 @ 1 75
VEGETABLES.		Garlic, sk.	50 @ 75
Asparagus, lb.	7 @ 10	Tomatoes, rv, bx	2 75 @ 2 50
do extra choice	12 1/2 @ 15	Egg Plant, lb.	— @ —

Dried Fruits, Etc.

The quotations given below are for average prices paid. Choice to extra choice fetch an advance on the highest quotations while poor sell slightly below the lowest quotations.

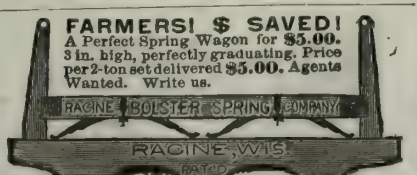
Prices named for sun-dried are for fruit in sacks. Add for 50-lb. boxes 5c per lb., and for 25-lb. boxes 5c to 1c per lb.

Apples, sun-dried, quarters, common.	34 @ 38
" " " prime.	34 @ 42
" " " choice.	4 @ 42
" " " sliced, common.	34 @ 44
" " " prime.	44 @ 44
" " " choice.	44 @ 44
" " " Evap. bleached, ring, 50-lb boxes	6 @ 6 1/2
Apricots, sun-dried, unbleached, common.	4 @ 5
" " " prime.	5 1/2 @ 6
" " " choice.	6 @ 8
" " " bleached, prime.	11 @ 12
" " " choice.	12 @ 13
" " " fancy.	13 1/2 @ 15
" " " Evap. choice, in boxes.	16 @ 17
Figs, sun-dried, white.	4 @ 4 1/2
" " " washed.	— @ —
" " " pressed.	24 @ 3
" " " unpressed.	24 @ 3
Grapes, sun-dried, stemless.	11 @ 21
" " " unstemmed.	3 @ 5
Nectarines, sun-dried, in boxes.	5 @ 10
Peaches, sun-dried, unpeeled, common.	24 @ 22
" " " prime.	3 @ 3 1/2
" " " choice.	4 @ 4
" " " fancy.	5 @ 7
" " " evaporated.	6 @ 8
" " " sun-dried, peeled, prime.	7 @ —
" " " choice.	8 @ —
" " " fancy.	9 @ —
" " " evaporated.	10 @ —
" " " in boxes, choice.	12 @ —
" " " fancy.	12 1/2 @ —
Pears, sun-dried, quarters.	3 @ 4 1/2
" " " sliced.	5 @ 6
" " " evaporated.	7 @ 8
" " " ring.	7 @ 8

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PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by NELSON GORUM, Sergeant Signal Service Corps, U. S. A.)

DATE.	Portland.			Eureka.			Red Bluff.			Sacramento.			S. Francisco.			Fresno.			Keeler.			Los Angeles.			San Diego.											
	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.								
March 13-19.																																				
Wednesday	29	58	S	Cy.	.60	58	SE	Ry.	.62	58	S	Cy.	2 18	56	SW	Cy.	2 54	60	S	Th.	.46	64	E	Cy.	.08	52	SW	Cy.	2 22	58	SW	Cy.	.12	60	S	Ry.
Thursday .....	.04	54	S	Cy.	.52	56	SW	Cy.	.16	58	E	Cy.	.38	60	S	Fr.	.28	59	S	Cy.	.18	60	E	Cy.	.12	56	S	Cl.	.21	60	SW	Fr.	.14	62	SW	Cy.
Friday .....	.40	62	Nw	Cl.	.26	52	E	Ry.	.62	48	S	Ry.	.54	50	SE	Cy.	.78	54	SE	Cy.	.74	48	E	Ry.	.16	42	SE	Ry.	.61	54	SW	Fr.	.36	56	W	Cy.
Saturday .....	.T	68	S	Cy.	.02	56	W	Cl.	.06	60	S	Cl.	.32	60	Nw	Cl.	.23	59	W	Cl.	.46	52	E	Cy.	.12	42	SW	Cy.	2 52	52	W	Cy.	.80	54	SW	Cy.
Sunday	19	50	S	Cy.	1.66	—	—	—	.12	52	S	Ry.	.T	56	SE	Cy.	.01	55	S	Th.	.00	60	E	Cy.	.04	48	SW	Fr.	.32	60	W	Cl.	.55	62	W	Fr.
Monday	22	50	S	Cy.	.08	54	SW	Cl.	.58	56	S	Fr.	.62	56	S	Cy.	.52	56	W	Fr.	.14	52	N	Cy.	.00	58	S	Cl.	.00	60	W	Fr.	.00	60	Nw	Cl.
Tuesday .....	.10	58	E	Cy.	.16	52	S	Ry.	.00	54	S	Cy.	.00	56	S	Cy.	.00	59	SE	Cy.	.02	62	S	Fr.	.00	58	SE	Fr.	.00	58	SW	Cy.	.00	60	Nw	Cy.
Total	1.24				3.30				2.16				4.04				4.36				1.80				.52				5.88				1.97			
EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Ry., foggy; Cm., calm; — indicates too small to measure. Temperature, wind and weather at 12:00 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.																																				

Plums, pitted, sun-dried.....	7 @	5 1/2 @ 6 1/2
" "		

California Products at Chicago.

CHICAGO, March 20.—California oranges are easier, owing to free offerings at auction yesterday, and Messinas rule quiet, dull and slow. At the auction sale, transactions at the following prices took place: California Navels (Washingtons) sold at \$4 @ 4.50 # box; Duarte and Treston Navels, \$3.25 @ 3.75; Mountain Seedlings, \$2.50, and Duarte and Anaheim at \$2.25 @ 2.50. A car of heated stock sold at \$1.40 @ 1.90. Total sales were about five cars. Street quotations were as below: California Riverside, # box, 176 in box, \$3; do, do, 126 to 150 in box, \$2.75 @ 3; California San Gabriel, # box, \$2 @ 2.50; California Duarte, \$2.25 @ 2.50; California Navels, \$3.25 @ 3.50; do (Washingtons), \$4 @ 4.50.

The California dried fruit market has become weak again, as sales at reduced prices yesterday plainly show. Arrivals lately have been somewhat more liberal, while the demand has remained restricted. Present prices are as below given:

Apricots—Evaporated, bleached, bxs, # lb, 11 @ 12c; do, sun-dried, according to quality, 6 @ 8c. Peaches—Evaporated, bleached, unpeeled, bxs, 8 @ 9c; do, sun-dried, bleached, unpeeled, bxs, 6 @ 7c; do, sun-dried, unbleached, unpeeled, bxs, 5 @ 5 1/2c; do, sun-dried, peeled, bxs, 10 @ 12c; do, do, bxs, 10 @ 10 1/2c; do, evaporated, peeled, bxs, 12 @ 13c. Nectarines—White, evaporated, bleached, bxs, 7 @ 8c; do, sun-dried, bleached, bxs, 7 @ 8c; do, red, evaporated, bichd, bxs, 6c; do, red, sun-dried, bichd, bxs, 4 @ 5c. Plums—New, pitted, sacks, 6 1/2 @ 7c; new, unpitted, sacks, 4 @ 7c. Prunes, according to size, in bxs, and dry, 5 @ 9c; do, damp, 3 @ 4c; do, Silver, 10 @ 12 1/2c; do, Hungarian, bxs, 3 @ 5c.

Raisins—Loose Muscatels, new, # box, \$1.35 @ 1.65; do, London layers, new, \$1.65 @ 2.

The hop market rules firm. Sales are not large, but there is a steady business and trade is fully as good as can be expected for this time of the year. Stocks are rather light and prices range as below: Washington Territory, best, 24c; good to prime Pacific Coast, 20 @ 22c; fair to good do, 18 @ 20c.

Beans remain steady, with a moderate sale. Mediums are quiet. California pea beans, \$1.75 @ 1.80 # cti; do, Lima, 5 1/2 @ 6 # lb.

Fresh California cauliflower quotable at \$2 @ 4 # doz, according to quality.

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Most Happy Combination

—OF—

UTILITY and ART

Ever Produced.

THE NEW HOME SEWING MACHINE.

See our New Attachments. Buy nothing else. Write for terms and prices, cards and banners to The NEW HOME SEWING MACHINE CO. CHAS. E. NAYLOR, Gen'l Manager, 725 Market St., History B'd'g, S. F. Local Agencies everywhere.



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RICORD.

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BUY NONE BUT THE GENUINE.

DR. RICORD'S RESTORATIVE PILLS, a specific for exhausted vitality, physical debility, wasted forces, nervous derangements, constitutional weakness, etc., approved by the Academy of Medicine, Paris, and the medical celebrities of the world. Agents, J. G. STEELE & CO., 635 Market Street, Palace Hotel, San Francisco, Cal.

Sent by mail or express anywhere. Box of 50, \$1.25; of 100, \$2.00; of 200, \$3.50; of 400, \$6.00; preparatory pills, \$2.00.

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LIGHT DRAFT. MADE OF IRON. STRONG, SIMPLE, DURABLE. EASILY OPERATED.

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Violin for Sale.

A first-rate Violin, good as new, can be bought at a bargain by applying to CHAS. HAMMOND, Music Store, 2513 1/2 Mission St., S. F., and referring to this advertisement.

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Use Wheeler's Carbon Bisulphide.

Applied as a liquid, it turns immediately to vapor, destroying all inmates of the hole. The liquid is not poisonous and may be applied with perfect safety to the operator. SOLD BY ALL DEALERS, also by the manufacturer, JOHN H. WHEELER, No. 216 Montgomery St., San Francisco.

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Reserved for the Spring Trade of 1889.

Will be Placed on Sale March 25th.

20 PERCHERON and FRENCH COACH STALLIONS—all choice animals—Prize Winners at the Three Great Shows of France, 1888, as follows: That of the Societe Hippique Percheronne at Nogent-le-Rotrou, the Government Show at Alencon, and the Horse Exhibition of Paris.

I have found each year that a number of my customers could not conveniently buy until late in the season, and it was to accommodate these that I last Fall made a reserve of TWENTY of my BEST STALLIONS, old enough for service, which will be placed on Sale March 25th, 1889, it being my determination to so control my importations that I can offer purchasers a first-class horse any day in the year.

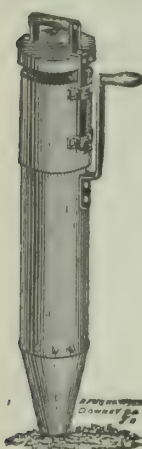
A Satisfactory Breeding Guarantee given with each Animal Sold.

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ANNUAL COMBINATION SALE.

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This is an apparatus for
Burning Straw and
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And forcing the Smoke and Gases
down their holes, which kills them.
Does away with poisoned wheat
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Every one guaranteed or
money refunded.

Price, \$3.00

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WHERE.

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HAY CARRIERS**

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LIFT PUMPS**

Simple, durable, powerful, easy to operate.
Never affected by frost. Patent GLASS
VALVE, will never corrode. Ask your
dealer for our goods. Write for catalogue.
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OF THE AGE.

TO FRUIT GROWERS.

PROTECT YOUR TREES

AGAINST

Sunburn, Rabbits, Borers
and other Pests.



THE EXCELSIOR FRUIT TREE
PROTECTOR

Is not only a protection against
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pared, is proof against Rabbits,
Borers, etc., and is approved and
being used by all orchardists who
have examined its merits.

Buy no other until you have seen
the EXCELSIOR. Its simplicity of
fastening will recommend it, as it
requires one-third less time to
adjust it than any other make.

Price for Protection from Sunburn, \$1
per 100

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Rabbits and other Pests, \$2 per 100.

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SEND FOR SAMPLES.

PROTECT YOUR TREES

FROM

Sunburn, Borer, Rabbits, etc.

One Cent per Tree!

Hay's Tree Stem Envelope
(Patent applied for).

WATERPROOF! ADJUSTABLE!

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Saves time, trouble and expense.

Waterproof Paper, 7x15 inches, \$1
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Tarred Felt, vermin and waterproof, good for 3 years,
7x16 inches, \$2 per 100. Special sizes made to order.
Send for samples. Orders promptly filled by

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BEST TREE WASH.

"Greenbank" 98 degrees **POWDERED CAUS-
TIC SODA** (tests 99.3-10 per cent) recommended by
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Cheapness and Dura-
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WILL LAST FOR YEARS.

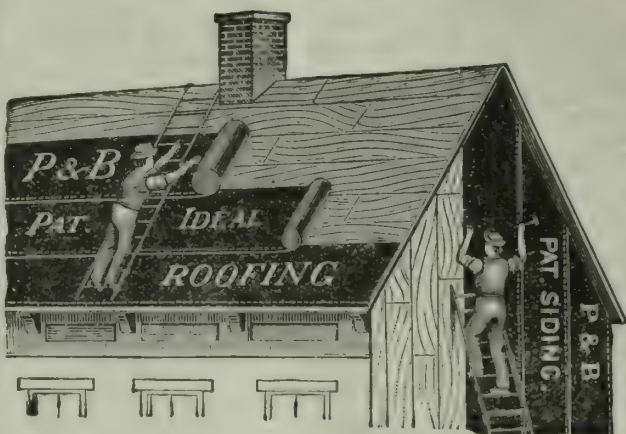
Cannot be Torn. Any-
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Cattlemen, Ranchmen
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Seeds, Plants, Etc.

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We will send by mail, to any address in the United

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10 Everblooming Roses, all different and

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Also a large lot of other Dollar Collections.

Also will send by mail one-year old Vines of the ship-
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Send for list of kinds to

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And all kinds of Small Fruits, Grapevines, Forest Tree

Seedlings for Timber Claims at hard-time prices.

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Three hundred acres in nursery within 50 miles of the

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Send at once for price list.

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160 ACRES NURSERY!

1,500,000 TREES AND VINES!

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Stock for the ensuing season, consisting of a full line of all the Standard Varieties of

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Guaranteed, and the NEW LYONS CLING PEACH. We have an immense stock of ROOTED
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Offer their immense stock of Citrus Fruit Trees, all choice and healthy, at a bargain. Varieties strictly genuine
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Special prices quoted on large orders. Send for descriptive catalogue and price list to

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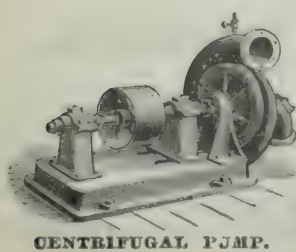
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Hatch's and Commercial Almonds,
All 1-year-old. No. 1 stock.

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Offers for sale this season the largest and
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Azaleas, Camellias, Rhododendrons,
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Also Monterey Cypress, transplanted in boxes and open
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White Adriatic Figs grown and packed by me for sale
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25 Trees at 100 Rates

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Trees have been kept back and none shipped that are
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JAPANESE TREE IMPORTING CO.,

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Japanese Seedless OONSHIU (Mandarin-
Kid-glove) a Specialty.

JUST ARRIVED, per Gaelic, in fine condition, round
and long fruit Camquots (in bearing), Tamba Mam-
moth Chestnuts, Plums (To Sumomo), Pears
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Azaleas and other shrubs.

Four more Japanese Gardeners came to us, making 46
in our employ in various parts of the State, caring for
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Send for prices. We keep also Domestic Trees,
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ORANGE TREES!

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Great Reduction in Prices.

FIRST-CLASS TREES.

The Best Orange Trees are now within the
reach of all planters. Genuine Riverside
Washington Navels, of our own budding, and
other varieties at about one-half usual prices.
Navel Orange orchards \$300 to \$400 an acre.
Orange and Vineyard lands at low prices.

Also Rooted Muscat Vines and Cu tings.

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IT WILL BE TO YOUR ADVANTAGE, if you want PURE,
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LAWN or PARK, to send for our BEAUTIFULLY ILLUS-
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Grass, Farm and Garden Seeds, Plants,
Trees and Bulbs in stock.

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ESPARCET SEED.

I will furnish seed imported fresh from Germany of
this season's growth at the following reasonable rates:
In Lots of 20 pounds and over, 15 cents
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By mail, post free, per pound, 25 Cts.
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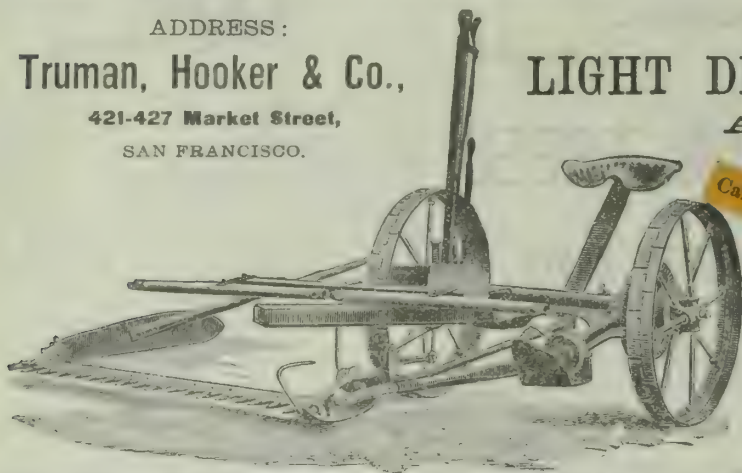
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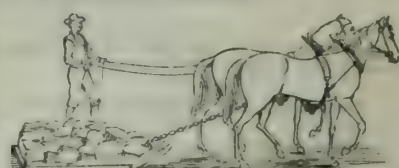
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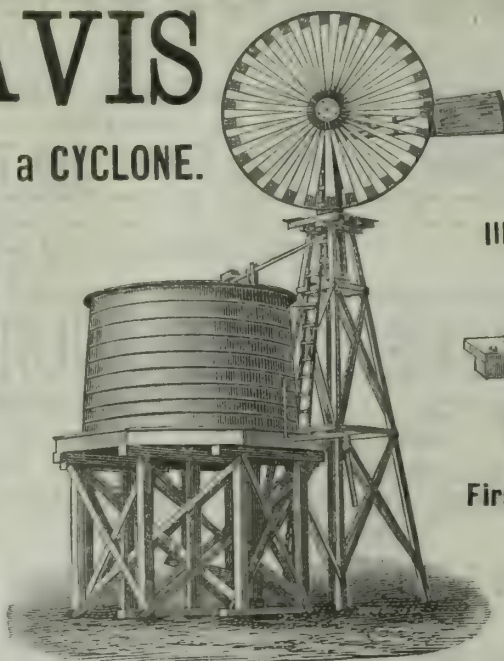
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STOCKTON, CAL., March 5, 1889.—R. F. WILSON—DEAR SIR: I consider the Improved Davis Windmill superior to all other Windmills. It will run with very little wind, is very simple and compact in construction, does its work well, and is a good regulator. One of the best points is that there is no expense for repairs, and very little attention as to keeping the bolts tight, there being less bolts in it than any mill I ever saw. The storms do not injure it in the least, as it will turn away from the wind when it blows a gale, and will return and face it when the wind is moderate. It is strong, simple, durable and a good regulator. Yours truly,

JONES RANCH, March 6, 1889.—MR. R. F. WILSON—DEAR SIR: I feel it my duty to write you these few lines in regard to your Windmill. After trying a number of different mills, without being satisfied with any, two years ago I called at your shop to examine yours and purchase one. Since that time I have bought six for our ranch and one for my own use at Merced. Some of the mills are raising water 150 feet, and the whole lot have not cost one cent for repairs, except for oil. They regulate splendidly in all kinds of storms, and run with less wind than any of our other mills. I need not wish you success, for any person who buys one will never have any other kind. Yours respectfully,

CHARLES KELLEY, Supt. for J. W. Jones, San Joaquin and Stanislaus Counties.

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TWENTY-FOUR PAGE EDITION.

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SAN FRANCISCO, SATURDAY, MARCH 30, 1889.

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Mossbrae Falls.

We present on this page a photo-facsimile of a scene of rare natural beauty and of exceptional interest in the peculiar methods of Nature's work which it embodies. The scene is situated

rived from the melting ice and snow of Shasta flows down its flanks on the surface. Probably 99 per cent of it is at once absorbed and drained away beneath the porous lava folds of the mountain to gush forth, filtered and pure, in the form of immense springs, so large, some of

water is very striking, and colors the entire stream, with the exception of the portions broken into foam. The color is chiefly due to a species of algæ which seems common to springs of this sort."

Such grand springs are frequent in the Shasta

These beautiful descriptive lines by Mr. Muir will add to the interest of our engraving, and will give an intimation perhaps of the treasures of the Shasta region and of our other mountain districts. Railways and improved carriage-roads are making these places more ac-



MOSSBRAE FALLS, NEAR UPPER SODA SPRINGS, IN THE MT. SHASTA REGION OF CALIFORNIA.

in the Mt. Shasta region and lies very near the Upper Soda Springs. The observer will say at first glance that it is a waterfall, and such of course it is, and yet not what is commonly implied by the term, for one would search in vain upon the summit of the bluff for the stream which is usually the parent of the waterfall. Waterfalls without apparent source are common in the Shasta region. Their sources, their methods and their beauties are charmingly described by John Muir in one of the later parts of his "Picturesque California" as follows:

"Only a very small portion of the water de-

them, that they give birth to rivers that start on their journey beneath the sun, full grown and perfect without any childhood.

"This flat current, issuing from horizontal seams in the face of the wall of the river gorge, in one unbroken sheet flows in a lacework of plashing, upleaping spray over boulders that are clad in green, silky algæ and water-mosses to meet the smaller part of the river, which takes its rise higher up. Joining the river at right angles to its course, it at once swells its volume to three times its size above the spring. The vivid green of the boulders beneath the

region. Sometimes one hears their sounds long distances. Sometimes he comes upon them almost unawares. Speaking of one in particular, Mr. Muir says: "The Big Spring of the Sacramento is about a mile and a half above Sissons, issuing from the base of a drift-covered hill. It is lined with algæ and mosses, and shaded with alder, willow and thorn bushes, which give it a fine setting. Its waters apparently unaffected by flood or drouth, heat or cold, fall at once into white rapids with a rush and dash as if glad to escape from the darkness to begin their wild course down to the plain."

cessible. Our agriculturists should not allow these resorts to be enjoyed alone by foreign tourists and city campers. The proposed excursion of Californians to attend the meeting of the Oregon State Grange, if carried out, will lead many to acquaintance with the Shasta region. In nearly all parts of the State there are romantic spots which can be easily reached by wagon, to which the family can be taken for a restful outing this summer. Let them all be enjoyed. With a good outfit of team and wagon and camp equipage, a family can cheaply enjoy an excursion, covering many miles of distance.

CORRESPONDENCE.

Florida Notes.

Editors Press: Fair Florida has belied her reputation this year. It has been neither fair nor warm. The winter of '88-89 was made memorable by the "great freeze," but I think even that winter has been surpassed by this, not, of course, in the spurts of severe cold, but in the total aggregate of low temperature. In the five winters we have passed in Florida, we have never before so continuously felt the need of a fire; never have there been so many raw, rainy days, sometimes continuing for a week, during which rain fell more or less every day, and the sun was invisible from beginning to end. It has been a Californian winter—so far as rainfall is concerned—rather than a Floridian. Many of the lakes in Central and South Florida are reported higher than they have been for 18 years; the great Disston sugar plantations, on drained land in the Kissimmee valley, have been much damaged by submergence (we have no freshets or washouts in this level land); and the cattle on South Florida savannas and in the piney "flatwoods" of this section have suffered much for lack of dry sleeping-grounds.

A neighbor who keeps a careful record tells me there have been 26 frosts this winter up to date (Feb. 24th). The enormous amount of rainfall, accompanied by so cool an atmosphere and so many frosts, has been hard on the strawberry plants, especially those that were not in a strong and thrifty condition when winter began. Red leaves, showing the initiatory stages of decay, have been sprinkled thick over some plantations, reminding one of the maple leaves in the North in early autumn. The setback given the plants by the hard weather has caused many patches to be attacked by leaf-rust, which has gained so strong a foothold that, unless the warm weather to which we are fairly entitled soon gives them a decided impetus strong enough to grow out of it, the yield of berries will be seriously curtailed. This rust is thought by Prof. Burrell to be caused by a vegetable fungus which attaches itself to the leaf, its roots radiating in a circle, and feeding on the substance of the leaf until it is destroyed.

Our growers here have tried many remedies, but to little avail. Potash-water, sulphate of potash, cotton-seed meal and other substances have been sprinkled on the leaves with little, if any, effect. This spring, nitrate of soda is being tried by a number, and a few who experimented with it last spring (too late, however, to influence the yield of fruit) give us much encouragement to believe that it will afford a measure of relief. Nitrate of soda is a powerful stimulant; it causes the plants to take on a very rapid growth for a few days, which seems to enable them to grow out of the rust, to overcome it, as it were. The only objection raised against its use by Northern correspondents to whom we have applied for information is, that it induces so rank a growth of the plant as to render the berries soft and unfit for long transportation. At any rate, the fact appears to be tolerably well established that the most effective measure against rust is prevention in the shape of vigorous and continuous growth, to be maintained throughout the winter as much as possible by liberal fertilizing and judicious cultivation.

The fact that rust has so often attacked plants soon after the mulching is applied (this is generally scattered on about Jan. 1st) has caused many growers to believe that this is the cause of the phenomenon. This is probably true only indirectly, in that the mulching suddenly cuts off the sunlight and chills the ground, thereby giving the plants a temporary check, which invites the fungus. Observing growers have noticed that the same conditions, substantially, prevail before the scale attacks orange trees—namely, a check in growth from lack of fertilizer and tillage.

Notwithstanding the repeated frosts this winter, the latest of which occurred yesterday morning, considerable shipments of strawberries have already been made. Monday, the 18th, nearly seven bushels were sent forward by express, mostly to New York. A half-bushel sent to Boston on the 15th, sold readily for \$1.75 per quart; later shipments have brought \$1.50 and \$1.25. Berries can be forwarded by open express without ice as late as April 10th or 15th, when carefully picked and sorted; and your correspondent has successfully shipped this way as late as April 30th, with the thermometer at 90° in the depot; but this is risky.

Heretofore nine-tenths of the Florida berries have gone by steamer from Savannah; this year, arrangements are about completed to give us an all-rail service. This will cost us ten cents a quart (the same as by steamer), and a cart-load, on the basis of 7000 quarts, will cost us \$700. In practice, a refrigerator car seldom starts North with over 6000 quarts, making it cost \$600. The fact that the strawberry men can stand such charges and still make money, speaks well for the business. Your correspondent is familiar with two acres on which last spring a profit of over \$500 per acre was made, clear of all expenses whatsoever.

Last spring about 35 carloads were forwarded from this station. This spring we expect to

ship 75 or 80 carloads, as our acreage is more than doubled. Seventy-five bushels per acre is an average yield for the shipping season, though your correspondent shipped last spring 205 bushels from two acres. We shall have, when the season is fully opened, one, two or three refrigerator cars standing on our spur-track all the while, loading for Chicago and the Eastern cities, as there is going to be a lively competition. This (Bradford) county is the leading one in the strawberry-growing industry; there are about 250 acres in it.

The length of the strawberry season in Florida is remarkable. Last winter your correspondent sold his first berries February 10th; began to ship to the North on the 22d; made his last shipment May 8th, but kept on picking for wine, canning, etc., for a month longer, and his children gleaned enough berries to make a final shortcake July 4th, all from a single variety, the Newman Improved!

This industry has a bright future in Florida. Our berries are considerably earlier than those of Louisiana and Mississippi, and they bear transportation to the far North much better than the fruit grown in the rich alluvial soil of those States. S. POWERS

Lawley, Bradford Co., Fla.

Notes on San Luis Obispo County.

EDITORS PRESS:—San Luis Obispo county has ever ranked with the first dairy counties of the State. In fact, until within the last two or three years little attention was given by the settlers to any industry except stock-raising and dairying. It was not so much because people did not believe the soil and climate well adapted to other branches of agriculture, but chiefly because of the lack of rail communication with the seaboard. This want having, in a measure, been supplied by the S. P. R. R. Co., whose line extends from your city to the new town of San Margaritte, ten miles north of San Luis Obispo City, the rich farming lands of the hitherto isolated interior have attracted many settlers. The Government lands have been pre-empted or homesteaded, and many of the grant-holders have adopted the wise policy of subdividing their holdings and are parceling out the same in tracts to suit home-builders. Substantial towns have sprung up in various parts of the county, where but a "few years ago the rank thistle nodded in the wind, and the wild fox dug his hole unscared."

It is the eastern portion of the county which has undergone the most perceptible change recently. A little more than two years ago, where the thriving town of San Miguel stands, the country was almost a literal waste, used only as a sheep range. Paso Robles was unknown as a town, though the virtue of the springs, for the relief of invalids, had attracted attention. Now it is an incorporated city, claiming a population of over 600. The University Experiment Station, located about two miles northwest, is also a feature of interest connected with this section. It was established over a year ago by Prof. Hilgard, on land generously donated for the purpose, by Hon. J. V. Webster. Much credit is justly accorded the latter for his disinterested efforts in securing the station here. The farm is superintended by Prof. R. D. Cruickshank, and comprises about 20 acres. The improvements now represent a cost of over \$4000, and are being continually augmented. Grain-farming and fruit-growing is attracting much attention. The prospect was never so good as it is this year for a large yield of grain, while the few orchards old enough to bear fruit promise well.

During a sojourn in the county of several weeks, traveling in the interest of the Rural Press, I have made the acquaintance of a number of scientific fruit-growers, all of whom report encouragingly on the prospects of the county for becoming noted eventually as a fine fruit growing region. They do not put any particular stress on its adaptability for the citrus varieties, yet doubtless in certain localities as fine oranges and lemons are produced as anywhere in the State. If any should doubt this, let them visit the orchard of E. Leedham, Arroyo Grande, as I have done, and they will be skeptical no longer. The visitor will be well repaid for his pains to call on this gentleman anyhow, and inspect his numerous varieties of fruits and flowers.

The Arroyo Grande district, 15 miles south of San Luis Obispo City, has for years been rather famous for bean-raising, but latterly it is gaining notoriety for the variety and the excellence of its fruits. With the large increase of population since 1886, many fine young orchards are springing up to adorn the landscape. Nearer San Luis Obispo, where the country has had the advantage of older settlement, fruit-raising has passed the stage of an experiment. One of the best looking orchards I noticed on my trip to Arroyo Grande was that surrounding the residence of Judge Steele. It seemed to represent many varieties, and thrift characterized each tree.

About 12 miles east of Templeton is Creston, which would be deserving of little notice but for the fact of the promising district by which it is surrounded. For miles, extending in nearly all directions, the country is rapidly yielding to the civilizing influence of the plow. The rich soil has already been tested, and its adaptability to grain and fruit growing firmly established. Near this place is situated the model homestead of Hon. J. V. Webster, com-

prising about 1400 acres. Mr. Webster has displayed taste, not only in having made the selection of such a place on which to build a home, but in the admirable arrangement of fields, buildings, orchard, etc. The entire tract is surrounded by a fence of seven barbed wires, besides numerous division fences of like description. Having resided upon the place but four years, the improvements indicate that Mr. Webster has set a proper value upon time. He has a superb residence and a thrifty orchard and vineyard of 30 acres, which is just beginning to bear. I was detained at Mr. Webster's home about a week, on account of the great March storm, but the sting of confinement was much assuaged by free access to a well-stocked library, and by the social qualities of his interesting family. F. B. L.

Licorice Farming.

EDITORS PRESS:—In the clipping from the *Woodland Democrat* that you sent me that treated upon the above subject, there are several statements that I do not think are correct.

The people of the United States are perhaps paying from three to five millions of dollars annually in a jobbing way for licorice that could be profitably raised in California and perhaps in other sections of the United States as well, and not near so difficult to raise and perfect the crop as the article in the paper referred to would have us believe.

I have cultivated the plant for the last three years, and my experience teaches me that it is about the hardiest plant and requires less care and fertilizing than almost any other plant; and in order to test its extreme hardihood I have sent a grain-bag full of roots to the superintendent of Golden Gate Park, to be planted in the drifting sand as an experiment; for if it will grow there and do only moderately well, it will be very valuable.

Instead of planting two feet apart, I would plant three to four feet, and instead of 16 inches apart in the rows I would put them two to three feet. Cutting the root slips three to six inches is about right, I should say; but planting them vertically in small holes and the top several inches below the surface, I believe is wrong. And instead of cultivating to the depth of three feet, simple plowing to a foot in depth is quite sufficient, and then planting in a furrow by dropping the cuttings the proper distance apart about six inches deep and covering with a plow or harrow.

I did not find it necessary to dig three feet deep with a spade to harvest the crop, as the great body of the roots were within a foot of the surface and the majority within eight inches.

The article states that "When dug, the side roots used for propagation are cut off, and the main roots are washed, dried and tied in convenient sized bundles."

The side roots are used for propagating, but I have yet to learn that the main or tap root is of value, either in commerce or for propagation.

After a crop is taken off, the cut roots left in the ground will give a good volunteer crop thereafter; in fact, most of the licorice of commerce is grown wild.

Mr. Isaac Lea of Florin, Sacramento county, has had more experience, perhaps, in raising the root for market than any other person in this country. He says that "the best place to grow it is on river-bottoms that are subject to overflow; that the plant is very hardy and will grow anywhere from Maine to Mexico, and will yield 40 to 50 tons of roots per acre where the soil is moist enough to suit it." He has roots for sale in any quantity, but it will soon be too late to plant them unless he has roots laid away.

The bush is much in shape like the currant, and grows to about the same height. It only needs cultivation enough to keep down weeds, while the brush if cut down every fall and scattered broadcast would by spring enrich the soil materially.

I have great faith in the future of this plant in this State, and believe that there are many places where it can be cultivated and harvested by proper implements at a very large profit.

I have only cultivated it out of curiosity, to test its merits, and have no plants for sale. I hope that later on I may secure more proof to substantiate my belief in the great merit of the plant as connected with commerce.

San Bruno, Cal.

R. G. SNEATH.

HORTICULTURE.

Pruning Apple Orchards.

EDITORS PRESS:—In passing through Tuolumne county with its numerous apple orchards, your sense of right and wrong is shocked by the way in which many of these fine trees are butchered. They remind one of a poor devil with arms and legs cut off and only the short stumps left to show the man he once was. Vandalism is hardly the proper name to apply to this tree-butcherer. Imagine whole orchards with every limb cut square off three to eight feet from the trunk, the stumps sending out great bunches of suckers, while the stubs of other limbs project from the tree at every angle, only waiting for the coming season to produce additional sucker limbs. The bearing

portion of the limbs, with all its fruit-spurs, is gone, and a glance over or down upon one of these unfortunate orchards recalls a willow bottom—all shoots. Tuolumne is not alone in this, but by reason of the greater number of her apple orchards and the absence of other fruits, it is the more noticeable. It is against this work of destruction that I wish to write. If I can save one lone apple tree from being beheaded, I will be repaid.

First, then, plant your apple trees 40 feet apart, cut the tree back to four feet, select three forks that will balance the tree, and when about eight inches long clip the ends. When these have grown shoots 18 inches long, cut the ends off again. Wrap your tree to keep the sun from heating the sap, causing it to expand, burst the bark from the tree and die, and then cultivate. If you are in doubt whether to prune or not after the tree is headed, give the tree and your purse the benefit of the doubt and don't. If you find that the tree insists on making a great growth of wood and no fruit-spurs, leave it alone until it is well leaved out and then saw through the bark all around the tree, taking care not to go deeper than the wood. This will check the flow of sap and cause the tree to throw out the spurs instead of making an excess of wood, and it can be made a success on any tree that refuses to bear. If the limbs have grown long and rank, the coming season will find them full of spurs, and the weight of apples will bend them down.

"But my orchard is an old one!" says Mr. Cut-and-Kill. Allow me to sympathize with you. I have one of that kind myself; originally it grew and prospered in the hands of its grower. No better orchard in fruits or beauty of trees could be found, but another came into possession and a wood-chopper was turned loose to run amuck among the trees. If a tree had four branches, he cut off one and left a stump a foot long; if the tree had three forks, he made it two; if two, he made it one, and as this did not make as many cords of wood as he desired, he went up higher and every branch was chopped off of the remaining limbs as high as his ax could reach. As a result the trees threw all their sap into the top branches. Then another man with crosscut saw was called in and the top of the tree was sawed off—like the Duke of York's leg—"short!" So I claim in the language of the day to have "been there."

If you think your old orchard needs an overhauling, look it over first. If your trees are 18 to 20 feet apart, take out every other tree; give those left a chance to extend their limbs and root system. If the tree is as thick as brush with suckers, cut them off close up; leave no stubs. If you must take off a limb, take it off clean and smooth up, and after paring the bark smoothly paint the stump, but don't cut off the ends of an apple limb any more than you would your fingers. E. H. SCHAEFFLE.

Murphys, Cal.

The Fruit-Growers' Convention in San Diego.

President Ellwood Cooper of the State Board of Horticulture has issued a call for the 11th State Convention of Fruit Growers, to be held at National City, beginning Tuesday, April 16th.

The San Diego County Horticultural Society, the Chamber of Commerce, the citizens of National City and San Diego, and the members of the State Board of Horticulture cordially invite fruit-growers, shippers, packers, nursery-men and others interested in horticulture and kindred pursuits to be present at the convention and participate in its deliberations. Every effort will be made to insure a large attendance, and it is to be hoped that the meeting will be one of interest and profit to all. All persons having new fruits and inventions of value to horticulturists are requested to exhibit them at this meeting.

There will be papers and essays by various horticulturists. Among those who have been invited to read papers at this time are L. M. Holt, Riverside; Thomas A. Gary, Los Angeles; W. E. Collins, Rev. O. F. Loop, Pomona; Prof. H. C. Ford, Santa Barbara; Prof. Geo. Hermann, Napa; Felix Gullet, Nevada City; Alex. Crow, Los Angeles; Leonard Coates, Napa; Dr. O. B. Chubb, Oange; Col. W. H. Holabird, Claremont; Prof. D. W. Coquille, Los Angeles; Dr. O. H. Congar, Pasadena; Prof. Lorenzo Yates, Santa Barbara; Geo. M. Gray, Chico; Dr. J. H. Pierson, San Bernardino; L. W. Buck, Vacaville; F. C. Miles, Penryn; Geo. Rice of Alhambra, and various others.

The San Diego organizations above mentioned have arranged various excursions to carry all visitors over the motor-roads to the Mexican boundary, to Oxnard, Olay, and to the great Sweetwater dam and lake of 728 acres; also, around the bay of San Diego on the Belt-line railroad and to the Hotel del Coronado.

All fruit-growers are invited to attend. The Southern Pacific and Santa Fe railroad systems will allow return tickets from all points on their lines to San Diego, provided a receipt for the ticket purchased be taken at the starting-point. This will be countersigned by the secretary at the convention and entitle the holder to a return ticket at one-third the regular rate. Persons going from this end of the State should buy tickets only to Los Angeles, and there arrange for the remainder of the trip. The address of welcome will be delivered by Mrs.

Flora M. Kimball of National City. An interesting address is expected from the president of the board. This assembly of horticulturists bids fair to be one of the largest and best ever held in California.

THE FIELD.

The Beet-Sugar Industry.—No. 1.

[Written for the Rural Press by L. NAGEL.]

The culture of the sugar beet and the manufacture of sugar therefrom has assumed vast dimensions in Germany and France and forms a very important part of the national wealth in these countries. But notwithstanding the progress that has been made in Europe in its development, the knowledge and experience resulting from it has not as yet been applied in such a way in California as to make the production of sugar from this source a matter of any great commercial importance. It may therefore be an interesting subject to those who are at present engaged in and also to those contemplating this industry to read in the following lines the description of the methods of culture of beets as they are carried on in the old country. The meteorological conditions in our State, however, are so very different from those across the ocean that these directions would not strictly be adapted to this country, but can serve only as suggestive to those desiring to attempt establishing the culture of the beet.

Growth of the Industry in Germany.

It must, however, not be supposed that this powerful industry, which has assumed such formidable proportions that in 1885 it netted 101,132,758 marks revenue to the German Government, has always existed in its present extent. On the contrary, it had to develop and to grow from a small beginning, as is shown in the following statistics:

In Germany, in 1836, there were 25,301 tons of beets milled; in 1866, 2,535,635 tons; in 1885, 8,918,130 tons.

The production of beet sugar in 1881 amounted to 594,223 tons; in 1885, 1,150,000 tons, showing an increase of nearly 100 per cent within four years!

In France similar conditions prevail. In 1820 the beet-sugar output was 50 tons; in 1836, 50,000 tons; in 1860, 132,650 tons; in 1878, 420,396 tons, at a value of \$54,425,757.

The universal importance of this industry was rather slow in becoming known. Its originators, like other great men, received ridicule at home and were looked upon by many of their countrymen as insane enthusiasts. Large sums of money were lost, factories failed through lack of experience and perfect machinery—the industry itself sometimes even seemed condemned to failure. But there were some few men found who succeeded in keeping it going until the industry proved itself profitable. The farmers tried and tried again, and when it became thoroughly manifest it was earnestly accepted, and the introduction of the crop in the system of rotation rapidly took hold in all sections in which it could be made successful, and those farmers who at first looked suspiciously on the new industry are now quite enthusiastic in favor of it.

Conditions of Success.

The development of the beet depends in the first place upon a good preparation of the soil and its continued and careful maintenance. As to the soil, it has been proven by experience that any good soil that will grow wheat, barley, corn, and has an arable stratum of 15 to 18 inches will be well suited to its growth, but its subsoil should be permeable and thoroughly drained, so that the taproot may not find either hardpan or stagnant water. New ground, however, or that lately cleared of timber, or land that has not been under continued cultivation at least 10 or 15 years, should not be used for the culture of the beet.

Phosphoric acid, potash, nitrogen compounds and lime are especially necessary to the life of the plant. In the old country, the general source of supply of the various nutritive principles for the restoration of those removed by the crops or to provide those required are found in stable manure, nitrates, superphosphates, made from bones and minerals, potash salts, and the scums and refuse from the sugar factories. Of all these substances, that which combines in itself in the highest degree all the elements of plant food, and which is naturally the most economical, is the stable manure produced on the farm. Sugar beets should, however, never be cultivated upon fresh barnyard manure, because this system of culture gives a large yield in weight, but roots so rich in non-sugar matters that they cannot be worked with profit. To enjoy a beneficial result from its use, it should be distributed at least during the autumn preceding the season of planting, that it may have time to decompose in advance; it is even preferable that it be given to a preceding crop. If, however, applied for the beet crop, it is generally more profitable to give half a dressing of stable manure in the fall and supplement with suitable additions of chemical manures in the spring before sowing. Chili saltpeter is mostly used for this purpose; judiciously applied before sowing, it hastens the vegetation of the plant at the start and helps it through the first stages of growth. When it is exhausted, the stable manures by their slow decomposition supply the subsequent

demands of the plant. The use of nitrates, however, after sowing, and especially in the months of August and September, is absolutely bad and may even be characterized as fraudulent. It increases the weight of the beet, it is true, but also unproportionally the percentage of the non-saccharine parts at the expense of the sugar, and retards ripening.

But the beet must ripen to accumulate sugar within. The success of this industry and the production of a first-class article entirely depends upon the tuber being well matured and perfectly ripe. As sugar is formed in grapes, apples, pears and plums in the last stage of ripening, so with the beet. It attains its greatest amount of sugar in the last stage of its growth.

Any use of nitrates should therefore be accompanied by the subsequent application of a corresponding quantity of phosphates, which have a tendency to counteract any prejudicial influence that the nitrates may exert by hastening the maturity of the plant, which would otherwise remain green and increasing its richness in sugar.

A considerable excess of alkaline matter over the quantity demanded by the crop will tend to increase the saline constituents of the juice, reduce the sugar and make its extraction more difficult.

This question of the mineral constituents of the roots and the influence they exert upon the production of sugar and its extraction from the root, is an exceedingly important one and merits careful study. The juice which contains the smallest percentage of mineral and organic impurities will give a larger yield of sugar than juices in which these constituents exist in larger proportion, having the well-known tendency to increase the proportion of molasses obtained at the cost of the yield of crystallized sugar.

This question of manure, however, is not so very important here; while in Europe farmers are put to great expense for fertilizers, in California, with our rich virgin soil, this expense is saved, and will be for a great many years.

Characteristics of a Good Beet.

The selection of seed deserves the greatest attention on the part of the beet-root grower, as the importance of the variety or race of the beet to be grown for sugar cannot be questioned. It is therefore useful to choose those which will at the same time satisfy the demands of the producer and the manufacturer—that is, that will give a large yield to respond to the demands of the former, combined with good quality and high richness in sugar to meet the expectation of the latter. These favorable conditions are found in roots of moderate size more frequently than in larger ones. It is by no means desirable for the manufacturer to have large beets; the rule is, the smaller the beet the richer in sugar, an average weight of $1\frac{1}{2}$ to $1\frac{3}{4}$ pounds being the most favorable.

By growing very closely, the inferiority of the size as compared with that of other races is in great part compensated for; and on the other hand it has been proven by numerous analyses that these races surpass all others not only in saccharine richness, but also in the purity of its juice, which contains less of ashes and salts than that of any other variety; an advantage of very great importance to the manufacturer.

The importance to the manufacturer of having beets rich in sugar is illustrated by the following figures: Two factories, working the product of 1500 acres, or 25,000 tons beets each, the one having beets two per cent richer in sugar will be able to extract about 500 tons more sugar without any considerable additional expense, and is, therefore, benefited to that extent, or a value of about \$40,000.

These small-sized beets have generally a long, tapering form, which is very desirable for our dry climate, and, moreover, they bear leaves of broad surface—another advantage for our country—as they will, if planted close, develop rapidly. Keep the ground cool; prevent evaporation of moisture, and protect the beet against the heat of the summer months, for the plant is more likely to suffer from too high a temperature than from a deficiency of heat. When we finally consider that beets which bear leaves of broad surface are generally more rich in sugar than those having small leaves upon a concentrated top, we must come to the conclusion that this race of beets, long, tapering in form, of medium size, bearing plenty of large leaves, will be particularly suited to the deep alluvial soil of California.

Among the German varieties, we find the Knauer's Improved Imperial, and among the French races the White Improved Vilmoren, that combine these peculiarities, and it is my opinion that these principally should be cultivated here, not excluding, however, experiments with other races. But whichever be the one chosen, the top of the beet should not protrude from the soil more than one-fourth of its total length, as the top contains none or but very little sugar.

Cultivation and Rotation.

Deep plowing is the first condition of a rational culture. This operation should be effected in advance of winter. Subsequent cultivation should not be spared; it brings about a mellowing of the soil, access and change of air and water, destruction of weeds, deep growth of the root, and improves the size and quality of the plant.

Beets do best after well-manured grain crops; they naturally find place in rotation after wheat or barley. In some cases beets have been pro-

duced two years in succession, especially near Magdeburg, in the so-called Magdeburger Borde, a very deep, rich alluvial soil, but this is possible only in exceptional cases.

Immediately after a crop of cereals the ground is stirred up to break the stubble. In the fall, plow as deeply as the nature of the soil will permit to bury the manure say eight or ten inches, and follow this with a subsoil plowing to a depth of eight or ten inches more, so that the ground will be broken up to a depth of 16 inches or deeper, if possible, without displacing the subsoil. Leave the field with the furrows thus exposed during the winter to the beneficial atmospheric influences and to absorb the rains and winter moisture. This subsoiling, so well known to much more than repay the cost of its application, is very important in the culture of this crop that must take its nourishment through the medium of long tap-roots, which should find no obstacle to their development. In the spring, prepare the soil for sowing by means of the roller and harrow, and in order not to lose the accumulated moisture of winter, avoid, so far as possible, plowing again in the spring. The beet needs a great deal of moisture, and in order to make the culture a success in some parts of California, it would appear that the application of irrigation during the summer months would be an absolute necessity. However, attempts have been made in Lombardy (Italy) to hasten its growth by frequent irrigation during the summer, but it was found to be fatal to it, and growers were forced to adopt other means to assure success, and these were principally in deep plowing and stirring up the soil. This admits a more thorough penetration of the long, tapering root in the soil, a more complete contact with the nutritive elements, moisture, insures the plant against variations of existing conditions, and consequently a healthier state, from which must naturally follow a better quality. However, in this matter of preparing the soil, as in all others, it appears that the grower, while following the general principles enunciated, must be guided by his own judgment and the characters of the soil with which he has to deal.

Sowing is generally effected by means of a drill especially designed; but any drill that will deliver the seed regularly and in sufficient quantity will answer every purpose. Planting by drill requires about 20 pounds of seed per acre and even more. Plenty of seed has to be used in order to secure uniformity in the distribution and to obviate the danger and difficulty of having bare spots in the field that cannot be filled up by transplanting, as transplanted beets will not amount to anything in weight.

The best time for sowing in the old country is considered to be the last week in April and the first week in May, but the rule for California should be: Sow as early as possible according to the temperature of your locality, for by early planting the beet gets the start of the weeds.

Concerning the depth to which the seed should be covered in the ground, opinions differ somewhat; but it will naturally follow that much must necessarily depend upon the temperature of the season, the physical condition of the soil and the proportion of moisture. However, it is considered a good rule not to bury the seed under any circumstances more than one to two inches; that at this depth, other things being equal, a higher percentage of the seeds will grow than at any other.

In all of the beet growing districts of Europe the system of planting in rows has been adopted, but in later years the attention and experiments of the progressive men have been directed to the determination of the influence of the distance between the rows, and the beets in the rows upon the yield per acre and the saccharine value of the crops. By various experiments it has been determined that close culture of medium-sized beets is more profitable at the same time to the grower and the manufacturer, for notwithstanding the smaller volume of the beet produced, the weight of the total yield per acre is very much larger than when larger varieties are separated to greater distances. Beets at small distances from each other, closely planted, are richer, of better quality and less exhausting to the soil, for the constituent principles of sugar are entirely derived from atmospheric sources, while the saline matters only are furnished by the soil and are returned to the farm in the refuse of the factory and fed to cattle. It may therefore be justly said that in the culture of this crop, besides the improvement effected in the physical condition of the soil, its chemical character suffers less from this than from other crops. The extent of separation must naturally vary with the character of the soil, but in order to make cultivation by horse-power possible, a distance of not less than 18 inches between the rows should be adopted, separating the roots from 6 to 7 inches in the rows.

(Concluded next week.)

A SALT SYNDICATE. — The formation of a salt trust now seems assured. The Michigan manufacturers met at East Saginaw, Mich., in secret and agreed to enter the combination. The idea is to cut down all works where fuel costs so much that there is only a narrow margin of profit, and the product of each district is to be regulated by the area it can control. The entire salt-producing territory of the country is to be included. The trust is to have a capital of \$25,000,000.

The great Sweetwater dam near San Diego now holds back a body of water 62 feet deep.

POULTRY YARD.

Bantam-Breeding in California.

EDITORS PRESS:—Your constant reader has become much interested in the Bantam discussion now going on in the columns of the *Poultry Monthly*. In the February number Mr. W. B. Hinesdale writes a very good article on the above noted subject.

On this side of our "big ranch" we believe Bantams are the result of many causes, and that any and all these causes affect the Bantam in less or greater degree. First we know it is a difficult task to rear the Asiatic chick to full size when hatched in early or late summer. Experience is fastening the belief upon us that the Asiatic chick is only one of the family so affected.

Heredity comes to us from causes and effects worked long ago, that established characters that we are able to repeat in the likeness and qualities of the parents. Heredity repeats under the same conditions, and when we change those conditions, plants and animals vary in character.

The Bantam has been produced in various climes. We hear of the Bantam in warm China and Japan, in cold and chilly England, and in the even temperature of the Pacific Coast. I believe I am right in claiming a variety of Bantams have been produced on this coast. About 15 years ago there existed on the hills about Mission canyon a number of flocks of fowls, very small in size, large in wing, and generally red in color, with black splashes in hackle and saddle. The origin of these birds is not definitely known, outside of one fact, that they were brought from Old Mexico about 40 years ago on pack animals, and the variety at that time was the game birds of the native Mexicans. A remnant of this Bantam flock still exists; they are decreasing every year for these obvious reasons:

The eggs are no longer fertile to the extent they were ten years ago, probably from the cause of excessive inbreeding. The hens, I am informed, do not lay as many eggs as formerly; the eggs laid are dropped only when the green grass affords these little runts natural green food. The hens incubate early and late in winter and spring, depending on the season. The late rains in many instances sweep away whole broods and the survivors are usually dwarfed by scanty food, chilly nights, lack of animal and green food, etc. These are the causes that have entered into the Bantam in his creation and in his heredity of character. Is this not a suggestive example of why Bantams are small, and is it not plain to the traveler and observer that summer or spring, with green grass and animal life, may be the representative of one theory East? and quite another state of things might and does exist in remote lands, for in California the winter and early spring rains afford us green grass and animal food in bugs and worms. When May comes to us our grasses have dried up and the cut worms are fast disappearing.

I think it is no more than reasonable for the Bantam-breeder to admit the truth of the teachings of Darwin, Temper, Kolliker and others. Kolliker wrote in the year 1872: "Manifold external conditions when they operate on eggs undergoing their normal development on larvae or other early stages of animals, and on the adult forms, have produced in them partly progressive and partly regressive transformations."

This is the Bantam's case, for our experience has made it quite clear that manifold external conditions have produced and do maintain the Bantam in all his pigmy, elegance and beauty. We are then to conclude that our summer has some influence in keeping the Bantam small. With this influence a check against lowering vitality can be effected by the moderate feeding of cooked meat and other food that may insure health without stimulating the growth of bone or frame. The increase of the size of the first specimen or generation is not the danger to be most feared. We have found that a Bantam reared in winter and fed with all the stimulants of the season may be small in itself, and that the offspring from this specimen in many cases will exceed in size the parent.

Santa Barbara. A. W. CANFIELD.

[We are pleased to have our contributor return to his old place in our columns, in which he did excellent service several years ago.—EDS. PRESS.]

Poultry-Keeping East and West.

EDITORS PRESS:—Will you please ask some of your readers to give their experience in poultry-raising in California, especially as compared with the work in the States east of the Rockies? And I would like to hear from any of our Press family who may have tried the use of incubators.

My Press arrives every Wednesday, and it is the most welcome paper of the week. We work late and early, but we can generally find time to read all the good things about your favored State, and we are all impatiently waiting for the time to come when we can feel able to pack up and be off for the Pacific Slope.

Wyandotte, Kansas. W. H. C.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Patrons' Meeting, Sacramento Co. Pomona, Grangers' Hall, Sac. Mar. 30
Executive Committee State Grange, 220 Market St., S. F. Apr. 2 and 10
Lodi Harvest Feast, 10 A. M. Apr. 3
Deputies' Meeting, 220 Market St., S. F. Apr. 11
Santa Rosa Harvest Feast, Apr. 13
Patrons' Meeting, 220 Market St., S. F. Apr. 17
Lodi Harvest Feast, Apr. 17
Patrons' Meeting, 220 Market St., S. F. Apr. 20
Lodi Harvest Feast, Apr. 20
Patrons' Meeting, 220 Market St., S. F. Apr. 23
Lodi Harvest Feast, Apr. 23
State Grange, Sacramento, Oct. 1

Oregon.

Lane Co. Pomona Mt. Holly Grange, May 4
State Grange, May 28

A Substantial Revival.

The Grange revival is substantial. It is not limited to certain localities. It is shaking monopoly even in regions where, for a time, cheaper organizations seemed to be crowding it out. Our founders were wise when they adopted *Esto perpetua* as the motto of the Order. It was not born that speculators could rob an unsuspecting class for a few years and then let it die. Farmers, more than others, need organization; something which shall protect them from swindlers; something which shall improve them mentally, bring them together oftener, increase sociability. All this the Grange has done, besides saving thousands of dollars to husbandmen, and placing laws on the statute-books of our nation and nearly every State which could never have been placed there by disorganized farmers. A student or graduate of a first-class agricultural college is not ashamed to hang up his diploma. The Grange has made these institutions what they are. A farmer is as much higher than the ordinary dry-goods clerk or book-keeper now as the latter were higher than the farmer before he was educated by the Grange. As our cities continue to be overpopulated and men of brains are forced to till the soil, this caste, if we may use such a word in this connection, will improve, and the farmer will rise with the tide of rural immigration. There will always be work for the P. of H. So long as there are farmers, there will be work for this, their pioneer organization.

A Stirring Appeal.

The following address to a local audience, by our earnest Deputy, A. P. Roache, needs but a change or two of names to make it apply in many places; let our readers else where mentally substitute for "Watsonville" and "Pajaro" whatever will fit their own immediate neighborhoods, and take home the lesson and exhortation:

Farmers are often jokingly termed "chronic growlers," "never satisfied," etc. When one considers the countless natural and unnatural causes which work to their disadvantage, the old joke might well be regarded as containing more than a grain of truth. This year, however, all nature seems to have declared a truce. Everything tends to general improvement in this choicest spot on earth, Pajaro valley. Warm and copious rains give fair promise of an abundant harvest. The almost certain completion of a competing railroad, the great sugar-beet industry, the strong probability of a large fruit-cannery in the immediate future and removal of the tax on fruit-trees, vines, etc., are combined factors of prospective wealth enjoyed by few communities.

Then again, there is the revival of Grange interest, National, State and local, Watsonville Grange alone increasing its membership by 23 in the last six weeks.

Now, farmers, in view of all these bounties bestowed upon you, wake up! get up! stand up! and show by your actions that you appreciate your position and possibilities. Help those who would help you. Subscribe to and write for the Rural Press and your own local papers, one, two or three of them, regardless of politics. It will be money well invested. Their interests are your interests, and while assisting their editors to publish a better paper, and to gain the sinews of war, you can, at the same time, help your own cause, county and country.

But don't stop here. "Onward" should ever be your motto, remembering that to stand still is impossible. You must either swim or be swept along by the rushing current. Join your Grange, the only farmers' institution among you that, with its high moral lessons of forbearance, justice and brotherly love, coupled with the soundness of its business principles, is surely and swiftly elevating the American farmer to that high position which is his by right, considering the importance of the industry which he represents, acknowledged to be

the primal producer of all wealth. Join your Grange, then, and be quick about it. Do you not hear their calls for help on all sides, as they wage almost single-handed the terrible battle of right against wrong? Can you stand passively by while this unequal combat, fought as much for you as for themselves, is going on at the very threshold of your homes, and not lend a helping hand? Do you not, every now and then, hear their shout of victory, as, after superhuman efforts, they capture and destroy some worthless idol, corrupt fort or ancient prejudice, letting in the light of day on wickedness and ignorance, and destroying that arrogant assumption that renders one man master and the other slave? Cast aside, then, your listlessness and prejudice, and let not the few fight the battle while the many enjoy the victory, but show yourselves true disciples of Washington, Jefferson and Adams. Pajaro valley does not merely excel in large pumpkins, fine apples and productive land, but possesses a fine crop of intelligent farmers of brain and mind, whose hearts are in the right place, and whose grit and enterprise no one doubts. All that is needed to give them a grand awakening is agitation and an organized union of their forces, yet ever keeping in mind the maxim of Davy Crockett, "Be sure you are right; then go ahead."

Sacramento County Heard From.

MESSRS. EDITORS:—I desire to break the silence that has reigned so long by sending in a short report from this part of the Grange farm. While I have not had an opportunity to do much work as a Grange Lecturer, I have not been idle in reference to the Grange cause, having been honored with a director's office in our Business Association, and also in our Mutual Fire Association which is sought to be established in this county. It has taken a good many days of my time, and for the last two months I have given more thought to considering the interests of these two Grange enterprises than I have to my own affairs; for I realize this fact, that if we would make the Grange what it should be in numbers and influence, a power in our land for good, a power to successfully contend against official and corporate rascality, it is essential that our numbers shall be large, and that they shall be enthusiastically a unit in Grange interests. To this end, it is very essential that all Grange enterprises should be made successful, an honor to our Order and a monument to the business enterprise of the farmers of our land. For this object I am devoting my time and one talent in helping to conduct one and to successfully launch the other one of the two business enterprises inaugurated by the Grangers of Sacramento county and vicinity.

American River.

Saturday, March 23d, I visited American River Grange and found a goodly number of the faithful and progressive members of said Grange present, all ready to begin the labors of the day. At the request of the Worthy Master, I installed two of their officers, made necessary by reason of one being absent on the regular installation day, and the other by reason of one of their officers moving away and another being elected to fill the vacancy. American River Grange has shown good judgment in the selection of officers to guide the Grange ship for this year. They all seem to realize their responsibilities and propose to faithfully perform all their duties.

Improvements.

By action of the Grange at this meeting, they decided to finish the interior of their hall, wainscoting, lining and papering the same. These improvements, when completed, will make their hall one of the Grange attractions of Sacramento county, and a monument to Grange principles and enterprise. To put on the finishing touches, they propose to earn those new rituals by getting up a class of ten or more. So look out, Bro. Dewey; we are coming, I hope a hundred thousand strong.

The generous rains of the past three weeks have given confidence to all business in general, and a certainty to the farmers in particular. In passing through any part of Sacramento county, the growing grain, beautiful flowers and blossoming trees, with all nature, seem to praise God for His goodness to the children of men.

GEO. W. HACK.

Sacramento, March 25.

PAST MASTER WM. JOHNSTON writes us from Courtland that it was impossible for him to go to San Jose, as his wife and Mattie were both sick. Moreover, he lives five miles from the postoffice, and brethren who expect him to visit them, or who desire a speedy answer, should bear this in mind.

Caution by the National Grange.

MESSRS. EDITORS:—On the 21st of February the Patrons' sign of caution appeared in the Northwest to the effect that the Department of Agriculture was buying seed corn which was taken from the cribs, and that seed corn taken from the cribs in that climate would not grow one year in ten. On the same day the Secretary communicated the substance of the caution to the Secretary of Agriculture. Unfortunately the latter referred the letter to one of his subordinates and an unsatisfactory reply was made to this office. To that I made a vigorous reply, addressing the letter to the Secretary and closing it by saying: "By referring the matter to a subordinate, and by his very weak and pointless letter, we are forced to the conclusion that the matter does not command your interest or attention. My orders from my superior officers are, 'Act promptly and energetically.' In obedience to these orders, having failed to get relief or protection from the Department, I am now preparing the 'Patrons' Caution' to be promulgated to the entire Order."

To this the Secretary of Agriculture sent a prompt (in fact dated same day as my letter) and courteous reply, from which I give this extract: "I shall at once countermand the order by telegraph and mail." On February 27th he wired Bro. Brigham as follows: "The order for corn in the Northwest has been revoked.—Norman J. Colman, Sec'y."

We did not care how much corn seed the Department bought, or where. The only point we made was that "worthless corn seed taken from cribs" should not be distributed to the farmers, our sole duty and aim as officials being to save the farmers of the country from the trouble and vexation which would result from the distribution of poor seed.

This is a brief and plain statement of the case. I may add that I was in constant communication with W. M. Brigham and Col. Lipscomb, and these good and true Patrons did not let grass grow under the feet of the Secretary of the National Grange. It was not a pleasant task to any of the three.

Why the Department of Agriculture should keep its purchases of seeds a secret from the public is a mystery. Why they do not send to the Experiment Stations and get seeds tested by them before purchasing is a mystery.—John Trimble, Sec'y.

We have received the above communication from National Secretary Trimble, and regret that necessity has arisen for publishing it. We know that Bro. Trimble and the officers of the National Grange are sincere, and commend him and them for faithfulness to a disagreeable duty. We have other good authority for the complaint that seeds do not propagate as well as seeds should when sent out by the Department. We still hope some explanation may come that will show that the difficulty is limited and has been or will be remedied. As guardians of the interests of farmers our executives must sound the alarm whenever necessary to save them from loss.

Large Class for Elliott.

MESSRS. EDITORS:—At the last meeting of Elliott Grange, held Saturday, March 23d, we voted for and elected 11 new applicants, who will take the first degree Saturday, April 13, our next regular meeting. We did not think that a class was a class until the applications had been properly received, referred, reported on and the ballot held, hence did not report them sooner. Fraternally,

H. H. WEST,
W. M. Elliott Grange.

Elliott, March 25.

TO SECRETARIES.—Try and send us a list of new subscribers. Such encouragement would be highly appreciated by the publishers of your Grange organ. We are doing the best work possible to give every subscriber more than double value for his subscription money. Also, to double up the Grange roll of membership on this coast. Give us your prompt help, brothers and sisters. Don't wait for some one else to move.

GRANGE COLUMNS IN NEWSPAPERS.—Bro. Ohleyer has a Grange column in his excellent paper, the *Sutter Farmer*. We are glad to see this. Would that more of the country press would follow his example! If the most influential paper in each county had its Grange column, setting before our farmers the advantages of combination, and showing them the progress of our noble Order, it would be a grand thing for the State and the Grange. Many farmers are outside the ranks just because they know little of us. They have no deep-seated prejudices to overcome; yet, farmer-like, they do not go hunting for Grange news, but wait until it shall be brought to them. We shall en-

deavor to push the Grange organ into every household, but we shall be glad to have editors in rural districts publish regularly, or from time to time, such notes in relation to the Grange or its work as they deem will be of interest to their community.

A Granger on our Law-Makers.

Assemblyman D. A. Ostrom, being in Marysville the other day, was asked by an *Appeal* reporter to give an account of his legislative experience this term.

"Well," said he, "to me it has been one of hard work. Several of the measures in which I took an interest and worked hard for were defeated, and I tell you that the reason was very apparent.

"Why, sir, it is a burning shame to the State that such men as some that were in that body are allowed to remain there, and, mark my word, a repetition will cause the people to rise en masse and put a stop to it. They did not seem to care for public welfare, but only what there was in it for them. There were many bills introduced which were not allowed to pass that were tainted with boodles, but there were enough to make it a lasting disgrace. I never thought that there lived knaves in California to the number which I have met there, but what surprises me most is that the people can be duped as easily as they have been by a lot of trickster politicians. Mind you, these parasites are from both parties, at least they claim to be, but they are from anything or place that coin dictates. I suppose the stigma which these fellows created covers us all."

Is it not about time for us to vote for the best men, regardless of party. The Grange should talk this matter up at once and act when the right time comes.

Butte Mountain Pomona Grange.

The regular meeting of the above Grange takes place on Saturday, March 30th, at 1 o'clock P. M. A full attendance is desired, as business of much importance will come before the body. We are sorry to say that Bros. Woodman and Cobb, prominent members of the Order in Michigan, will not be with us on that occasion. Bro. Cobb is somewhere in the South, and Bro. Woodman, after his visit here this week, was unable to prolong his stay until the 30th inst., and took his departure for home Thursday morning. We are informed by Bro. Dewey, Secretary of the C. S. G., that other speakers will be with us on that occasion. We are requested to state that the meeting will be held with open doors immediately after a short program of routine business. Remember the day, all Patrons, and let us have an interesting meeting.—Sutter Farmer.

Worthy Lecturer Flint will address the meeting. We are sure none will be disappointed who attend.

Do Not Fail to Attend.

It is especially desirable that the Deputies' meeting, April 11th, should be attended by all the officers of the State Grange, Executive Committee and the Board of Commissioners on entertaining the National Grange appointed by the Governor, together with all brothers and sisters in good standing who can arrange to be present. As the Worthy Master says, "Let us have a rousing meeting and suggest ways and means to push the work forward."

FEW men go uninsured. Were the expenses less, probably none would run the risk of losing their property, but the exorbitant rates of some companies are such that men are deterred; they feel that it is cheaper to run the risk than to pay out nearly the value of their property just to save it. This has led Patrons to form insurance associations, where the minimum of expense consistent with business safety is adopted. We desire to call attention to the meeting of the Patrons' and Farmers' Mutual Protective Fire Insurance Association at Grangers' Hall, Sacramento, April 3, at 1 P. M., as business of importance will be transacted. Official notice will be found in our advertising department.

SANTA ROSA.—From Bro. Rogers of Santa Rosa we learn that the first and second degrees were conferred on a class of 11, the twelfth being unable to get there, Saturday, the 23d inst.; the third and fourth degrees will be conferred at the next regular meeting, April 13th, and they expect an officer of the State Grange to be there. The combined rituals were used, this being the fourth Grange to use them.

WORTHY MASTER OVERHISER is expected to be in San Francisco by the 9th of April, or earlier, to facilitate the work of the Grange and attend the Deputy meeting. Sister Overhiser will accompany him and attend the meeting of Deputies.

San Jose Harvest Feast.

Addresses of Past Master Coulter, Secretary Cobb of Michigan and Others.

A class of nine received the third and fourth degrees Saturday, March 23, at San Jose. The Patrons had a royal good time and the feast was bountiful. Past Master Coulter, who had been designated to confer the degrees, did so very creditably and proved that he was the right man in the right place. Our readers can form an idea of the good time by the following report taken from the *Mercury*:

Worthy Master Alley made some very appropriate remarks to the newly accepted Grangers, and pleasantly called upon Bro. Coulter, who addressed the Grange substantially as follows:

Worthy Master, Brothers and Sisters:—I said in your hearing a few moments ago that one of the objects of the Grange was to improve the social condition of its members, but this is not, nor ought it to be, the only object. Not only should our intellectual and our moral condition be improved, but also our pecuniary conditions should be made better, and our natures made more happy and have more enjoyment of the fruits of our labor.

We have been coming together to enjoy occasions like this, and we have seen a great improvement in our intellectual and moral natures, but we cannot say as much as to the plethoric condition of the pockets of our members. To get the best results it is necessary that business should pay better than it does. This must be done by a change in legislation. We suffer from the present state of things. Legislation has been controlled for a score of years by other people than agriculturists. Any other class of people are surer to be elected. A lawyer seems to be first choice. A doctor might perhaps do, or a millman, or a merchant, or any one else before a tiller of the soil.

Now we cannot expect any class of persons to favor anything which shall work against the prosperity of his own pursuit or profession. On the contrary, each works for what will most favor his own special business or pursuit in life. When the New Constitution was adopted, there was one provision that no one could be elected Superior Judge except he be a member of the Bar. Now I believe the average farmer is a more honest man than the average lawyer. The lawyers have made our tax laws, and perhaps we suffer more through taxation than anything else. Any bill which comes up is referred to the Judiciary Committee, and this may contain 10 or 15 lawyers, and they fix it to suit themselves.

An Illustration.

I will illustrate how some of these tax laws work. The assessor comes to the farmer and produces his blank statement, and proceeds to begin a formidable list. He puts down the acres. He puts down the number of trees and vines, the horses and colts, the cows and calves, the lambs, goats, chickens, eggs, and all sorts of crops and materials on hand, and then makes them swear that he has not forgotten anything. Then he goes to the merchant and says: "Mr. Merchant, I demand a list from you of all your property." "Oh, no, sir," says the merchant, "I have no time to fool around making a list, and I am not going to do it." "But I am required to make out a list," says the assessor, "and if you don't do it, I shall be obliged to make an arbitrary assessment." Then the merchant tells him to go ahead with his arbitrary assessment, and the assessor gravely puts down the amount of \$25,000 on a stock of goods that is worth perhaps a million and three-quarters. Now, the law says that this arbitrary assessment is unchangeable, and so the merchant pays taxes on only a small part of his property. This is only a single instance of how we are made victims of these laws. Until we are strong enough to correct these matters by sending good farmers to the Legislature, we must endure these abuses.

O. F. Alley: We can correct them now. There are enough of us, if we would only unite. But now let us hear from some of these who have been made Grangers to-day. Tell us how you felt and how you were impressed on your introduction. Let us hear from Mrs. Sears.

Mrs. H. Sears: I assure you, Worthy Master, that I am no talker. In my younger days I used to be a great whistler, but with the loss of teeth I lost my whistle also, which must excuse me for to-day.

Miss Francis: I am sure the addresses and ceremonies are such as call forth much thought and are very impressive. I found them so, and am much pleased.

Give Women the Ballot.

Mrs. Watkins: When Mr. Coulter spoke of the things we suffer in the way of taxation, I agree with him. When woman is

allowed a vote, she will come to the aid of justice, and will help to settle these matters.

C. F. Settle, being called to the floor, said: I became a member of the Grange in 1873 as a charter member, and I have seen many changes since then. We now see Michigan apples mixed up with California oranges. We sometimes see Michigan corn, and to-day I am pleased to see a Michigan Cobb in our midst. I should be pleased to hear from him.

J. L. Cobb: I enjoy an assemblage like this. I enjoy the talks of Bro. Coulter; they are practical; there is truth in them. I can tell you of a case in point in Michigan. A bill was being prepared providing for a commission of some sort, to consist of five members. Three of these were to be lawyers and two of them farmers, and these lawyers framed the bill so that the lawyers were to receive a compensation of \$5000 per year, while the farmers were to receive only \$1000. I attacked these fellows in my paper and made them ashamed of themselves. I have been at work there in this matter for 15 years, and two years ago the farmers elected their Governor in that State, and no man ever did more faithful service than has he, and he said to me that he never felt the need of organization so much as he had since he has been Governor.

A Financial Help.

C. J. Cressey: I am glad to meet Bro. Coulter here to-day. We have worked together a great deal, and I tell you that when he opens his mouth he generally has something to say. I never knew of his deceiving anybody but his wife. Long years ago he promised her not to smoke any more, and sure enough he doesn't, but he pulls away at a good cigar just the same, only he doesn't light it. I think that was a pretty sharp way to get out of it. But I don't exactly agree with him when he says the Grange has not helped our pockets. I can tell you it has done much for me. It has educated me in many ways. It has raised the wheat-growing industry out of difficulty and caused the growers to make money. It has organized the Grangers' Bank, which has done so much to help the same wheat industry along. The Grange has brought money to me and my fellows. The fruit-men will have to do the same as we did, and then we shall hear no more of the overdoing of the fruit business. If the fruits could reach their proper market, there is a call for more than we can produce.

Mrs. Holland: I can see another benefit of the teaching of the Grange. I remember when every one dealt on credit and every one was in debt. I remember when we stopped; and we began to save money from that time on, and I think this is owing to the Grange.

Mr. Coulter: I joined the Grange in 1873 at Santa Rosa. Then every one who had anything to sell brought it to town and delivered it over to the descendants of the vigilance committee which crucified Christ, and it was put on the book; and when they wanted dry-goods, they got them of the same Goldstein, or whatever his name might be, and by and by settled up with a note at two per cent, and, later on, a mortgage. Why, I know of one mortgage of \$35,000, all for goods bought on credit. We talked this subject over in the Grange, and decided to stop such business. It was hard to bring the merchants to it, for they said that when a man bought for cash he always talked about the price, but when he wanted credit he never asked the price, and they charged him anything they chose. From that time on the Grangers flourished, and the Goldsteins were forced to leave the town.

D. Coates made quite an amusing speech illustrating the changes of the later days. He said there were times when women were accused of witchcraft, and those who were so accused were generally those who were old, alone in the world and poor. The test of witchcraft was to plunge the poor woman into a pool of water, and if she sank and drowned it was evident she was no witch; but if she floated ashore she was surely a witch, and must be burned to death. Now, I think this is all changed, and the young women are the witches. Coates did not know whether the Grange had anything to do with this or not.

BROTHER J. V. WEBSTER, who will come to San Francisco previous to the Executive Committee meeting on April 10th, we hope will arrange to visit some of the newly organized Granges between San Francisco and San Luis Obispo on his way up or down. Just write him at Creston, brothers, and see if he will not accept your invitation. He will be busy with his duties on the Board of Supervisors in the first week of April.

TEMESCAL GRANGE confers the fourth degree, under the new ritual, at 10 A. M. on Saturday, April 20th. Eden Grange, State officers and all Patrons are invited.

Lucerne Grange.

MESSRS. EDITORS:—By invitation a number of the brothers and sisters of Tulare Grange visited Lucerne Grange last Tuesday evening, and, of course, had a good time. This Grange is anxious to succeed, and feels very keenly the apathy and indifference to organic action by farmers in general. They also deplore the lack of talking talent which lies dormant in the young brothers and sisters for lack of confidence in themselves, except during recess. But their talk was practical last Tuesday night as they discussed the wisdom of securing sacks at present prices or awaiting developments and the advisability of starting a creamery. Being mostly young persons, a natural difference suppresses a great deal of natural talent of a practical character.

At present they are devising plans by which a Grange revival can be instituted, and the coming picnic season will very likely be taken advantage of for that purpose.

Some have broached the idea of having the Grange meet at Hanford, but that is not likely to take place. They know what they now possess in the few members they have and their sterling worth, but cannot divine the quality of the Grange which might be obtained by removal from the district school-house.

A Better Plan

Would be to have a new Grange formed at Hanford. Two Granges so near to each other would engender a friendly rivalry, provoking each other to good works.

There is room and need for missionary work in this section, as, indeed, everywhere among farmers. No class needs organization more than the farming class, and no other class is more indifferent about it. The question is put to Lucerne Grange which I presume is put to every Grange. What benefit can I derive from the Grange? What has the Grange done for the farmers, anyhow? And because dollars and dimes are not in immediate sight, or because the Grange is not in possession of that magic which can do the work of a century in a year, they, the farmers, see no use in joining the Grange. And yet no class growls louder or longer concerning their oppressions. But their growl has no organic force. The Grange has organic force and can make its influence felt locally in the Assembly at Sacramento and in Congress at Washington.

The Remedy.

The Grange itself does not yet know the extent of its power. It only requires that those who spend their energies in useless growling should come into the Grange, reduce their growl to a consistency, and give it an organic form and force. If the Grange is not what it should be, and I know it is not what it can and will be, all those who see how it may be improved should come inside with their improvements, for all those who are its members now are only men and women, fearfully human, liable to make blunders and fail at times in being as wise as they afterward see they might have been. But in the midst of counselors there is wisdom, and the more counselors the more likely we are to have wisdom.

Lucerne Grange treated us handsomely, and if I had not the fear of "Pansy" before my eyes, I would tell about the good things provided. If Lucerne Grange has not the ponderous wisdom of Tulare Grange, she has youth and beauty and sweet smiles, which make us think with a sigh of the days so long gone by, and on last Tuesday night helped to drive away a little of that acerbity which has become a sort of second nature to us.

My visit also brought me face to face with an old lady friend I had not seen for 20 years. It is good to move around occasionally.

J. W. MACKIE.

Tulare, March 22d.

DAMAGED BY DEBRIS.—The Marysville Appeal has information from Cottonwood, Shasta county, that recent freshets have washed into the Sacramento river vast quantities of hydraulic-mining debris which had accumulated in the creeks and gulches. Quite a number of farmers along Cottonwood creek are at work trying to protect their lands from damage by debris. The Chinese are said to control nearly all the mines on Roaring river and the north and middle forks of the Cottonwood. It is in that district that hydraulic-mining operations have recently been enjoined in a suit brought by the United States in Judge Sawyer's court at San Francisco.

SACRAMENTO CO. POMONA GRANGE.—Mrs. Dee D. Hull, Secretary of Sacramento Co. Pomona Grange, writes us to announce that they will meet March 30th, at 1 P. M., in Grangers' hall, Tenth and K streets, Sacramento. All members are requested to be present, as business of importance will come before the meeting.

Models for Grange Discussion.

MESSRS. EDITORS:—I like innovation when there is a good reason for them. A person to be progressive must get out of the old familiar ruts and landmarks and strike out for something new and untried.

I have a profound regard for my grandfather and the manner in which he cut his hay and grain and took his grist to mill, and if we were not a progressive race and did not live in the day of innovations we should be practicing the same methods still.

It is only within the last few weeks that I thought it practical to have models for discussion in the Grange. I supposed we had to give our subjects as we have heretofore, and discuss them from an imaginary point of view. I believe it easier and more practical to have models to assist the mind in concentrating on the subject in hand whenever practicable.

When Bro. Welty brought into the Grange the roots and trunk of a fruit tree that had died from the effects of bad planting and bad treatment, I thought it one of the freaks of the eccentric brother, and was about to poke fun at his original ideas. As I took a good look at the cramped roots and the earnest look of the brother, my sportive feelings turned into earnest thought.

The stump has been laid away in the ante-room to be brought out for future discussion, and I expect on that occasion to learn a good deal about how to plant and care for fruit trees.

By these frequent discussions we may gather knowledge that would take us years to obtain by experience. If the discussion of this model proves profitable I shall expect to see many more brought in, as the field of supply is almost inexhaustible.

These articles need not be confined to the brothers' side of the house alone, but can include the household and culinary department. Bring in your wheat and graham loaves of bread, your gilt-edged butter, preserved and dried fruits, etc.

The happiness and prosperity of many a household has depended on the anti-dyspeptic bread that is made therein.

It is one of the highest accomplishments that a housekeeper can boast of—the art of making good bread. Sisters, bring in some of your snowy light bread and tell how it is done. I am willing to act on the committee of testing and awarding. I believe we can create such an interest in the discussing of these numerous things that appertain to our interest, that nothing but the most urgent business will keep us away from the Grange meetings.

Will some of the Granges try it?

D. F.

For Oregon.

California Patrons should read the several notes published in our Oregon Department concerning the visitation of California Patrons to the State Grange of Oregon, which opens on the 28th of May next. Those who will go are invited to send their names to this office.

The regular fare (unlimited) to Salem or Portland is \$25, and berths in the sleeping-car \$5 each. We expect to be able to announce excursion rates, perhaps one-third off, within a short time.

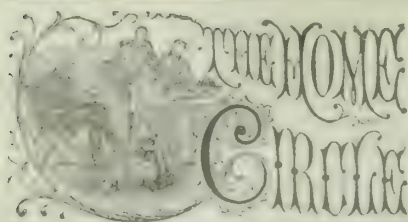
It must be gratifying to the hearts of all our Patrons to see the generous interest and kindly feeling manifested toward Californians by our Oregon neighbors. It is for the Grange to break down the foolish and injurious prejudices that have heretofore existed between the two States. It must be done away with for the mutual benefit of both communities.

PAST MASTER COULTER gave us the pleasure of a visit at our home, on his way to San Jose, last Friday night. We learned much that interested us in regard to the work of the Legislative Committee during the last session. Bro. Coulter visited the State Capital twice, and will have something to say in the Deputies' meeting concerning the matter. He is quite sure that the information gained by the experience of the committee will prove of much importance to farmers and other industrial, well-meaning people of our State.

WORTHY OVERSEER DAVIS, at last accounts, had spent some days at Los Angeles and Pasadena, and was to visit Tulare this week. He will tarry awhile at Oakland with his brother, ex-Mayor Davis, and visit San Francisco. We hope he will reach his home at Santa Rosa decidedly improved.

We hope before long to have something encouraging and satisfactory to announce in regard to the coming session of the National Grange in California. We shall not be idle, at any rate, until the matter is settled.

BROTHER O. J. CRESSEY has gone to Creston, San Luis Obispo county, and will return by way of Tulare valley.



Songs in the Night.

(Psalm xlii : 8.)

[Written for the Rural Press by Mrs. M. F. ROWE.]

Did you hear it sweetly singing
In the night,
When from summer skies had faded
All the light?
Did you hear it in the darkness
Gladly raise
Unto God, the heavenly Father,
Notes of praise?

'Twas a sweeter song than ever
Daylight heard,
That you sang among the shadows,
Little bird.

'Twas a song of trust, outpouring
All alone;
As so patiently you waited
For the dawn.

So, unto His own, God giveth
Songs at night,
When from sunlit skies have faded
All the light;
When the shades of darkness gather
O'er the soul,
When storms rage, and dashing billows
Round us roll.

And the songs to Him are sweetest
That arise
From the night of chastened sorrow
To the skies;
When we sing, altho' we see not,
But can trust
Our dear Father's love, well knowing
He is just.

Let us, then, amid life's shadows
Ever sing;
E'en from broken harps, some music
We may bring;
Let us sing until the shadows
Flee away,
At the dawning of the morn
Of perfect day.

Alameda.

Ruth.

[Written for the Rural Press by FANNIE ISABEL STERRICK.]

"And this is home!"

Ruth Delano gazed about her with a mingled feeling of wonder, joy and disappointment. Three thousand miles had she traveled across the continent to reach the home her husband had prepared for her, and this was what she found:

A lonely ranch among the foothills of Southern California with a plain log cabin for a home. Not a vestige of a plant or flower around it, not a suggestion of comfort or beauty within it—the hills stretching brown and bare under the July sun and not a shade tree in sight.

"One might know there had never been a woman near this place," sighed Ruth, her eyes slowly filling with tears. It seemed so comfortless and barren after leaving her mother's old-fashioned farmhouse in Maine, full to overflowing with inviting, comfortable things and surrounded with flower-gardens and orchards and where every nook and corner suggested the deft hands and delicate fancies of women. She felt her very heart sinking within her. Then, seeing the eyes of her husband fixed upon her, she forced back the tears.

Had she not said like the Ruth of old, "Whither thou goest, I will go; and whither thou lodgest I will lodge?"

Would any place, no matter how full of comfort it might be, ever be home without him? Had she and her baby Ruth not wept tears of joy when the letter came telling them that papa was coming from California to take them home? and had not every foot of the way been a joy to think she was once more with him and that they were to have a home?

She stroked the hand of her husband who held their little Ruthie in his arms, smiling through her tears.

"I know, dear, it is a new country," she said cheerfully, "and you have done the best you could."

It was the true wifely spirit, and in his heart he blessed the true woman who said it.

"All of the ranches look kind of desolate," he said, "when there's no one but men about; but now we've got a little woman here, things will soon be looking different."

Inside of the house she found everything neat at least, and that was a great comfort to her, and if the parlor was barren-looking with no carpet upon it, the kitchen was full of contrivances which women like, and she knew that John had thought of them for her.

After supper they sat down on the little porch in front of the cabin to talk of plans for future work. It was just at sunset, and as Ruth sat placidly looking at the view in front of her—which, after all, was a fine one, taking in a glimpse of the blue Pacific and a background of purple mountains—she began to lose that undertone of homesickness which had so marred her home-coming. She thought how

beautiful a home might really be under the shadow of the lifted peaks, and she resolved that with John's help she would make hers one to be proud of. As if in answer to her thought, John went into the house and returned in a moment laden with two parcels which he dropped into her lap.

"There, Ruth," he said, "you can't guess what those are, can you?"

"I am afraid not," Ruth said, eying the mysterious looking packages wonderingly.

"Well, you know the house isn't very beautiful yet," John said, his good face fairly shining with the little secret he had in store for her; "but I guess you'll find something in each one of those parcels that will help you beautify it."

What could he mean? Ruth took up the lighter but larger one first. To her surprise it was full of garden seeds, small packages of every kind almost she could think of.

"Well, how lovely!" she said. "Now we shall raise all the vegetables we need, and our garden will rival dear mother's at home."

"Yes," John replied, "and go ahead of it; for California beats the world for flowers, and your garden will be just as lovely in winter as in summer. There are twenty varieties of roses alone among that collection of seeds."

"Isn't it wonderful to think of?" cried Ruth, as delighted as a child over her treasures. "And what can be in here?" she continued as she opened the second parcel. "Wonders will never cease!" she exclaimed the next moment as she poured a whole bag of silver into her lap. "And what is this for?"

"To buy your parlor furniture," he replied, laughing at her amazement.

"Honest!" She looked at him, her brown eyes sparkling.

"It is for Mrs. Delano to do with as she pleases," he said. "I saved the money to furnish the cabin with, and thought to have it fixed up before you came, but concluded on second thought that you could do better than I; so there's the money. Buy what you please and fix up the place to suit yourself."

"Well, if you ain't the best John in the whole country," Ruth said, almost laughing and crying in the same breath. How could she ever be homesick again?

And that night, instead of crying herself to sleep as she had thought that afternoon to do, she lay awake from very joy thinking of the pretty things she would buy and make for the cabin, and imagining how picturesque it would look covered with Lady Banks roses, and how sweet the violet-beds would be in the spring-time.

And so the very next day she set the hired man to work laying off a garden, and all that week and the next she spent her spare time in digging and hoeing and spading. The following week John took her to the nearest town and she selected the various articles she desired for the house. She managed to furnish it quite comfortably, and under her deft fingers all things began to wear a homelike air. The place lost its barren and shiftless look, and even the dog, Harold, seemed to feel the change. He no longer wandered aimlessly about as though seeking a comfortable spot, but went to sleep a picture of contentment on one of the soft rugs in the sitting-room, keeping one zealous eye always half open upon his playmate, Ruthie.

The months sped by, in spite of all the hardships she had to endure—for life is hard for a woman in a new country—on light wings for Ruth. She made the best of all her trials and was as sweet and contented as she had been in the fair home they had once owned and lost. Though often her limbs ached and her head was weary with the weight of work which fell to her share, she never complained. Not once did she grow fretful or reproach her husband for taking her so far away from all that she loved.

"He is doing the best he can," she always said to herself, "and what would a palace be without his love? Besides, how much I have got to be grateful for." And somehow the remembrance of their first evening in the log cabin would always bring the tears to her eyes. It was such a real proof of his love and thoughtfulness for her.

When the next spring lengthened into the summer, and her sweet face began to wear a tired look that he did not like to see, he came to her one evening, saying gravely:

"Ruth, pack your trunk to-night. To-morrow I want to take you with me to San Diego. Important business calls me there, and you and Ruthie both need a change."

"But how can you leave the ranch," Ruth asked, "just now, when you are most needed?"

"Oh, Ruthie will take charge of the place and the men will work for him as well as for me."

If Ruth had noticed him just then very carefully, she might have seen a twinkle in his eye that would have made her suspicious as to this "business trip" to San Diego; but like a dutiful wife she packed up and asked no foolish questions.

When they reached San Diego, much to her surprise her husband did not go to a hotel. He gave the coachman some directions and they were driven to an elegant looking house in the suburbs.

"Why, I didn't know you had friends here!" Ruth exclaimed in surprise.

"Oh, yes," said John. "I have a number of them. This is the home of the best friend I have in the world."

"Why!" John nearly took her breath away. She thought of her shabby traveling dress and Ruthie's shabbier cloak with dismay, but she made up her mind to make the best of it for

John's sake, anyway. A lady could always be a lady, no matter how she was dressed.

A neat Chinaman opened the door and ushered them into a handsome reception-room. The house was beautiful inside, and everything was new and of the latest fashion. Ruth sank into a finely upholstered easy-chair with a feeling of momentary content. For a moment she almost wished she might be the possessor of such a home, and then she put aside the envious wish.

"Make yourself at home, dear," John said, "while I seek the master of the house. He is probably in his study. I will return when I have spoken with him privately. I know he will be delighted to know you are here and welcome you."

"How strange John never told me of this friend of his," Ruth said to herself as she amused herself looking at the handsome engravings on the table near her.

Presently he returned, but not as she expected with the master of the house, whom she was feeling a little in awe of.

"Where is he?" she asked.

"Here."

"Here? Why, John, have you lost your mind? There is no one with you. You and I are alone." She began to look frightened. What if John had really lost his senses! He had certainly acted queer about this San Diego trip.

To her further amazement, he burst into a loud laugh, and taking a stand in the middle of the floor, said with a polite bow:

"Dear Mrs. Delano, allow me to introduce you to the master of this house, John De'ano, Esq., your humble servant. I am monarch of all I survey."

"John, you are surely going mad and I with you! For heaven's sake," she entreated, "tell me what you mean!"

"I'll tell you what I mean, little wife," he said. "I mean that I came to San Diego last year during the land boom, went into the real-estate business and cleared a small fortune. This is your home, and all that is in it belongs to Ruth and John Delano. The ranch and the log cabin was simply a trial of your love. I wanted to find out what kind of stuff my wife was made of."

"And did you find out?" she asked of him, woman-like, not knowing whether to laugh or cry over this great joy.

"Indeed I did. She was weighed in the balance and not found wanting. I know now that her love was strong enough to brave all trials for me. Henceforth she shall be queen of my prosperity."

"It was a very pretty little drama you chose to have me take the principal part in," she said; "but I forgive you and I am satisfied if you are."

"Completely," he answered with a lover's kiss.

"Do you know, dear John," she whispered that night as she held Ruthie up for her papa's good night kiss, "that I doubt if I can ever be as happy anywhere as I was in that little log cabin of ours in spite of all the hard work I did. Love never seemed before such a sweet compensation for all of life's trials."

"Well, if that isn't just like a woman!" laughed her husband. "Like Lot's wife, forever looking back. Give her heaven and two to one she'll be sorry she ever left the earth."

Ruth only smiled and held her peace. She knew that he too would ever hold their log-cabin days in sweet and sacred remembrance.

Tossing the Baby.

The throwing a baby into the air and catching him again is always a risky practice—certain though the tosser may be of his quickness of eye and sureness of hand. A sudden and unexpected movement of the child in his mid-air flight may result in a cruel fall.

A gay young father snatched up his baby boy one morning and tossed him to the ceiling. Twice the little fellow went flying through the air and came down safely into the waiting arms. The third time the excited child gave a spring of delight as his father's hands released him, plunged forward, and, pitching over the father's shoulder, fell head downward to the floor. When the poor baby came out of the stupor in which he lay for hours it was found that, although no bones had been broken, the brain had sustained an injury that would, in all probability, render the child an imbecile.

Another baby snatched from the floor and tossed into the air received a fatal wound in the top of the head from the pointed ornament of a chandelier. Still another child slipped between the father's hands as he caught her in her downward flight, and although his frenzied grasp on the baby's arm saved her from falling to the ground, it wrenched muscles and sinews so cruelly that the girl's arm was shrunken and practically useless to her all her life. These are extreme cases, but the fact of their occurring at all should be enough to warn one from the habit of relinquishing one's hold on a child when tossing it.—*Harper's Bazar.*

ROUGH ON THE OFFICER.—A southern exchange avers that a bill was lately introduced into the Nebraska Legislature forbidding the "firing of any pistol, revolver, shotgun, rifle or any firearms whatsoever on any public road or highway, or within 60 yards of such public road or highway, except to destroy some wild, ferocious and dangerous beast, or an officer in the discharge of his duty."

Birds.

[Written for the Rural Press by M. E. T.]

Their young ones they go forth, and return not unto them.—Job, xxx: 5.

The nest is overcrowded, they soon must fly;
They're growing full restless, this precious brood;
They look abroad wistfully, climbing up high,
And shake their young wings in a threatening mood.

'Tis the nature, I've heard,
Of other young creatures as well as a bird.

They'll get many a fall, I fain would save;
There are enemies lying in wait for them;
Yet I cannot protect the life I gave,
I can only entreat dumb fate for them,
And hope, while I sigh,
With many a fear, while they are learning to fly.

Will they heed the lessons I've taught them here?
To my warning notes, when there's danger ahead,
Will they hearken? and turn from the tempter's snare,
Or give to evil their lives instead,
And my hopes be lost,
And worse than vain, all the care they've cost?

My birdlings have flown. Come, welcome rest!
I am faded and brown from worry and care,
Yet I'm thoughtless alike of robe or crest;
My heart must have flown with my young ones fair.
What is left at best?
Just a worn-out life and an empty nest.

Watsonville, Cal.

The Hermit Thrush.

Every one knows the hermit and wood thrushes are the best of the musical family, but not so many have compared their songs, since they do not generally occur in the same region. The hermit is apt to be a silent, unobtrusive migrant in the wood-thrush's country, bound for more northern latitudes. Here, in western New York, however, both live in the same wood; you may often hear both at once. Both are glorious singers, both are serene spirits dwelling in unspoiled retreats, far from the strife and problems of the world; their pure melodies are the overflowing of a fountain of content and peace, and we who listen can hardly fail to feel something of their perennial calm.

The thrushes wait apparently for an inspiration, both having other notes for every-day use, the mellow *peo* of the wood thrush and the sharp *pe-ark* of the hermit; knowing only their true song, you would never imagine such squealers to be of the same or any related species. The notion which crops out everywhere in prose and poetry that their music belongs especially to the sunset hour, has little foundation; they sing at all times, in the early dawn, at noon when most other birds are silent, sometimes with the full moon at the meridian, not the crooning of a sleepy bird but loud and ringing. The song of the hermit gives the impression of the quick revolution of a spiral on its axis. *O, leo, leo, leo*, he seems to say, *A, leo, leo, leo, E, lei, lei, lei*, etc., the *o's* low, rich and full, the others pitched higher till the compass of his voice is reached and passed, the song ending in a sharp squeak sometimes. He is not likely to sing in your presence, but if he does you will be delighted with his perfect ease of delivery. He will walk about on a log, looking straight before him or down at the ground, turning this way or that, not with the air of one addressing the four quarters of the earth in turn, but as one whose position is perfectly indifferent. His strain seems borne on his ordinary breath, a tiny ripple runs across his throat, but you cannot be sure that he opens his beak at all.

Going leisurely through a pleasant woodland, one day, picking the first flowers of the large white *Viola canadensis*, and finding them deliciously fragrant, contrary to my notion that only the later ones were so, I came upon a hermit catobing his dinner amid the dead leaves, running and jumping after his insect prey, carrying a great leaf in his mouth now and then, as if in play, pausing for a moment and seeming to listen intently. Yes, I could hear it, too; the melody of a distant thrush faintly audible above the gentle stirring of the breeze in the tree tops. Silence ensued, my bird went on catching the insects hidden in the leaves, and my hope that he would prove a singer and answer his rival, if thrushes ever have rivals, was not realized. Then I said, this bird is a female who listens to the song of her mate. But I soon found the ventriloquist here in the leaves was the only thrush in the woods. I could see the light ripple run over his breast as he sang his whispered song, but it was difficult even then to doubt the existence of the far-away songster, so perfect was the little conjurer's art!—*Vick's Magazine for March.*

What She Could Do.

A young Norwegian girl, who had landed but two days before at Castle Garden, lately got a situation in a New York family. In trying to acquaint the girl with her duties, the head of the family was surprised at the lump of unsophisticated innocence he had encountered. Finally, in despair, he asked his acquisition:

"What can you do?"

Her face brightened up instantly, and the flaxen-haired native of the land of the midnight sun replied:

"I can milk reindeer."

YOUNG FOLKS' COLUMN.

Tangles.

Enigmatic Snarls, Hard and Easy, for Young People of all Ages to Untangle.

I.—STRANGE NUMBERS.

Some people honestly believe
That figures never lie;
If not, they sometimes do deceive
Even a puzzler's eye.
There are two numbers in my mind—
We'll call them A and B—
In half a dozen forms combined
That seem not to agree.
Two-thirds of B just equals A,
Two-thirds of A is B;
Yet two-thirds of A we surely may
Prove half of B, you'll see.
One-fourth of B—one-third of A—
They surely are the same;
And if one takes A's head away
It leaves the other's name.
Not only head but body take
(I thus rend'ring it quite blind),
Its value is increased by four,
And, oddly, you will find
'Tis just precisely what is left
When B's decapitated;
Add this to that 'tis just five more
Than A and B. 'Tis stated
That, looking closely, you will find
B is in any number;
That A and B may be combined—
I hesitate to cumber
My simple verse with all their forms:
Evil; a twining plant;
A fox's cub; a grasping tool;
Hotel; surname; I can't
Continue further to pursue
These most uncertain numbers,
I delegate the search to you,
While I seek happy slumbers.

HAPPY THOUGHT.

II.—A PRIMER LESSON.

[Fill the blanks with different forms of the same word as designated by numbers.]

What do you (1) —?
I (1) — only a (2) — now, but an hour ago I
(2) — a tramp.
Do you think the tramp (2) — the (2) —?
I do not know. Perhaps the tramp (2) — the
(2) —, but I do not think he was ever (3) — to
(2) — with the (2) —.
Now tell what you would rather do than (2) —
with the (2) —.
I would rather (1) — you (2) — with the (2) —
—; or play (1-2) — with little brother Tom; or
hear my big sister Sue say her lesson about (1) —,
(2) —, (3) —. E. W. HARRIS.

III.—AN ANAGRAM.

My hero, "Gus Mohr," an unfortunate lad,
Was reared in a cane-brake and went to the b'd.
He was thru't through a mill and completely un-
jointed.
And his blood, it is said, many pancakes anointed.
E. W. K.

IV.—WORD TRANSMUTATION.

[Each "move" consists in changing one letter, furnishing a substitute bearing the same relation to the other letters in the word, and still giving a legitimate word. Example: Change Sin to Woe in three moves. Answer—Sin, son, won, woe.]

1. Change Man to Boy in three moves.
2. Change Wife to Aunt in five moves.
3. Change Star to Moon in five moves.
4. Change Good to Vile in five moves.
5. Change Less to More in four moves.
6. Change Corn to Meal in four moves.
7. Change Home to Jail in five moves.

ROBERT.

V.—A NUMERICAL.

Tangle of thread in 7, 5, 6 fingers,
Pucker on forehead fair,
Patiently Nan o'er the total lingers,
With such a mature little air.

10, 3, 8, 9, 10 to make lace,
L—arning to 1 to 7 is she;
But smooth the wrinkles from dimpled face,
For frowns and dimples do not agree.

A. L.

VI.—A RIDDLE.

I have many keys, yet I open no door;
Perhaps you have heard me and seen me before.

GRACE.

Answers will be published in two weeks.

That Dreadful Boy.

[Written for the Rural Press by ALICE KINGSBURY COOLBY.]

"Oh, how I wish somebody would send me a valentine, a real boughten one, with stamp and the postman's ring. I never had one, sister, and you get so many."

"Well, deary, who knows but this time St. Valentine will be kinder, and you might get a lapful."

"Yes, you might, for you're so pretty, and everybody likes you and smiles when they see you; but they stop when they notice me and say all sorts of disagreeable, pitying words. I sometimes think I oughtn't to have been born. I'm just like that black cloud there, that throws a shadow over everything and shuts out the pretty sunshine—they all stop laughing and playing when I come near."

"Oh, darling, how can you think so? Don't I love you, and mamma, and—and—good Mr. Alfred? and don't we think you the dearest, sweetest child that ever breathed?" and the

bright, beautiful girl caught the poor little one in a loving embrace.

"Yes, you all love me, but it's like I told you with the others."

The doorbell rang, and the postman handed in one, two, three, four—oh, a great handful of dainty envelopes to the pretty Lois.

"Not one for me, Mr. Postman? I wish you would bring me one."

There were several little boys and girls near the door, staring at the group, as only children can. They evidently heard what she said, for they turned away tittering.

Edwina admired all the pretty valentines, and thought her sister the handsomest and most fortunate girl in the city.

In the afternoon, "ring, ring," the postman's bell sounded again. Edwina was at the door first.

"Ah, Mr. Postman, have you brought me just one valentine this time?"

He smiled as he handed the eager little thing a dainty missive and something in a coarse yellow envelope.

"Two this time, Missy."

She ran to her sister and hid her head in her lap.

"I'm—I'm so happy I don't like to open them, but keep 'em and think and think how pretty they will be."

"Ah! little puss, open them, do. I want to see what taste your little beau has," said Lois.

Edwina opened the pretty one first, and was very careful not to tear the lace envelope.

"Oh! o—h! isn't it beau-ti-ful!"

Then came the guessing as to who sent it. All the little boys she had ever spoken to or knew by name were mentioned, but they were both still undecided when Edwina opened the other envelope. She gave one startled look and almost screamed.

"O sister!" The paper dropped from her hand, and she fell on her knees and buried her face in Lois' lap in an agony of tears.

"What is it? oh, what is it, Edwina dear?" "Oh! cruel, cruel!" she sobbed. "What have I ever done to them? How could they?"

Lois picked up the offending paper.

"Ah! poor darling!" she cried, crushing the valentine and stroking and kissing the little one's hair.

"O sister! am I—am I—such an ugly—such a frightful creature as that? Do they think of me as 'old hunchy,' and—and—have I that frightful thing on my back?"

"No, no, darling. Oh, how could anybody be so cruel?"

"Read it—see!" and she took it out of Lois' hand and read:

"O'd hunchy, old hunchy,
Don't come near to me;
Old hunchy, old hunchy,
From you children flee."

"Is that the reason? O sister! sister!" She cried so long and bitterly that Lois was frightened. She tried all she could to soothe her, promised her a new doll or anything she wanted, but all her kindness was of no avail.

"Oh! I wish I was dead! I wish I was dead!" So she moaned till she fell asleep, and Lois put her gently on the bed and covered her up with a warm shawl.

For days poor little Edwina lay between life and death. Somehow the children had found out why the doctor's buggy was there so often, and also what caused the poor little girl's illness, and they all felt so sorry.

One boy particularly seemed to haunt the place, inquiring of every one who left the house: "Don't you think she is a little better?"

If they shook their heads, he would bite his lips and turn away.

Poor little Edwina was very, very ill. She would shriek when the bell rang: "Ah! don't let the postman in; he'll bring me a terrible, terrible picture! Keep him out!" etc. Then the bell was muffled, and a notice put on the door begging the children not to shout near the house.

The watching boy became thin and pale; he, too, could neither eat nor sleep.

"I must see her or I shall die of remorse," he cried. So, going to the back door, he begged to see the sick girl for a moment.

"Oh, please, please, Miss Lois."

Edwina was not delirious to-day, so Lois hesitated.

"Please. I want to ask her pardon. Oh! if she should die, I—I should kill myself."

With children it is only a step from a devil to an angel. Lois understood instantly. She shrank from the boy instinctively.

"Oh! don't, Miss Lois. If you only knew! Let me see her; it may make her better."

"For a moment, then," she said, feeling sorry for the boy's terrible grief, and wondering how he could have ever done such a cruel thing.

"Edwina, here's a little boy who has something to tell you."

"Oh! I'm so, so sorry, but we heard you say you wanted a valentine; we thought it would be a joke. I—I did not think then how cruel it was. Oh! I would give one of my hands if I had not had anything to do with it."

Edwina looked at him.

"Did I—did I frighten you all so much?"

"No, no, no; we thought no one minded comies. We all like you. I—I sent you the pretty one all by myself. Please, please forgive me."

He knelt down by her bed and wet her little hand with tears.

"It—it hurt me so," she sighed.

"I know it now; but oh! get well, and I'll spend all my life in trying to make you happy."

"Am I so hideous?"

"No, no; you are the prettiest girl around, and the others are so sorry that they have bought a big doll for you and are going to bring it and have a party for you when you get well. Oh! forgive us all, and we will never, never be cruel to any one again."

Edwina smiled and laid her hand upon his head.

"I do," she said softly.

From that day she began to mend, and, strange to say, her back seemed to straighten and she grew taller. Everything happened as Robert had said—the doll, the party, and all the loving, remorseful children. She was always greeted with a smile and kind words now, and invited to join their games, and Robert was her constant companion, incessantly devising something new for her amusement or doing some little act of kindness that would give her happiness.

He was never rough or unkind to any one now, and thought only of making others happy. He was a blessing to his whole neighborhood.

So they grew up together, and when their happiest day came, Edwina said:

"It—it did hurt terribly, but if it had not been for that ugly valentine, I should never have known you, dear."

Robert bowed his head in shame, then looked into her bright eyes.

"Think of it that way, darling; then my wound may heal."

And Lois blessed them both.

Dr. Shradys Best Fee.

Dr. George F. Shradys of New York City, during one of his frequent "runs" to Ulster county, says the Kingston (N. Y.) Freeman, related a pathetic little incident that came under his knowledge a year or so ago. The doctor was in the country enjoying a rest. During a ramble one day he noticed a sickly looking boy of about eight years of age resting by the roadside. Near the child and gazing tenderly at him was a sweet-faced old lady, whom he called "Granny." The child touched his cap politely to the doctor, and the little, wan face lit up at a few kindly remarks that were made by the stranger. A day or two afterward the doctor was told that an old lady and a little boy wished to see him.

"I could do nothing to stop his coming," explained the woman. "He says over an' over since the day he saw you that you can make him well an' like other boys. He gives me no peace night or day, an' so I have taken the liberty of bringing him to you to cure."

"The faith of the old lady and her little grandchild was so touching," said the doctor, "that I resolved to do my very best to effect a cure, and in time the youngster was running about, strong and well as his companions." Last Thanksgiving Day a home-made box was delivered by express at Dr Shradys' home in New York City. The box contained a turkey and a little note, written in a boyish hand, which said:

"dear doctor this is from the boy what you made well I know the turkey is young and tender for I raised him from the egg myself."

"I have often received munificent fees from grateful patients that my skill has helped relieve," said the doctor, "but I was never more touched by a gift in all my professional experience than when that little country chap's turkey in the rough little box with the words 'expresses all paid' written on every side, was delivered to me."—Exchange.

GOOD HEALTH.

CELERY AS A CURE.—Celery is the latest cure for rheumatism, says an Eastern exchange. It is asserted that the disease is impossible if the vegetable be freely eaten. The fact that it is so generally put on the table raw prevents its therapeutic powers from being known. The celery should be cut into bits, boiled in water until soft and the water drunk by the patient. Put new milk, with a little flour and nutmeg, into a saucepan with the boiled celery, serve it warm, with pieces of toast, eat it with potatoes, and the painful ailment will soon yield. Such is the declaration of a physician who has again and again tried the experiment and with uniform success. He adds that cold or damp never produces but simply develops the disease, of which acid blood is the primary and sustaining cause, and that while the blood is alkaline there can be neither rheumatism nor gout.

THE SOUL OF PHARMACOPOEIA.—The Medical Record prints the following list of drugs as representing the soul of pharmacopoeia: Opium, mercury, iodides, quinine, chloroform, ether, sulphate of magnesia, salicylic acid, aloes, alcohol bromides, iron, chloral, castor oil, digitalis, arsenic, colchicum, ipecac, aconite, strychnia, cocaine, ergot, bicarbonate of potash, mineral acids, and nitrates. It adds: "Pepsin is a widely used remedy, but it can hardly be regarded as a drug, and it is very possible that, on the whole, it does more harm than good by pandering to a weakness rather than attacking its roots. Iron is another remedy whose value, except as a mineral food, is problematical. Naturally, the best 25 drugs will differ somewhat in accordance with climate and prevalent disease, but we should say that the foregoing list was a fairly correct one."

A MORNING DRAUGHT.—Add the beaten yolks of three eggs to two tablespoonfuls of

powdered white sugar, three cloves, the rind of half a lemon and half a pint of brandy. Pour over it a quart of new warm milk, stirring rapidly, and serve immediately. This is recommended for those who live in malarial districts and for delicate persons.

TWO WAYS OF TREATMENT.—When a person gets a sprained ankle, the physician usually has the ankle painted with iodine and the patient kept in the house for a week or ten days. A physician who treats such an accident in a different way relates a case as follows: "I went over to a grocery store and got a pound of common soda. Then I got a pot of boiling water, put it in a tub and put the soda into it. Then I got some woolen rags, dipped them in the solution and wrapped them around the injured member. I wrapped dry cloths around on the outside, so that the steam could do its work thoroughly. I changed the bandages every 15 minutes and had his nurse do the same when I went home that night. When I called the next day my patient was all right. It would have taken two weeks for that iodine to have done its work. A peculiarity about this treatment is that no swelling remains and that the flesh is not even discolored."

A MEDICAL USE FOR THE PHONOGRAPH.—Dr. J. M. Bleyer, in a communication to the Medical Record, explains another use for the phonograph, to wit: teaching, recording, reproducing and demonstrating the physical signs or sounds of the normal as well as of the diseased condition of the heart and lungs. Like the great Lick telescope in astronomy, the phonograph in medicine has opened a new field of investigation. He says: "While the deepest tone that our ears are capable of recognizing is one containing 16 vibrations a second, the phonograph will record 10 vibrations or less, and can then raise the pitch until we hear a reproduction from them. Similarly, vibrations above the highest rate audible to the ear can be recorded on the phonograph, and then reproduced by lowering the pitch until we actually hear the record of those inaudible pulsations."

DOMESTIC ECONOMY.

Carp Made Palatable.

A writer in Forest and Stream, who professes to be somewhat of a connoisseur in table matters, has a good word for the carp. He avers that although the flesh of that fish when recently taken from a warm pond is redolent of the odor of various algae and diatoms, the particular flavor rapidly disappears if the fish is put down the well for a few days before being killed.

It is not half so much trouble, he says, to sweeten a school of carp as it is to fatten one hog, and the profits of the former work may far exceed those of the latter.

"The carp properly prepared, boiled and served with butter sauce and small boiled potatoes, is a luxurious addition to our table; and this expression of sentiment on my part is not original. It may be heard in any first-class restaurant in northern Europe."

THIN BISCUIT.—One quart of flour, one tablespoon of lard and butter mixed, and one tablespoon of salt; make into a stiff paste, with cold water; beat dough until it blisters, roll thin, prick with a fork and bake quickly.

BUTTERMILK MUFFINS.—Beat hard two eggs into a quart of buttermilk, and stir in flour to make a thick batter (about one quart); stir in a teaspoonful of salt, add the same of soda; bake in a hot oven in well-greased tins. Pull open with the fingers and butter.

COLD SLAW.—Shave off a hard white head of cabbage and season with the following dressing: One cup of cream, 1½ teaspoons of mustard, one teaspoon of salt, one teaspoon of butter, one tablespoon of sugar and yolk of one egg beaten light. When boiled, add one cup of strong vinegar, stir well and pour over the cabbage.

CRUMB PUDDING.—One quart of sweet milk, one pint of bread crumbs, three-quarters of a cup of sugar, yolks of four eggs, butter size of an egg, flavor with lemon; bake in a jelly oven; when done, spread over a layer of jelly, whip the whites of the eggs to a froth, add one cup of powdered sugar, pour over the jelly and bake a light brown. Serve cold.

CHICKEN CUTLETS.—Trim the remains of a cold roast or a boiled fowl into nice cutlets. Cut pieces of bread of the same size and shape. Fry the bread to a pale brown in butter, and put in the warming oven, with door open, to keep warm. Dip the cutlets in melted butter, mixed with the beaten yolk of an egg; roll in cracker dust, season with salt and pepper, and fry for five minutes; serve each cutlet on a piece of the bread.

BAKED INDIAN PUDDING.—Boil one quart of milk, keeping out one small cupful; mix this with five even tablespoonfuls of Indian meal, stir it into the milk, and boil for ten minutes. Take the kettle from the fire and melt into the mush two ounces of butter, stirring it well in. Then stir in one teaspoonful of brown sugar, one teaspoonful of molasses, half a nutmeg (grated), one tablespoonful of ground cinnamon, half a teaspoonful of ground cloves, and four eggs, beaten very light. Bake two hours.



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SAN FRANCISCO:

Saturday, March 30, 1889.

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[NEW THIS WEEK.]

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Agricultural Implements—P. P. Mast & Co.
Wagons and Carriages—Studebaker Bros. Mfg. Co.
Mowers—Judson Mfg. Co.
Agricultural Implements—Hawley Bros. Hardware Co.
Real Estate—Bovee, Toy & Co.
Situation Wanted—"W." E. St. Portland, Or.
Pumps—P. C. Lewis, Calkill, N. Y.
Books—H. M. Cameron, Oakland, Cal.
Meeting Notice—Thos. McConnell.
U. S. Protective Bureau.
Trees—John Bidwell, Chico, Cal.
Poultry—E. H. Freeman, Santa Clara.
Cattle—Robertson & Co., Woking, Surrey, England.
Beet Seed—W. C. Damon, Napa, Cal.
Holstein Cattle—H. P. Mohr, Mt. Eden, Cal.
Nurseries—Fred C. Miles, Penryn, Cal.
Real Estate—S. H. Big and.
Poultry—O. J. Albee, Lawrence, Cal.

See Advertising Columns.

The Week.

As is natural and characteristically Californian, the public spirits have risen inversely proportionate to the soil-soaking by the recent glorious rains. Activity, confidence, in fact, almost exuberance, are at present filling the producing and mercantile mind and giving rise to facial expression full of Hogarth's lines and to language with all the effluence of spring poetry. It is better so. Even the prospective builder does not grumble at the advance in lumber, and the producer, as he looks over his rich, green grain-fields and blooming orchards, is consoled by the prospect of abundance, for the prophesied decline in market prices. The city, too, is enlivened and encouraged, and our advertising columns show which merchants are most

appreciative of the signs of the times and propose to furnish the farmers with the tools and supplies necessary in a year of great things. And the printer smiles, of course—who ever knew him to be otherwise than joyful?

County Displays at the State Fair.

The State Board of Agriculture has done wisely in providing for the full continuance of these excellent local collections at the coming State Fair. Whatever may be urged against the management of our fairs, and there is usually plenty of fault to find with them, there is one feature which has been grandly developed during the last few years which cannot be too highly praised, and that is the county-exhibit feature. The State Board of Agriculture has done wisely in advancing the sum of money to be awarded for premiums in this department to \$2500, the first premium to be \$500 and the balance to be awarded to various exhibits according to their relative excellence.

At the meeting of the State Board held in Sacramento March 20th, the following announcement concerning this year's county displays was prepared:

To those who may have charge of the exhibits, we would call their attention to the fact that these awards will be made for the most extensive, perfect and varied exhibit of farm products (exclusive of live-stock) exhibited as a county production. Thus it will be seen that it is to be wholly devoted to the products of the farms located in the county where the exhibit is made from, and does not include manufactured goods of any kind or character except those grown and raised in the county from whence the display comes.

Competition to be between counties only. That is to say, that the entire exhibit made by one county must compete against the entire exhibit of another county. The premium awarded to each county exhibit will be paid to the committee in charge of said exhibit.

Preparations for these displays should not be delayed. Where it is desired to solicit aid from county Boards of Supervisors this should be secured as early as possible, and systematic work begun immediately. Many regrets and many partial exhibits result from pick-up displays which are made up a week or two beforehand. We should like to see the counties begin at once to thoroughly systematize and divide the work, lay out something unique as a plan of exhibit, and then work up every detail of it. The day for multiplying plates of the same fruit in lines of military precision merely to cover a lot of shelving is passing away; so also is the heterogeneous throwing together of a lot of unnamed produce in semblance to the show platform of a fruit and vegetable store. Let us begin to have some style, some horticultural science in our exhibits. Throw out the duplicates. Scour the county for the greatest possible diversity, and then name the exhibits to the very best degree of accuracy possible. It takes money and time to get up such a display, but the reward is that such an exhibit is worth seeing when it is set up. Let this be the characteristic of this year's efforts.

The River and Harbor Commission.

Governor Waterman has signed Assembly bill 595, "An Act to provide for the appointment of an Examining Commission on Rivers and Harbors, defining their powers and duties, and prescribing their compensation." Under this law, according to the *Record-Union*, the Governor is required to appoint three competent engineers, in good standing in their profession, to be known and called the "Examining Commission of Rivers and Harbors," to hold office until January, 1891. This Commission is directed to make an examination of the condition of the San Joaquin and Sacramento rivers, to formulate some general plan for their improvement, and to make estimates on the cost of such work, with the view of bringing the whole matter before Congress, and securing from that body such large appropriations as will effect a betterment of our rivers as flood-carrying channels.

It is reported that the Governor has appointed State Engineer Wm. Ham. Hall and Mr. P. A. Humbert, civil engineer at the State dam and canal works at Folsom, as members of this Board, with the third member still to be provided. The work intrusted to the Commission is exceedingly important, and we expect that their labors will lay the foundation for a thorough and systematic improvement of these great arteries of the State.

The Belt Railway.

We notice that Mr. Sneath, who wrote a letter to the Rural recently, urging the importance of a railway line encircling the new water-front of San Francisco, is continuing his advocacy of this important public work in one of the city dailies. It is a matter which concerns, first of all, the city's prosperity, and we trust will receive the attention its importance should command.

It seems to us the lesson of recent years to San Franciscans should be that they must do everything possible to remove the expensive friction which now attends the handling of produce and merchandise in this city. To escape this, the loading of wheat ships and the storage of grain has already gone elsewhere, and the same course must be adopted so far as possible with other produce. San Francisco does not nearly hold the proportionate importance as a distributing point which she commanded a few years ago. Some of the changes in this respect are unavoidable and are incident to the multiplication of cross-country railway lines, which not only admit of direct carriage of produce to demand-points but also favor the building up of interior merchandise-supply points. Of course, merchants at these interior points, by securing terminal rates for the goods they import, and avoiding the cost of handling the goods where charges multiply, as they do in San Francisco, are able to underquote San Francisco merchants.

The same advantage pertains to local manufacturing, and Mr. Sneath well says:

To-day there are in this city many persons seeking employment who cannot find it. And again, there are millions of capital seeking permanent and profitable employment here in this city that has not been utilized; and we wonder how it is, with a harbor, location and climate unsurpassed, a market for a multitude of articles that we import, and could, perhaps, export, and all the skill, labor and money necessary, and yet, with all these natural and acquired advantages, we fail to keep step with the progress of the times as marked by the growth of other Western cities, that are much less favored by nature.

We have not yet learned that the railroad, telegraph, telephone and electricity are the great promoters of progress and civilization. A few years ago we were proud in having the finest fleet of clipper ships in the world at our wharves and in the harbor, loading with our precious golden wheat, which is the pride and glory of our State. To-day we occupy the humiliating position of being dependent upon a rival town to furnish enough wheat to ballast vessels that must complete their loading elsewhere, because they cannot find cargo here. The railroad and low-cost port charges have done this in competition with our high-cost methods of doing business.

Competition in manufactures comes from all portions of the world. Those situated most favorably as to economy of production and distribution are the successful ones. Distance is but a trifling obstacle to success in these days of railroads and cheap transportation.

The interior towns of this State are now manufacturing articles for export, by reason of superior facilities, at a much larger profit than can be realized by the manufacturers of this city. Their rails and the ship have been brought together.

These propositions seem so plain to us that we wonder the city capitalists and merchants do not seize upon the present occasion of water-front extension to secure the facilities needed.

Agricultural producers have of course a direct interest in this matter. The costly system of handling prevailing in this city must ultimately be paid for by the farmers either in the shape of less returns for their produce or higher prices for their supplies, or, in fact, in both these ways. But the agricultural producer will not always suffer, because if present conditions continue he will ship less and less to this city and more directly to consuming points, and he will purchase less and less in the metropolis and more in markets which by having better transportation facilities will undersell San Francisco. Thus, though the farmers have suffered for years through excessive port and marketing charges in San Francisco, and still suffer, the real hardship in the future will be visited upon property-owners in this city who may not realize the increased valuation and rents which they anticipate. The growth and relative importance of San Francisco may depend more directly upon present action in such measures of improvement as the Belt railway than most people now imagine.

WORK on the \$100,000 reservoir to be built by the State of Nevada on Carson river will soon be commenced.

The Convention in National City.

Elsewhere in this issue will be found an official announcement concerning the coming Fruit-Growers' Convention in National City, San Diego county. It is evident that the arrangements by the State Board of Horticulture will be very complete and comprehensive. It is also evident by our advices from the point of visitation that the wide-awake and enterprising citizens of National City and the adjacent city of San Diego propose that the convention shall be made memorable in the minds of delegates by the cordiality of their reception, the generosity of their hospitality and by the display of local produce which will be made for entertainment and instruction of visitors. Public meetings are being held and committees for all conceivable purposes have been set at work. We have had some personal experience in National City hospitality and welcome, and we can assure all who will make the trip thence in April that they will have to go far and live long if they desire to experience better treatment bestowed with more genuine cordiality.

Quite germane to the holding of the meeting comes the announcement that Governor Waterman has appointed Frank A. Kimball to succeed himself as member of the State Board of Horticulture. Mr. Kimball was appointed last fall to fill an unexpired term, and now enters upon a full course. He is a singularly fit man for the place, and not the least forcible evidence of the fact is the earnest appeal which his neighbors made for his reappointment. He may not be a prophet, but he is a fruit-grower not without honor in his own country.

LAST YEAR'S WHEAT.—The Statistician of the Department of Agriculture reports that during the year 1888 there were produced in this country 415,868,000 bushels of wheat, of which California raised 28,415,000 bushels; Oregon, 14,548; Nevada, 200,000; Arizona, 370,000; and Idaho, 1,252,000 bushels. The home consumption of the Pacific Coast was as follows: California, 7,112,750 bushels; Oregon, 5,091,800; Nevada, 160,000; Arizona, 92,500; and Idaho, 788,700 bushels. California shipped 21,338,250 bushels; Oregon, 9,456,200; Nevada, 40,000; Arizona, 66,000; and Idaho shipped 463,240 bushels.

PERSONAL.—We regret to learn of the resignation of Mr. S. E. Carrington from the managing editorship of the *Record-Union*. We have known Mr. Carrington and his work for a number of years, and admired him as a conscientious and gentlemanly journalist—a man who believes that the truth is good enough for anybody, and that true courtesy should prevail in all newspaper utterance. Such men are not too abundant, and we trust Mr. Carrington's retirement from the ranks will merely be long enough to give him a good rest.

SUNDAY PICNICS, ETC.—On account of widespread complaint about the Sunday picnics, the Southern Pacific and other railroad companies have decided to run no Sunday excursion trains from this city this summer. The S. P. Co. have also issued an order prohibiting the selling of liquor at their stations, except at the principal eating stations. They are considering the advisability of closing all the bars on the ferry-boats.

OLEOMARGARINE SEIZED.—A telegram from New Haven states that on Monday last the Collector of Internal Revenue seized 11,000 pounds of oleomargarine at the factory of N. J. Nathan & Co. of that city. The seizure was made by order of the Washington authorities, and neither the collector nor the firm understood the nature of the charges.

"BLACK KNOT" is reported to be devastating blue plum orchards in Ross county, Ohio, and the growers of Damson plums have already dug up and burned 50,000 dead trees.

Aid Your Publishers.

Now that general success for this season is so well assured, we hope to receive early remittances from old subscribers and to add many new ones to our list. We shall be grateful to present subscribers who will call the attention of new-comers, as well as any old neighbors, to the importance of reading our paper, and supporting a journal that does so much for its subscribers and the welfare of the whole community on this coast.

The Cornell Insectary.

So great is the interest in economic entomology in this State that we doubt not signs of progress in the same line in distant parts will also be welcome to Californians. The latest token of progress is to be found in the new facilities secured at Cornell University, Ithaca, New York, which include the building to be especially devoted to entomological work, of which an engraving is given on this page.

At the organization of the Experiment Station at Cornell University under the Hatch Law, it was decided to give considerable attention to entomological investigations, and the work in this field was assigned to Prof. J. Henry Comstock, who has long occupied the chair of entomology in Cornell University. Prof. Comstock, it will be remembered, was Government Entomologist for a time, and in such capacity visited California in 1880 and did pioneer work in determining several of our most destructive scale insects. After returning to his place at Cornell, he undertook the preparation of a text-book on elementary entomology which has been published in part, as has already been noted in the Rural Press.

In Bulletin No. 3 of the Cornell Agricultural Experiment Station there is an account by Prof.

mental entomology. This has been done; and a view of the exterior of the building is given in the engraving presented herewith.

After the erection of this laboratory it was desirable to designate it by a name which should distinguish it from the entomological laboratory of the University where instruction is given. As this is the first building of its kind, they were forced to coin a word, and have proposed the name *Insectary* for buildings arranged for keeping or raising living insects.

The Cornell Insectary consists of a two-story cottage with a conservatory attached. Upon the ground floor of the cottage there is a laboratory for the experimenter and his artist, a workshop, and a dark room for photographic purposes. In the second story are quarters for a janitor, and a storeroom for apparatus. In the basement there is a boiler for heating the building and the conservatory, conveniences for potting plants, a coal-cellar, and a coldroom for the storage of hibernating insects. The conservatory is essentially the same as if constructed for botanical purposes; the foundations are of stone and brick, and the superstructure of iron, wood and glass; it is supplied with slate plant-tables at the sides, and with wooden tables in the center. It is divided by a transverse partition into two rooms, each 30 feet in

QUERIES AND REPLIES.

Walnuts, Filberts and Chestnuts.

EDITORS PRESS:—Would fresh nuts of the English filbert grow if planted in the spring? Would you plant the nuts or the kernels? Where could I get fresh nuts for planting, and how much would they cost me by mail per hundred or per quart? What do California nurserymen charge for one-year-old seedlings by the dozen, or hundred, or thousand? Also, what do your nurserymen charge for fresh nuts of the American chestnut, and for yearling trees of the same? Also, what do they charge for fresh walnuts (trees and nuts) of the Proporturiens variety?—H. B. LUCE, Hillsboro, Oregon.

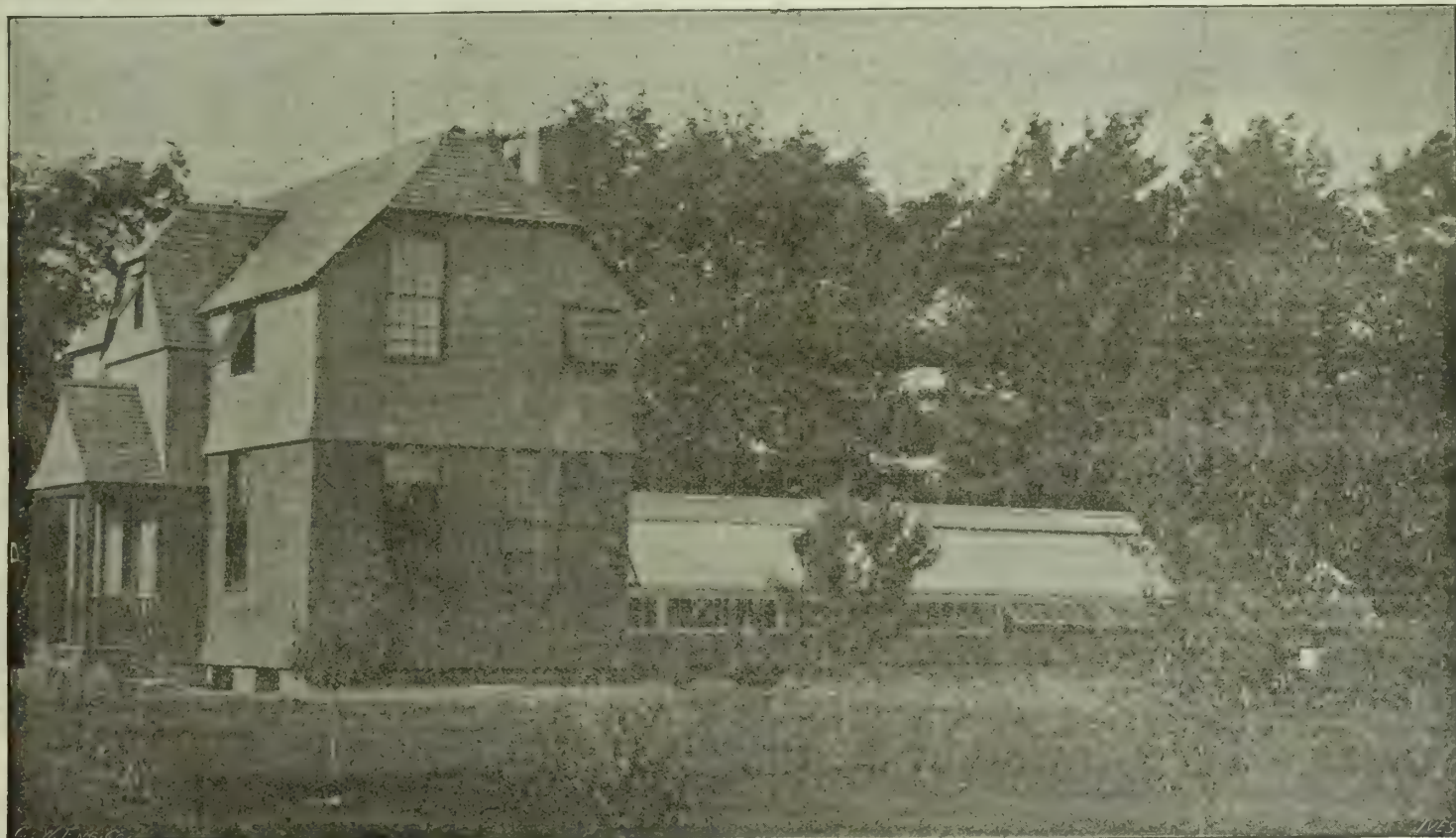
EDITORS PRESS:—Here is what I have to say in regard to the above queries: "Would nuts of the English filbert grow, if planted in the spring?" Any kind of nuts will grow if planted even very late in the spring, provided first, that the nuts be *fresh*; that is, of the previous year's raising; second, that they be kept for at least a fortnight in wet sand in a cool cellar, where they will properly swell up, ready to sprout as soon as planted. The ground where nuts are planted should be kept pretty moist, at least till the nuts are fairly sprouted. In this way I have succeeded perfectly in making walnuts grow that had been received from Europe on the 10th of April and planted in the open ground about the first of May, having kept them 15 to 20 days in wet sand in the cellar.

"Would you plant the nuts or the kernels?" The nuts, of course. There need not be any

propagated by grafting. In grafting any of nut trees, always take the grafts from "ling trees," or from trees grafted with cuttings from such trees. A great many complaints are heard from all around of seedlings of the Japan mammoth and European kinds bearing burrs with nothing in them; so it is so much safer to graft chestnut trees and graft them from varieties known to do well and to bear nice nuts and an abundance of them.

"What do you charge in California for fresh walnuts (trees and nuts) of the Proporturiens variety?" No fresh seed of the first generation Proporturiens can be had in California; only nuts borne on second and third generation trees. The trees grown from such nuts are no better than the common European walnut or *Juglans Regia* (English walnut, as it is called in this country). After the second generation walnut varieties mostly go back to the mother type; in other words, lose their very characteristics, whether it be the precocity of the kind, its productive qualities, its hardness or the fine shape and size of the nuts. The Proporturiens nuts borne on the original tree, or trees grafted from the original, which is the same, produce trees of the second generation, the only ones worth while to plant. So it is with those other beautiful French varieties of walnuts propagated for the beauty of the nuts or fertility and hardness of the kind, such as Mayette, Franquette, Parisienne, etc.

Proporturiens nuts as we find them in California are all grown from second and third generation trees, and the trees grown from such nuts may be regarded as common European walnuts,



THE INSECTARY AT THE CORNELL UNIVERSITY AGRICULTURAL EXPERIMENT STATION.

Comstock of the facilities secured for insect studies, from which we draw the following outline. Although the University has a well-equipped Entomological Department containing extensive collections, a good library, and other apparatus for entomological work, all of which were placed at the disposal of the station, it became necessary to make special provision for the new duties of the department.

The science of experimental entomology is yet in its infancy. Although a few observers have made wonderful discoveries, it has been done with very crude apparatus, excepting such, like the microscope, as has been constructed for workers in other fields. While magnificently equipped laboratories of physiology and histology are springing up at all of the scientific centers, the student of the habits of insects contents himself with a few breeding-cages, scarcely better than those used by Reaumur a century and a half ago.

The greater number of entomological subjects that an experiment station should investigate fall under two heads: First, studies of the life histories of insects; second, experiments in the destruction of noxious insects or of preventing their ravages. Work in neither of these lines can be well done in an ordinary entomological laboratory. In order to make accurate investigations of this kind it is necessary that there should be a place where living plants can be kept with insects upon them, and that all of the conditions of growth of both plants and insects should be under control. It was, therefore, decided to erect a laboratory specially for experi-

length. One of these is used as a hothouse and the other as a coldhouse. The slate tables along the sides of the conservatory are covered with gravel; here are kept the plants growing in pots, and those breeding-cages from which water is allowed to drain; while upon the wooden tables in the center of the room are kept the breeding-cages from which there is no drainage.

In the equipment of the building special pains have been taken to secure good apparatus for microscopic and photographic work. The shop is furnished with a workbench and tools for use in making and repairing apparatus; and the conservatory is supplied with the ordinary conveniences for a building of this kind.

MERCY TO THE BEASTS.—At a meeting of the Society for the Prevention of Cruelty to Animals held in this city March 21st, Sec. Hunter reported that during the month of February 44 complaints in reference to horses and dogs were investigated. There were taken from work 15 lame horses, 16 old or worn-out horses and 3 sick and injured horses. The receipts during the past month amounted to \$128 and the disbursements were \$132.

ASSISTANT SECRETARY OF AGRICULTURE.—The President's nomination of Edwin Willits of Michigan to be Ass't Secretary of Agriculture has been confirmed by the Senate.

A PIECE of redwood bark three feet thick was brought to Visalia recently from the Frazer mill.

uneasiness about the nuts not splitting easily enough to let the sprout out, if they are put in wet sand in a cool cellar. When nuts of any kind are put to sprout early in the winter, and the sand they are packed in is made quite moist, by the time spring is at hand, the nuts (and the same is true of the seed of fruit trees) will have grown roots several inches in length and a top fully one to two inches. It is well whenever nuts or the seed of fruit trees are put to sprout in sand in the cellar early in the winter to examine them once in awhile, and be sure to have the ground in which to plant them ready beforehand. It is better to plant nuts in drills, with the seam up and down, perpendicular to the horizon, and with three inches of dirt over such large nuts as walnuts; less for smaller ones.

Filberts can easily be procured in California from nut-growers, though propagating the filbert from the seed is not desirable, a too small percentage coming "true." The best plants are those "true from the root;" that is, propagated either from layering or the division of bushes themselves. Such plants will also bear sooner than seedlings. The latter are cheaper, and can be had at any price, from \$25 down to \$10 per hundred. Plants grown from layering are much higher—from 25 cents to 50 cents apiece.

"What do California nurserymen charge for fresh nuts of the American chestnut?" A person should never wait till the spring to plant chestnuts; for, unlike walnuts, almonds and filberts, chestnuts do not keep. The seed should be procured in early winter and put in sand in the cellar. I do not think that many American chestnuts are grown in California; the European chestnut is much more common. The "Marron," or round chestnut, the largest and most valuable of all chestnut varieties, does not come true from the seed, degenerating quicker than any other sorts of nuts. The "Marron" chestnut is invariably

having nothing of the Proporturiens but the name, except the good quality of the nut. Proporturiens trees vary in prices whether they be second or third generation trees, selling from \$15 to \$35 per hundred (one-year-old trees).

In Oregon I should think that it would be wiser to plant none but kinds known to be perfectly hardy.—FELIX GILLET, Nevada City, Cal.

Knots on Roots of Fruit Trees.

EDITORS PRESS:—Is that which is known as "black knot," a black, warty excrescence that is occasionally found on the roots of nursery trees, fatal to the tree on transplanting? If removed by cutting, is it likely to return in new growth? A good many trees that have come here from distant nurseries have those warts upon the roots—not higher on the tree—and some claim that they will come back even if removed, and eventually kill the tree. Many of the Press readers will be thankful for your opinion.—SUBSCRIBER, Lower Lake, Cal.

These knots on roots have long been a trouble to nurserymen and tree-planters, but their cause (except on apple trees, when they result from woolly aphis) is not known. It is possible that cutting away cleanly and painting the wound will stop the trouble, but it is a great risk for the planter to take. Thousands of trees have had to be pulled up at the end of the first or second year after planting because the unhealthy growth on the roots has consumed the sap which should have forced on the top. In our own planting we would not put a tree into the ground unless it had clean, healthy roots.—EDS. PRESS.

Live-Stock Insurance.

EDITORS PRESS:—Will you please tell me if you know of any insurance company that will insure blooded stock?—S. E. ROBERTS, Genoa, Douglas Co., Nev.

We distinctly remember that a special com-

pany for this kind of insurance was talked about awhile ago, but whether organized or not, we are not now sure. If any of our readers can give information on the subject we shall be glad to hear from them.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

BUYING HARVESTERS.—San Leandro Reporter, March 23: Mr. Huffman of Merced was at the Best Agricultural Works on Tuesday and purchased three harvesters. He bought four harvesters last year from Mr. Best. He ordered one of the Remington traction engines and said that he would probably need five more. Mr. Huffman is one of the largest grain-farmers in our State. He farms in all about 30,000 acres of land. M. B. Sparks of Davisville also purchased one of the Best & Driver harvesters on Saturday.

TOP-DRESSING PASTURES.—In last December a heavy top dressing of well-rotted manure was put on a pasture at the Souther farm. The manure was put on very thickly, so that it almost covered the entire surface of the ground. Several showers fell on part of this manure, but most of it received nothing for several weeks but the dew. We naturally expected that the drought plus the manure would burn the feed; and it was very satisfactory to find that the mulching seemed to collect every particle of moisture and to retain it for the benefit of the grass, which grew far better than where no manure had been put. Since the heavy rains of the past two weeks the grass that received the manure has taken an enormous start, and the stock can hardly eat it down as fast as it grows.

Butte.

GONE GOPHERS.—Gridley Herald, March 21: The fullness of the Feather river last week was joyfully welcomed by the owners of alfalfa lands along that stream, because of the overflow drowning out so many gophers. These little animals were very numerous in the river bottoms and worked serious damage to the alfalfa-fields. When the river overflows the lands a large proportion of the pests are drowned, while others seek the high knolls. Last Friday Harry Biggs, George Evans, William Moody and a Chinaman started out to slay the gophers on the knolls in the Ord ranch alfalfa-bottom. Clubs were the weapons. Between noon and 5 P. M. the quartette killed 4317 gophers, by actual count. Mr. Biggs says they saw more than twice that number of dead ones floating on the water.

ARTESIAN WELL AT PALERMO.—Wheatland Four Corners, March 23: Jim Reotor was down from Palermo Saturday. He says: We have gone down 600 feet, and at that depth have struck a flow of 30 gallons of water per minute, rising to the average level of Mr. Perkins' ranch. This water is perfectly free from mineral and all foreign substances. We struck a flow, as you are aware, at 200 feet, but kept on boring, and each stratum of hardpan we passed through increased the flow. We expect to finish the well in about two weeks. The total cost will be about \$2000. It was our intention to get gas and water out of the same well, but we have given up the idea of getting a practical flow of gas, as our tools are not suitable. Mr. Perkins intends purchasing a more complete set of tools with which to sink several more wells. He is satisfied that artesian water is practically a success.

DISTRICT ASSOCIATION OFFICERS.—Chico Enterprise, March 23: A meeting of the Directors of the Third District Agricultural Association was held this afternoon at the residence of Dr. C. C. Mason. O. H. Merrill of Willows and W. M. Billups of Colusa came over this morning to attend the meeting. Directors Mason, Shippee, Hendricks and Garner were also present. Dr. C. C. Mason was elected president, W. A. Shippee vice-president, and Jo. D. Sprout sec'y.

Contra Costa.

THE SQUIRREL PEST.—The following is an extract from official report, in Martinez Gazette, of Supervisors' meeting, March 15th: In the matter of providing for the destruction of squirrels in the county of Contra Costa: The said matter being under consideration by the board, upon motion of Supervisor Ivory, it is ordered that a committee of three, consisting of Mr. J. Foster, Mr. W. Caven and Mr. A. L. Bancroft, be and is hereby appointed to meet and confer with a committee of like number to be appointed by the Board of Supervisors of Alameda county (if the Board of Supervisors of Alameda county will appoint such a committee) with reference to the subject of ridding the two counties of squirrels. Said committees are requested to determine and make a joint report as to what in their judgment is the most satisfactory and economical method of exterminating the pests in the counties of Alameda and Contra Costa.

Fresno.

SHEEP AND WHEAT ON THE WEST SIDE.—Cor. Reporter: During the month of February there were 60 head of sheep shipped from Huron prospects. Indications are that that number will be exceeded during March.... There are about 20,000 acres of grain sown this season within the radius of 18 or 20 miles of Huron, all of which is now growing and bids fair to make the best crop ever grown in this

section. The major portion is wheat, there being but little barley sown this season.

BERENDA BARLEY.—Ceres Cor. Modesto News, March 20: Arthur Cook, who has just arrived from Berenda, showed us some barley which had attained a growth of 2½ feet and has completely developed heads. He also showed us some fine wheat which would soon head-out. The grain was picked from C. N. Whitmore's ranch near Berenda.

Humboldt.

ORCHARDISTS' CONFERENCE.—Herald: On the 9th instant a meeting of valley horticulturists was held at Rohnerville. The attendance was good, and a becoming interest was manifested in the deliberations. Sections of infected trees were produced from orchards in various portions of the valley. Some of these were of a nature to awaken renewed interest in the cause. The depredations shown were mainly those of the scale and aphid, and some of them were bad enough. One or two orchards make a dangerous showing. The next regular meeting will occur on the first Saturday in April, but the president may deem it advisable to call the members together at an early date for the purpose of discussing timely action for mutual protection. The work has been well inaugurated, and it should not be permitted to lag.

Los Angeles.

POMOLOGISTS AT PASADENA.—Union, March 23: The County Pomological Society will hold a meeting here April 4th. The following program is announced: Address of welcome by Rev. E. L. Conger, Pasadena; response by Hon. H. Hamilton, Orange; essay on Lemons by F. W. Hovey, Pasadena; essay on the Resources of Los Angeles County, by N. Philbrook, Pasadena; paper on Poultry for the Fruit Grower, by Prof. Nisbet, of the Rural Californian; paper on Small Fruit-Growing by D. F. Smith, Santa Ana.

ORANGE SHIPMENTS.—Pasadena has shipped 37 carloads of oranges this season, as against 20 for the entire season last year. It is estimated that less than one-half of the crop has thus far been marketed.

Napa.

AGRICULTURAL ASSOCIATION.—Register: The annual meeting of the stockholders of Napa Agricultural Association was held Saturday afternoon in the courthouse. Roll-call showed 73 per cent of the capital stock represented, as required by the by-laws. The report of the secretary, A. H. Conkling, shows the association to be in a remarkably prosperous condition, considering that it has been in existence only one year. Directors for the ensuing year were elected as follows: L. L. James, F. W. Loeber, W. J. McCollum, R. F. Taylor, W. H. Crabb, N. Coombs, John Even, M. M. Estee and G. M. Francis. W. A. Fisher urged upon the association the necessity of beautifying the fair grounds with shade and ornamental trees. The secretary solicited contributions from those present for a "tree fund." The sum of \$74.50 was raised without difficulty and the secretary will continue his canvass. A meeting of the directors was held immediately upon the adjournment of the stockholders' meeting. Officers were elected as follows: Pres., L. L. James; V. P., F. W. Loeber; Treas., W. J. McCollum; Sec., A. H. Conkling. The matter of fixing the exact date of the fair was laid over until next meeting.

Placer.

RECOMMENDED TO THE GOVERNOR.—Newcastle News, March 20: A meeting was held at Auburn on Saturday last for the purpose of selecting eight suitable persons to recommend to the Governor for appointment as directors of our new agricultural district. The attendance was quite large and was very representative in its character. The meeting was organized by the selection of Gen. Hamilton of Auburn as chairman, and E. O. Smith, of Clipper Gap, as secretary. After considerable discussion, it was voted to choose one director from each of the five Supervisor Districts and three at large. Following are those recommended for appointment by the meeting: General Jo. Hamilton, J. Parker Whitney, Geo. Towle, J. E. Sparks, J. C. Boggs, W. B. Lardner, W. M. Baker, and H. T. Power. [We observe that on account of J. P. Whitney's absence abroad and consequent inability to qualify, Dana Perkins was afterward nominated in his place.—Eds.]

San Bernardino.

REDLANDS ORANGES.—Citrograph, March 16: About 25 carloads of oranges will be shipped from this point this year against nine last year. Griffin & Skelley, the big fruit house of Riverside, have a force of 55 men here picking and packing oranges. They load an average of nearly two carloads a day. The boxes all come branded "Riverside," but "Redlands" is stamped on every box besides. G. & S. are using one of the Keeney orange-graders at their packing-house. It does the work perfectly and will grade into standard sizes 1000 boxes a day. The working of the machine is very ingenious and will repay a visit to see it in operation.

FAIR FUNDS.—Times-Index, March 23: The Legislature just adjourned was liberal with the new Agricultural District, No. 28—San Bernardino county—in making an appropriation of \$4500 for the two years. This will give our society, when organized, \$2250 a year to assist it in holding its fairs.

CITRUS SETTINGS.—Citrograph, March 23: Great loads of orange trees may be seen on al-

most any road these days. The movement is general, for the wagons are heading "every which way." The Old San Bernardino settlement does not propose to get left in the planting of orange trees. J. W. Doran will put in 1000 more; Dr. Pierson about the same, and Frank Hinkley will set some more south of the road. Then the Mound City Co., a little west, is preparing to set out 9000 trees in one body. There are probably others that we have not heard of, which will bring the new planting up to at least 200 acres.

San Diego.

EDITORS PRESS:—The last storm, just closed, gave us 2½ inches of rain, making the fall for the season 16½ inches. It was the hardest storm we have had this year; but although the rain in this locality fell in torrents, there is little damage reported so far. In mountain districts the roads are washed somewhat and in a few places made impassable for a few days. The injury to growing crops has been slight, aggregating only a few washes on the steepest hillsides. With 16½ inches of rain there is little apprehension about the coming crops. Since I began writing the rain has commenced falling again, with prospect of a steady downpour for another term. Where are the croakers now? Will they survive this season of plenty with their chronic growling every time the sun shines: "This is going to be a dry season—nothing raised"—A. W. OSBURN, Dehesa, San Diego Co., March 15.

FLOWER FESTIVAL.—Notice is given in the local papers that the San Diego Annual Flower Festival will open April 23, for the benefit of the Women's Home Association, Day Nursery and Women's Exchange.

Santa Barbara.

EDITORS PRESS:—The heaviest storm of the season has just past, and the sun is again shining bright and warm. Tuesday, the 12th inst., the rain began, ending Saturday, the 16th, at 6 P. M., giving seven inches or more of water. It is a storm which we will remember, although no great damage was done, except some washes and gulleys through the newly plowed land. The gophers were not all prepared for the sudden rush of water. Many of them are dead on the surface, and we hope many more have fared no better in their holes. The rainfall for the season is 20 inches, half of which fell in November and December. The storm just past will make many of our farmers extra work to put their soil in readiness for planting, but the harvest will be enough larger to more than pay for the extra work. Apricot and peach trees are beginning to bloom. Apple trees are making a start and promise to bloom very full.—O. N. CADWELL, Carpinteria, March 17, 1889.

EDITORS PRESS:—If farmers are not happy now, they certainly ought to be, with our abundant rains, warm, sunshiny weather, and all nature smiling aloud. Birds and bees make music all the day; the latter are swarming. I had two come out to-day and the prospect for a good bee year is rosy—indeed a good year for everything but croakers; they will have to wait a little. But let them take comfort—there is a time and a place for everything.—S. P. SNOW, Santa Barbara, March 22.

THE BIG VINE.—J. H. Roe in Riverside Press: The big grapevine is not in Santa Barbara as many people suppose, but in Montecito, five miles eastward. Montecito is a cluster of lovely homes, lying on the sides of the foothills which rise from the sea to the Santa Ynez mountain range. The famous Mission vine grows close to the large, old-fashioned house in a 20-acre orchard named "La Para Grande." This is the baby vine; the old one was cut down and a cross-section of it sent to the Centennial. But the baby is now almost as big as its mother. The stem measures 60 inches round. The canes or branches are trained on a trellis over your head, so that the whole thing makes a large and comfortable arbor. It's a monster and no mistake.

Santa Cruz.

PIE PLANT PLENTY.—Watsonville Pajaronian, March 21: Judge Bookins has gone into the cultivation of rhubarb on an extensive scale this year. He has seven acres of his home place set out in this great "spring fruit." That acreage of rhubarb will make a big showing in pies.

Shasta.

EDITORS PRESS:—It looks now as if it were lucky that the ground was dry and little snow in the lower mountains, else this big rain (which is rain and not snow high into the mountains) would have melted the snow, had it been there, and made a flood in earnest. Spring-gardening is now under way here, and the usual spring crop of improvements, actual and prospective. We are deeply but quietly interested in the railroad surveys going on hereabouts, but nothing seems to be yet decided upon.... The great negro-colonization scheme has finally collapsed, to the great relief of all the whites of this country. Its fundamental idea was a mistake, its mode of execution feeble and ill-advised, and its natural and proper result a fizzle. History cannot point to a successful negro colony.... As illustrating the durability of sugarpine, a tree was lately made into first-class shakes, which was found 37 years ago by one of our oldest settlers prostrate, with every appearance of having lain so for 10 or 12 years. The heart was as sound as that of a green tree.... There are more county roads being laid out in this county this year than ever known before in twice the length of time.... The new court-

house at Redding is approaching completion and is a very handsome brick building erected at the moderate cost of \$40,000. It is to have a \$1700 clock. A Michigan firm is about to buy several thousand acres of timber just above here for lumbering. Many mills are already in operation.—W., Shingletown, March 19, 1889.

Tulare.

HORSE SHOW TO DAY.—Hanford Sentinel: We are authorized to state that there will be a grand horse show in Hanford on Saturday, March 30th. Stallions and colts with dams will be shown, and all are invited to join in.

WHEAT ESTIMATES.—Several of our business men who deal largely with farmers have been figuring on the prospective wheat crop of Tulare county for this season. One gentleman who has heretofore dealt largely in wheat estimates that there will be 3,000,000 sacks of wheat this year. Another dealer in cereals is not quite so liberal in his estimate, but says that the yield will be from 2,000,000 to 2,250,000.

AGRICULTURAL DIRECTORS.—Governor W. termman has appointed H. H. Fish and H. A. Blodgett of Kern county and R. O. Newman and W. H. Fox of this county directors of the 15th Agricultural District Association. The board is now constituted as follows: Jasper Harrell, R. E. Hyde, H. P. Perkins, R. O. Newman, W. H. Fox, W. H. Hammond, H. H. Fish and H. A. Blodgett. Pres., Jasper Harrell; Sec'y, Susman Mitchell.

Yuba.

LIVE-STOCK AND WOOD LOST BY FLOOD.—Marysville Appeal, March 22: In the bottom lands on the Berg place north of this city some 15 head of cattle that were pasturing there, belonging to Jacob Schimpf of this place, have been drowned. Yesterday the bodies of several cattle and quite a number of sheep passed down the Feather river. A large quantity of wood has been cut lately and left in the river bottoms. The owners were so confident that the water would not come up high that they let the wood remain, and the result has been that several thousand cords have floated away.

AT THE CANNERIES.—A force of men is very busy at present turning out cans to be used at the Marysville cannery during the season. They are making about 1500 a day.... J. J. Pratt, sup't of the Sutter cannery, says they will commence putting up additional buildings in about one month. He now has applications for positions, if housework can be obtained, from enough people to run a cannery much larger than the present one.

THRIFTY PEACH TREE.—Marysville Democrat, March 20: During a visit to White, Cooley & Cutts' store this morning our reporter was shown a yearling peach tree of remarkable dimensions. One year ago R. C. Kells put out quite a number of peach seeds at the nursery near Live Oak, owned by Messrs. White, Cooley, Cutts & Elder, of this city. From them have sprung a number of seedling trees of surprising height. The tree on exhibition is seven feet high, and measures eight inches in circumference and 2½ inches in diameter. It has a dozen roots which measure from one-half to one inch in diameter. This is the largest seedling of its age that we have ever seen.

ARIZONA.

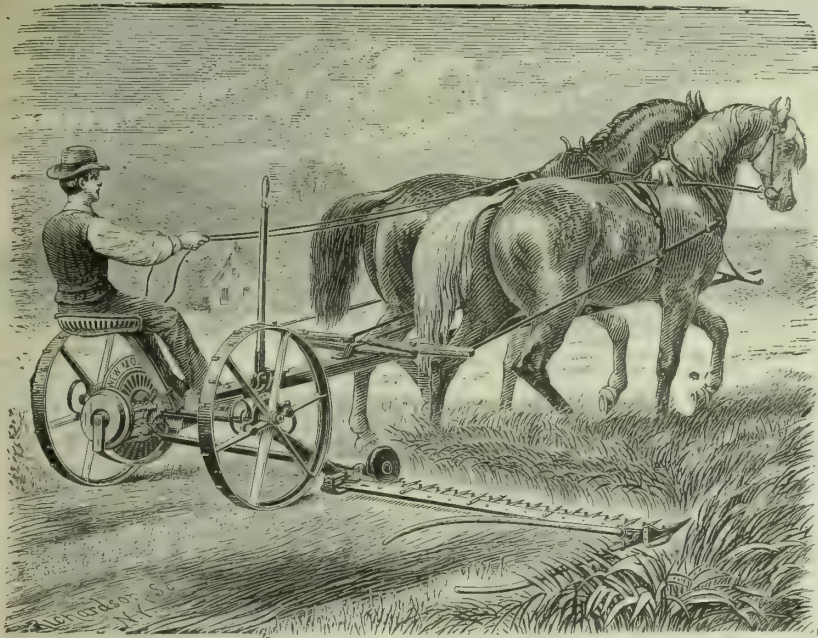
WOOL.—Hoof and Horn, March 21: W. J. Hill, of Bellemont, the largest individual sheep-raiser in Yavapai county, and one of the most indomitable rustlers that ever placed a foot in Arizona, says the present season will be a profitable one for the shepherms of his section. The clip will be unusually heavy and in a fine condition, he believes; and he concedes that the retention of a protective tariff will not tend to depreciate the wool market in the least.

NEVADA.

BEEF NOTES.—Reno Gazette, March 21: Of the 9000 head of cattle put up here early in the fall to be fattened for the S. F. market, only about 2500 remain unsold. Of these, G. W. Mapes has 850, Sparks & Tinnin 300, E. Crane 200, John Slavan 100, Joe Frey 150, James Wall 200, G. C. Hunt 235, Mr. Long 60, Louis Dean 70, Jim Jones and Geo. Humphreys 300, John Theodore 60, and about 300 in smaller lots scattered through the valley—enough to feed S. F. about 80 days. G. W. Mapes is negotiating a sale for part of his with John Slavan now. It is getting so late in the season that not much improvement in the market can be anticipated. There are only about 1200 or 1400 of the 3500 put up at Lovelock's left for the market, and they are finding their way to the shambles very fast. The ruling price is 5½ cents for prime cattle.

ARBOR DAY.—In pursuance of an Act of the Legislature of Nevada, approved Feb. 10, 1887, Gov. Stevenson has proclaimed and set apart Friday, the 12th day of April, A. D. 1889, as Arbor Day, and earnestly requests its observance throughout the State, especially by all the teachers and pupils of the public schools, and that said Act be read by teachers to pupils, and its wise and salutary provisions explained. He says: "If heartily and properly observed the same may be rendered exceedingly beneficial in many ways. The planting and raising of shrubs, vines and trees may be made pecuniarily profitable, and in addition thereto great benefits may arise from so doing by reason of the climatic and sanitary effects to ensue. Let the day be well and faithfully observed."

Farmers Should Look to their Interests in Buying AGRICULTURAL MACHINERY TO GET THE BEST!



A Boy

—WITH—

ONE HORSE

Can Rake

20 TO 25

Acres

PER DAY.



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No. 1.

AND THE TAYLOR No. 4 SELF-DUMP RAKE

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ARE THE GENUINE, and are, as they always have been,

THE BEST IN THE WORLD!

One that will Outwear two of any other make of Machine.

One that is very Simply Constructed and the Lightest Draft.

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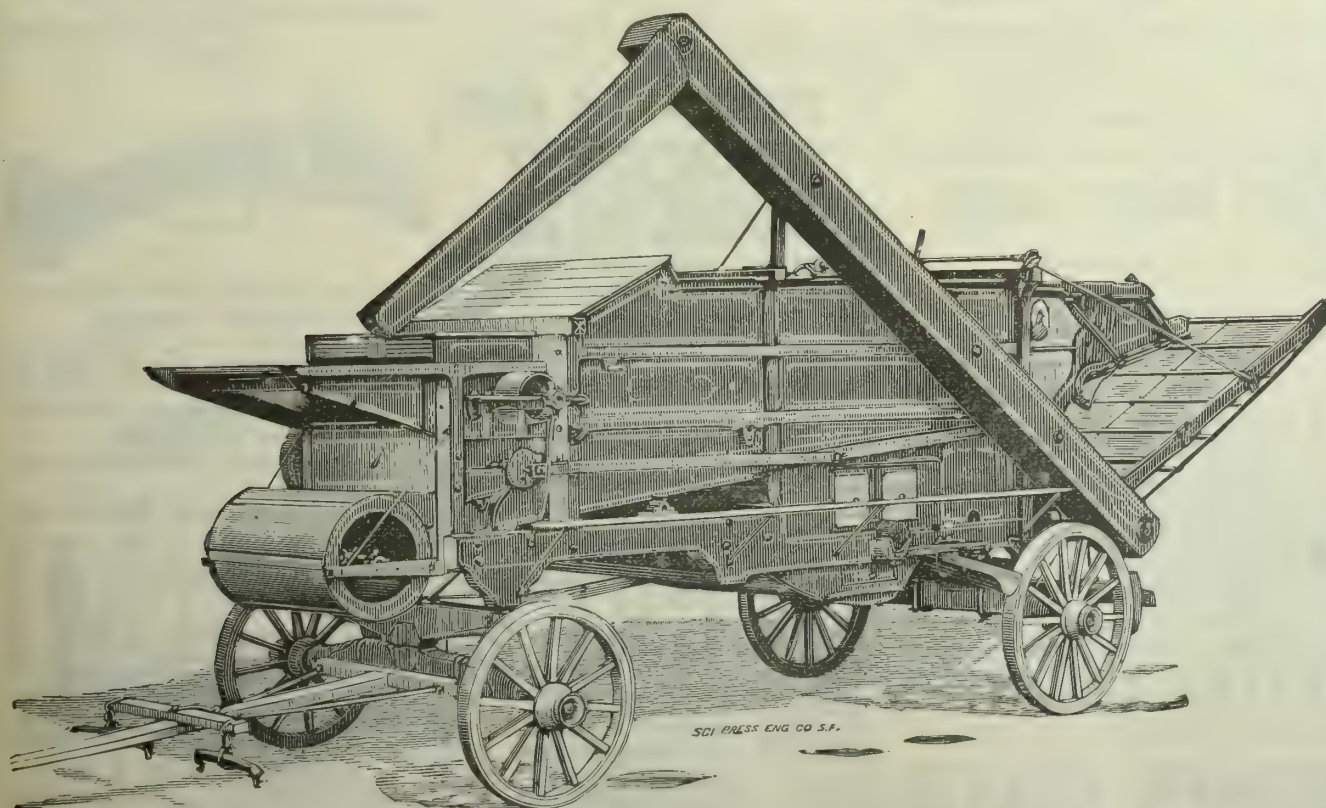
Farmers should remember that the experiment of buying inferior machines is expensive, when they can buy the “ADRIANCE BUCKEYE,” and be sure of getting the best machine in the market. See that ADRIANCE, PLATT & Co. is cast in the machine.

Send for our New Catalogue for 1889, giving full Descriptions and Revised Prices of all kinds of Harvesting Implements,

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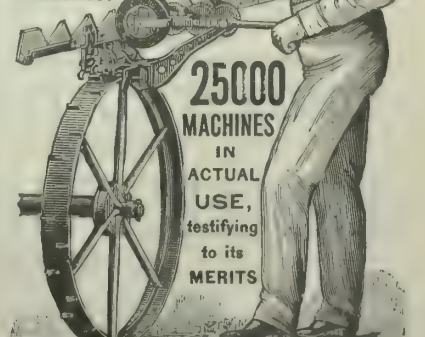
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25000 MACHINES IN ACTUAL USE, testifying to its MERITS

BURGE & DONAHOO CO., Gen'l Agts., San Francisco, Cal. NEWELL MATTHEWS, Agent, Los Angeles, Cal.

This paper is printed with Ink Manufactured by Charles Eneu Johnson & Co., 500 South 10th St., Philadelphia. Branch Offices—47 Rose St., New York, and 40 La Salle St., Chicago. Agent for the Pacific Coast—Joseph H. Dorsey, 529 Commercial St., S. F.

Cactus Hedge Again.

The Anderson *Enterprise* prints the following letter, addressed to Mr. Wm. Hawes of that place, in answer to his late queries in our columns:

HANFORD, CAL., March 4, '89.

Dear Sir:—Referring to your letter to the Rural Press, requesting information regarding the cactus hedge, I would say that as to what kind of a fence it would make I do not know, but I do know that it will pay to investigate the Hedge Company, as the experience of a number of our ranchers will warrant.

In the autumn of 1887 an agent took quite a number of orders here for this cactus hedge. The company agreed to furnish the plants for \$130 per mile; if they failed to grow, the company was to furnish plants to reset free of cost. The plants were delivered here about March 11, 1888, and were planted carefully. Not one of them grew. When the plants were delivered the farmers were required to pay about one-third cash and give notes for the balance. The notes were sold; the farmers have had to pay them. The company proved a fraud. The farmers are in possession of a pretty dear experience and no hedge. For the truth of this statement, I refer you to the following well-known ranchers here: Robert Doherty, Ed. McNamee, M. A. Hill, Ira V. Hill and I. L. Harris. I did not buy any. Respectfully,

W. F. FLOURNOY.

P. S.—The company claimed to have been incorporated in Fresno county, but there are no articles of incorporation on file in the clerk's office of that county. They also claimed to have a patent on planting the hedge.

W. F. F.

A Siskiyou Farmer

Writes us: I like the Press very much and would be at a loss without it. Some of my neighbors say that it is a good paper, but comes too high. So they will take two or three other papers, at \$1 or \$2 each, and spend their time in reading them. When the term of subscription is up, their time and money are spent, and they haven't gained any practical knowledge. On the other hand, if they had taken the Press, they would have gained something on many subjects.

WILD FOWL KILLED BY HAIL.—The *Mariposa Gazette* says: A heavy hailstorm passed to the west and north of Merced on Wednesday of last week. Some of the hailstones were large and solid and killed great numbers of geese and birds. At Chester, on the San Joaquin river, two men gathered 150 dead geese after the storm passed away, from which they picked 18 pounds of splendid feathers.

Worth's Patent Horse-Power, Grape-Stemmer and Wine-Press.

A Rural representative visited the foundry and machine-shop of Mr. W. H. Worth in Petaluma last week. His patent horse-power for dairy purposes has been in good demand this year for local use, and among outside orders was one from Japan.

Mr. Worth has made a great improvement on his grape-stemmer, and has received a large number of orders for his hand wine-press. He also will build two hydraulic presses this season, a model of which can be seen in the rooms of the Viticultural Commissioners on Montgomery street. We expect to illustrate his new stemmer in the Rural, some time in June.

To Chicago via the St. Lawrence.

EDITORS PRESS:—Permit one of your subscribers to express his satisfaction at the manly way with which you take the part of the California manufacturers and producers against the aggressive policy of our railroads, manifested in the prohibitory rates which they charge to the parties alluded to, making it very difficult, if not absolutely impossible, to compete with their Eastern rivals. I like the outlet from the dilemma which you suggest, i. e., the chartering of vessels for a trip around Cape Horn for all articles enduring the time and exposure of such a voyage. The article in question was canned fruit. Now, I take the liberty to suggest an improvement to the plan. It seems that the charges of the railroads from the sea-ports to Chicago, the point to be reached, are so high that competition becomes impossible.

Now, there is a water-course without interruption, by way of the Niagara and St. Lawrence rivers, the Welland canal and the Great Lakes. I do not exactly know the size of the vessels capable of taking this route, but feel almost sure that it would allow the passing of schooners of respectable size, large enough, at all events, to withstand the dangers of the ocean. Many of these schooners are built on the clipper plan, making them fast sailers—an advantage not to be underestimated. By chartering several of them, any desired tonnage might be obtained.

Will you have the kindness to give these lines a place in your columns? They may be of little or no value, in case it should be discovered that the water-courses to be passed are too shallow for the purpose pointed out; but I am so anxious to serve a highly deserving class of our citizens that I am anxious to see every possible way of furthering their traffic brought to light and fully discussed.

RUDOLPH LEONHART, SR.

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NOTICE.

THE ANNUAL MEETING OF THE STOCKHOLDERS of the Grangers' Business Association, for the election of Directors to serve for the coming year, will be held at the office of the Association, 108 Davis street, San Francisco, at ten o'clock A. M., on Wednesday, April 10, 1889.

CHAS. WOOD, Secretary.

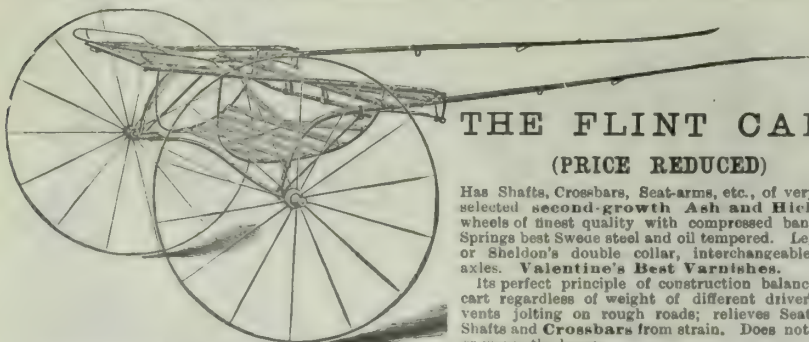
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THE FLINT CART
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Its perfect principle of construction balances the cart regardless of weight of different drivers; prevents jolting on rough roads; relieves Seat-arms, Shafts and Crossbars from strain. Does not chafe or worry the horse.

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THE EVERLASTING WHIFFLETREES.

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The question is inspired as much by affection as curiosity, since through his instrumentality hundreds of thousands, in both hemispheres, have been restored to health and happiness.

Hon. H. H. Warner, then, is a leading and honored resident of Rochester, not only, but a prominent and influential citizen of the United States. On several occasions chosen by his party as a National delegate to nominate a President of the Republic, he has been a member of the Republican State Committee and of its Executive Committee. He is a member of the American Institution for the Advancement of Science; President of the Rochester Chamber of Commerce; a successful and upright business man. He has given away fortunes in charities. The celebrated and costly Warner Observatory of Rochester was conceived, endowed, and is maintained by him. His munificent prizes for the discovery of comets has been at once the wonder and delight of the scientific world.

The yellow fever scourge in the South, the Ohio floods, the fire disasters of Rochester and other cities awakened his profoundest sympathies, and in each instance his check for from \$500 to \$5000 swelled the several relief funds. Where other wealthy men give tens and hundreds, he gives hundreds and thousands.

His charities are as ready and magnificent as his enterprises and public spirit are boundless.

The world has need of more such men. An incident led him into the manufacture of medicine. Seized some twelve years ago with what the ablest physicians termed fatal kidney disease, he was miraculously restored to health by what is now known as Warner's Safe Cure. At once he resolved to make known the merits of so potent a remedy, and the consequence is that to-day he has immense laboratories and warehouses in the United States, Canada, England, Germany, Austria, Australia and Burmah. Sales of his Safe Remedies are enormous, and their power over disease simply marvelous.

The merit of a production is in exact keeping with the character of its producer. An honest and reliable man himself, Mr. Warner makes honest and reliable medicines—a fact abundantly attested by their phenomenal efficacy and popularity.

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OF ALL

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Italian Queens, \$2.50 each; Black Queens, \$1 each; Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000 Comb Honey wholesale and retail; Hives, etc. W. STYAN & SON, The Homestead Apiary, San Mateo, Cal.

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Sent by mail or express anywhere. Box of 50, \$1.25; of 100, \$2.00; of 200, \$3.50; of 400, \$6.00; preparatory pills, \$2.00.

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NO JOINT IN FINGER BAR.

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Draft Direct from
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WILL REPLACE

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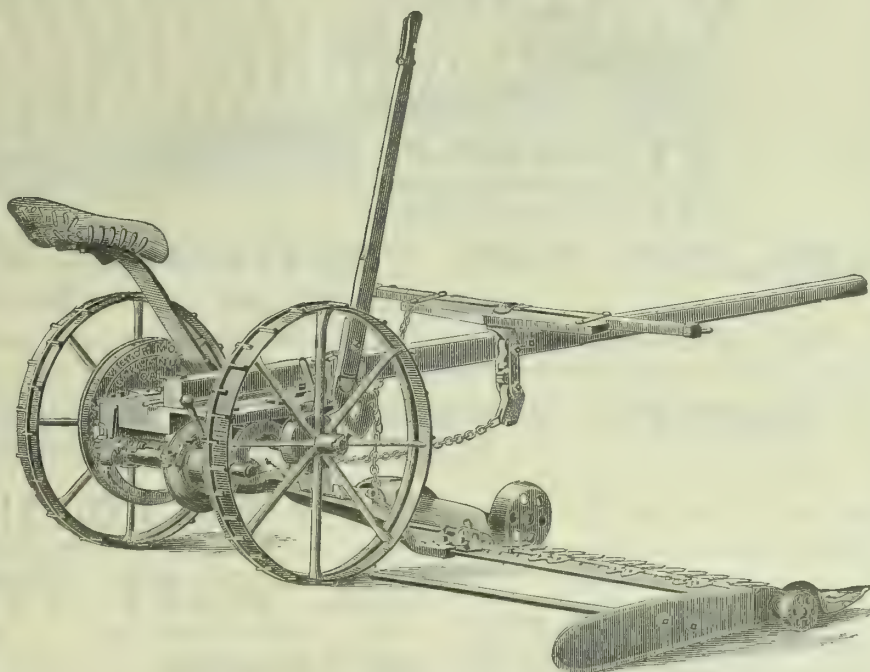
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IF THERE IS NO AGENT FOR THE VICTOR IN YOUR VICINITY, WRITE US DIRECT FOR PRICES and TERMS.

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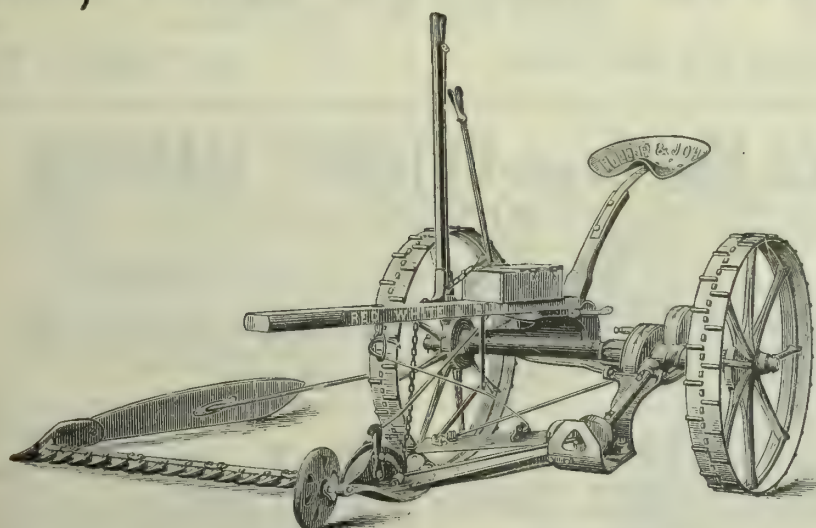
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4 Feet Cut,
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No Side-Draft.

FIRST GUN FOR 1889.

RED, WHITE and BLUE MOWER.



Manufactured Specially for the Pacific Coast.

THE BEST MOWER IN THE WORLD.

ADVANTAGES:

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Frame for Pole and Seat independent of gear frame, making it very easy on horses and driver. No jar or vibration on seat or pole. Wheels are high and have wide face—it has wide tread, the draft is direct from frame and does not pull down on pole or lift the wheels from the ground, thereby giving great cutting power, and at same time very light weight and draft. Scythe works against adjustable steel holders and does not wear on the cutter-bar—a great advantage over others.

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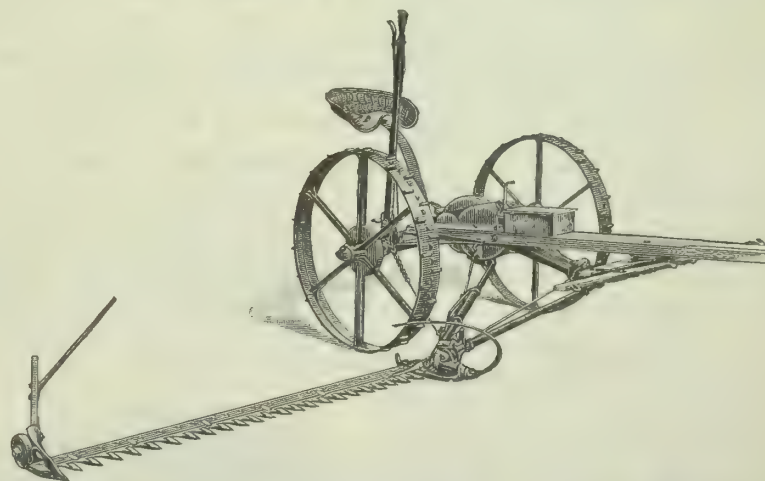
For 1889 the "RED, WHITE and BLUE" will be made for us to suit the requirements of the Pacific Coast trade, and will be, without an exception, the very best Mower in the market. Dealers cannot afford to be without it. Be sure and see us before contracting for your Mowers for 1889. A train load has been received by us. SEND FOR CATALOGUE.

BULL & GRANT FARM IMPLEMENT CO.

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FIRST IN THE FIELD!

THE DEERING MOWER!



READ THE FOLLOWING LETTERS; THEY TELL THE STORY.

NATIONAL CITY, CAL., March 13, 1889.
W. C. Rarig, San Francisco—DEAR SIR: We felt the importance of ascertaining the true value of your 1889 Mowers and have taken great pains to encompass the question thoroughly and effectually before endorsing and offering them to our customers—remembering David Crockett's grand advice, "Be sure you are right then go ahead." Upon careful inquiry we were referred to Messrs. Thomson Bros. of San Pasqual as owners of extensive alfalfa fields, and generally known as practical men with large experience in machinery—being regarded as experts. We approached them as strangers and submitted our proposition. They said that under no circumstances or considerations would they entertain a proposition to purchase any mower except the Buckeye, their last year's purchases of other makes being wholly unsatisfactory. We waived the idea of sale and asked for their unbiased judgment upon trial so as to more carefully determine a safe policy in ordering forward a quantity of the 1889 Machines with the advanced improvements.

With great satisfaction we enclose and submit their voluntary statement, and assure you that the test was under our own eye, with our best and long-experienced agent in support, and was crucial in every particular. You can now move ahead with perfect confidence.

We have wired the factory for two carloads, and you can rest assured that we shall require at least one and probably two carloads in addition.

Oh yes, Mr. Thomson bought both the 4½-foot cut and 6-foot cut machines, and a neighbor joined him in saying that any one wanting a mower would certainly buy the New Deering 4½-foot cut, or Giant 6-foot cut, if they saw them in operation.

(Signed.) ISHAM, GORDON & CO., Agents.

THOMSON BROS.' RANCHO, SAN PASQUAL, CAL., March 13, 1889.
Messrs. Isham, Gordon & Co., National City, Cal.—GENTLEMEN: After testing your 1889 New Deering and 6-ft. cut Giant Deering Mowers in our heaviest alfalfa, we unhesitatingly say that they are a great success. The draft is remarkably light. The 2½-inch section a striking improvement. The tilting by a simple movement of the foot seems to us perfect. The supplemental shoe is a valuable feature. The machines, as a whole, we pronounce a grand triumph of mechanical skill.

As a matter of fact the 6-foot cut Giant, drawn by our light team, appears to us as easy draft as the regular 4½-foot cut of other makes. We feel that we can confidently recommend them as being the best.

The Buckeye has always been our favorite until this day. Yours very truly,
(Signed.) THOMSON BROS.

SEE OUR AGENTS—in every town in the State—or write to us for descriptive catalogues.

A FULL STOCK OF MOWERS,

Also EXTRA PARTS, always on hand. Orders filled promptly on a moment's notice.

W. C. RARIG, General Agent,

No. 11 Bluxome Street, near Fourth, . . . SAN FRANCISCO, CAL.

ENTOMOLOGICAL.

The New County Horticultural Law.

An Act (approved March 20, 1889,) to amend An Act entitled "An Act to protect and promote the horticultural interests of the State." Approved March 14, 1881.

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section one of said Act is hereby amended so as to read as follows:

Section 1. Whenever a petition is presented to the Board of Supervisors of any county, and signed by twenty-five or more persons who are resident freeholders and possessors of an orchard, or both, stating that certain or all orchards or nurseries, or trees of any variety, are infested with scale insect of any kind, injurious to fruit, fruit trees and vines; codlin moth, or other insects that are destructive to trees, and praying that a Commission be appointed by them whose duty it shall be to supervise their destruction as herein provided, the Board of Supervisors shall, within twenty days thereafter, select three Commissioners for the county, to be known as a County Board of Horticultural Commissioners. The Board of Supervisors may fill any vacancy that may occur in said Commission by death, resignation, or otherwise, and appoint one Commissioner each year, one month or thereabouts previous to the expiration of the term of office of any member of said Commission. The said Commissioners shall serve for a period of three years from the date of their appointment, except the Commissioners first appointed, one of whom shall serve for one year, and one of whom shall serve for two years, and one of whom shall serve for three years, from the date of appointment. The Commissioners first appointed shall themselves decide, by lot or otherwise, who shall serve for one year, who shall serve two years, and who shall serve three years, and shall notify the Board of Supervisors of the result of their choice.

SEC. 2. Section two of said Act is hereby amended so as to read as follows:

Section 2. It shall be the duty of the County Board of Horticultural Commissioners in each county, whenever it shall deem it necessary, to cause an inspection to be made of any orchard, or nursery, or trees, or any fruit-packing house, storeroom, salesroom, or any other place in their jurisdiction, and if found infested with scale bug, codlin moth, or other insect pests injurious to fruit, trees and vines, they shall notify the owner or owners, or person or persons in charge or possession of the said trees or place, as aforesaid, that the same are infested with said insects, or any of them, or their eggs or larva, and they shall require such person or persons to disinfect or destroy the same within a certain time, to be specified. If within such specified time such disinfection or destruction has not been accomplished, the said person or persons shall be required to make application of such treatment for the purpose of destroying them as said Commissioners may prescribe. Said notices may be served upon the person or persons owning or having charge or possession of such infested trees or places, or articles, as aforesaid, by any Commissioner, or by any person deputed by the said Commissioners for that purpose, or they may be served in the same manner as a summons in a civil action. If the owner or owners, or the person or persons, in charge or possession of any orchard, or nursery, or trees, or places, or articles, infested with said insects or any of them, or their larva or eggs, after having been notified as above to destroy the same, or make application of treatment as directed, shall fail, neglect, or refuse so to do, he or they may be deemed guilty of maintaining a public nuisance, and any such orchards, nurseries, trees, or places, or articles thus infested, shall be adjudged and the same is hereby declared a public nuisance, and may be proceeded against as such. If found guilty, the Court shall direct the aforesaid County Board of Horticultural Commissioners to abate the nuisance. The expenses thus incurred may be a lien upon the real property of the defendant.

SEC. 3. Section three of said Act is amended so as to read as follows:

Section 3. Said County Boards of Horticultural Commissioners shall have power to divide the county into districts, and to appoint a local Inspector for each of said districts. The State Board of Horticulture, or the Quarantine Officer of said Board, shall issue commissions as Quarantine Guardians to the members of said County Boards of Horticultural Commissioners, and to the local Inspectors thereof. The said Quarantine Guardians, local Inspectors, or members of said County Boards of Horticultural Commissioners, shall have full authority to enter into any orchard, nursery, or place or places where trees or plants are kept and offered for sale or otherwise, or any house, storeroom, salesroom, depot, or any other such place in their jurisdiction, to inspect the same, or any part thereof.

SEC. 4. Section four of said Act is hereby amended so as to read as follows:

Section 4. It shall be the duty of said County Board of Horticultural Commissioners to keep a record of their official doings, and to make a report to the State Board of Horticulture, on or before the first day of October of each year, of the condition of the fruit interests in their several districts, what is being done to eradicate insect pests, also as to disinfecting, and as to quarantine against insect pests and diseases, and as to carrying out of all laws relative to the greatest good of the fruit interest. Said Board shall publish said reports in bulletin form, or may incorporate so much of the same in their annual reports as may be of general interest.

SEC. 5. Section five of said Act is hereby amended so as to read as follows:

Section 5. Each member of the County Board of Horticultural Commissioners, and each local Inspector, shall be paid for each day actually engaged in the performance of his duties under this Act, payable out of the County Treasury of his county such compensation as shall be determined by resolution of the Board of Supervisors of the county, before entering into the discharge of his or their duties.

SEC. 6. Section six of said Act is hereby amended so as to read as follows:

Section 6. Said County Board of Horticultural Commissioners shall have power to remove any local

Inspector who shall fail to perform the duties of his office.

SEC. 7. Section seven of said Act is hereby repealed.

SEC. 8. Section eight of said Act is hereby amended so as to read as follows, and to be known as section seven of said Act, viz:

Section 7. If any member of the County Board of Horticultural Commissioners shall fail to perform the duties of his office, as required by this Act, he may be removed from office by the Board of Supervisors, and the vacancy thus formed shall be filled by appointment by the Board of Supervisors.

SEC. 9. Section nine of said Act is hereby amended so as to read as follows, and to be known as section eight of said Act, viz:

Section 8. It shall be the duty of the County Board of Horticultural Commissioners to keep a record of their official doings, and to make a monthly report to the Board of Supervisors, and the Board of Supervisors may withhold warrant for salary of said members and Inspectors thereof until such time as said report is made.

SEC. 10. A new section is hereby added to said Act, to be known as Section nine, and to read as follows, viz:

Section 9. All Acts or parts of Acts in conflict with the provisions of this Act are hereby repealed.

SEC. 11. This Act shall take effect and be in force from and after its passage.

Sonoma and Marin District Fair.

The District Fair to be held at Petaluma this year promises to be one of the best ever held. A large number of fruit-growers and stock-farmers have given notice of their intention of making a good exhibit. A joint project is now on foot by the citizens of Petaluma and the directors to expend \$2000 on the race-track. This society has been incorporated recently and there seems to be a disposition to excel in variety of productions, exhibit of stock and race attractions any previous year.

Our Agents.

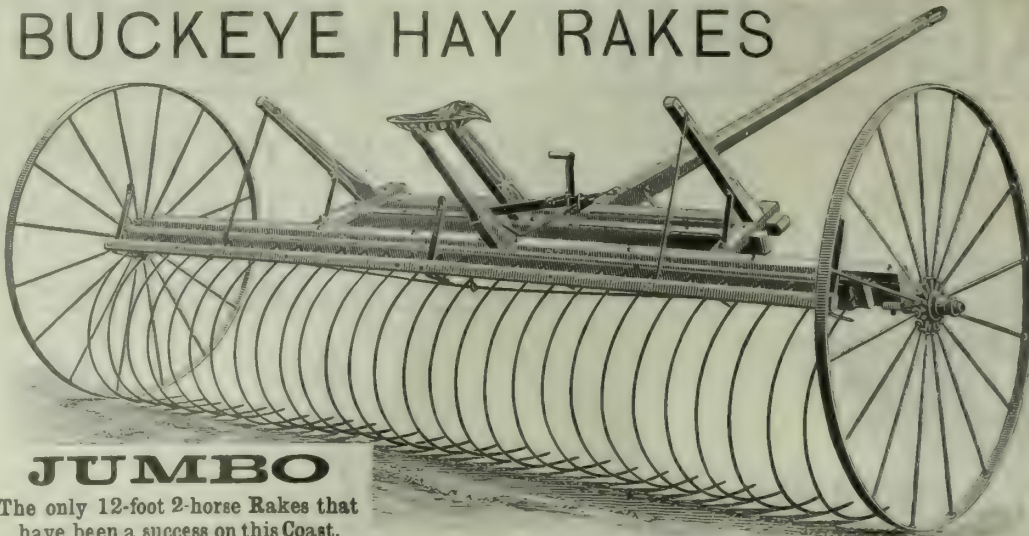
OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

A. F. JEWETT—Tulare Co.
F. B. LOGAN—Southern California.
H. G. PARSONS—Southern California.
GEO. WILSON—Sacramento Co.
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FRANK S. CHAPIN—Colusa Co.
MRS. E. J. STEPHENS—Sierra Co.
R. G. HUSTON—Montana.
E. H. SCHAEFFLE—Calaveras and Tuolumne Cos.

ORANGE COUNTY.—The Governor has appointed the following commissioners to organize the new county of Orange: Wm. M. McFadden of Anaheim; Andrew Caldwell of Orange; J. W. Townner of Santa Ana; John H. Kellom of Tustin and R. Q. Wickham of Garden Grove. An election will be held June 4th to vote upon the question of forming a new county, and if the vote in favor of such new county be two-thirds of all the votes cast, then the new county shall be formed; otherwise the bill will not become a law.

BERKSHIRE TRANSFERS.—Phil. M. Springer, secretary of the American Berkshire Association, Springfield, Ill., sends the following transfers of recorded Berkshires: Redwood Susie 20654, from Andrew Smith, Redwood City, Cal., to T. D. Cheney, Norwalk, Cal.; Ranchito Richmond 20655, from T. D. Cheney to C. A. Coffman, Rivera, Cal., and Redwood Lass 20656, from T. D. Cheney to W. W. Orr, Norwalk, Cal.

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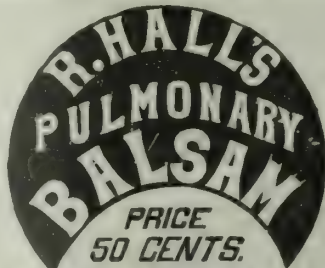
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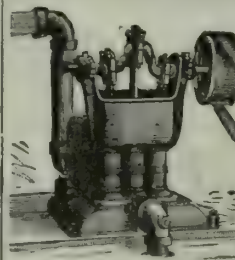
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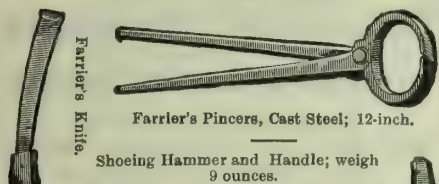
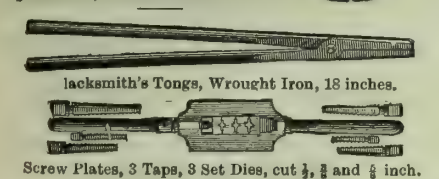
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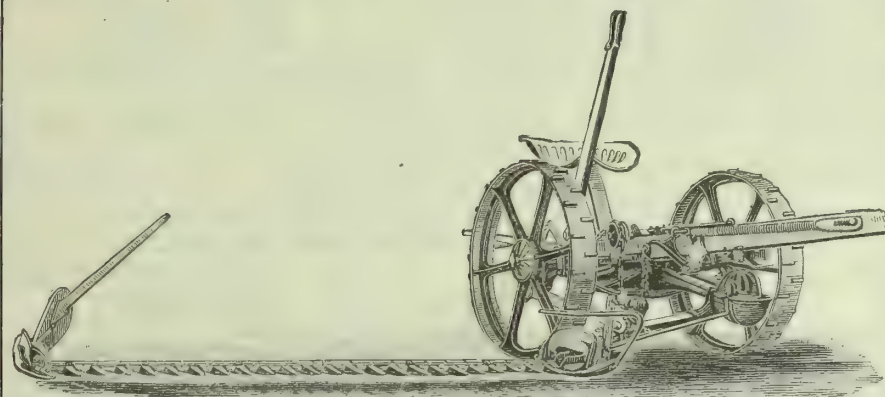
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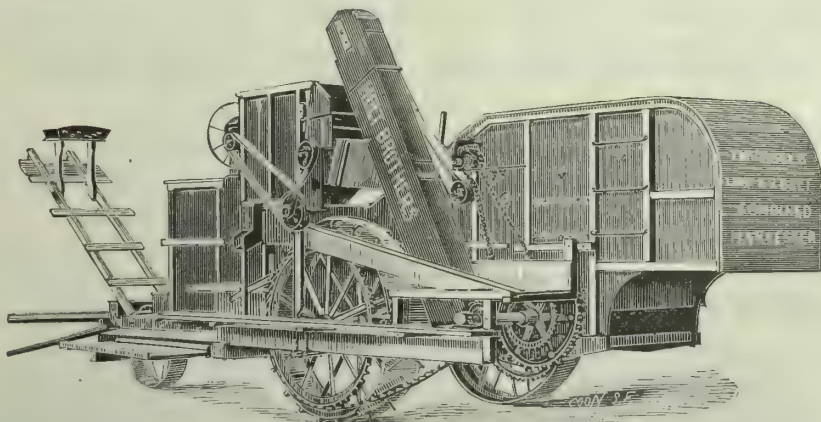
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Send 10 cents for C. H. Street & Co.'s map and description of California and colony lands (74 pages). Land for sale in large or small tracts on the coast or in the interior; valley, hill, mountain, open, timber, mineral, or non-mineral land, improved or unimproved; with or without irrigation; suitable for stock, dairy, grain, fruit, or general farming; for investment or actual settlement; for cash or on installment; will show Government land. C. H. Street & Co., 415 Montgomery St.

GRANGERS' BUSINESS ASSOCIATION, SHIPPING AND COMMISSION HOUSE.

OFFICE, 108 DAVIS STREET, SAN FRANCISCO, CAL.

Warehouse and Wharf at Port Costa.

CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.

Money advanced on Grain in Store at lowest possible rates of interest.

Full Cargoes of Wheat furnished Shippers at short notice.

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GRASS and CLOVER SEEDS, CALIFORNIA FRUITS, POTATOES, BEANS, HONEY,
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505 and 507 SANSOME STREET, - - - SAN FRANCISCO, CAL.
IN GREEN AND DRIED FRUITS, NUTS, Etc. DESICCATED COCONUT, Manufacturing
every day. Ask your Grocer for Pioneer brand. It is the best and cheapest in the world. Medals
awarded in all Fairs where exhibited.

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Hardware and Groceries
AS CHEAP AS THE CHEAPEST.

Agents for Studebaker Wagons, Carriages and Buggies, Oliver Plows,
and Cassidy Sulky and Gang Plows. Country Orders Solicited.

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A GREAT SACRIFICE!

On account of the death of F. A. Briggs, Manager of the Pacific Coast
Branch of the Amesbury (Mass.) Carriage Factory, the whole stock of fine
light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for
sale at less than cost, to settle the estate.
C. GREGO, Administrator.

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TAYLOR'S FUMA CARBON BISULPHIDE For Killing Squirrels, Gophers, Prairie Dogs

AND OTHER BURROWING ANIMALS.

This article is specially prepared for this purpose, and will give a better return for the money than any other
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Get a trial order from your Druggist and see for yourself.

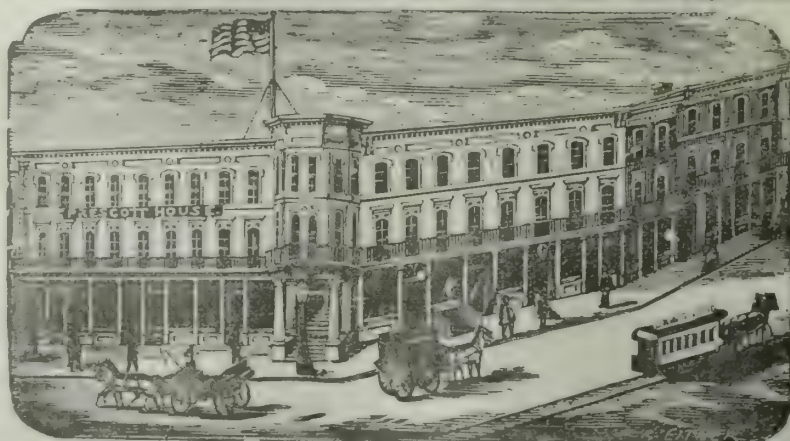
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FOR SALE BY ALL DRUGGISTS.

Directions for use with each package.

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S. W. Corner Kearny and Montgomery Avenue, San Francisco.

Free Coach to and from the House.

J. W. BEOKER, Proprietor.

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309 and 311 Sansome St., San Francisco,

SOLE AGENTS FOR

Bull Dog brand Bass' Pale Ale and Guinness Extra Stout.
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Kornafull India Tea, Calcutta.
New Lambton Coals, Newcastle, N. S. W.
Mexican Phosphate & Sulphur Co., Superphosphate Fertilizer.

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CALIFORNIA AND OREGON PRODUCE,

Green and Dried Fruits,
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SUCCESSORS TO

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501, 503, 505, 507 and 509 Front Street
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GREEN and DRIED FRUITS.

Poultry, Eggs, Game, Grain, Produce and
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MOORE, FERGUSON & CO.,

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Members of the San Francisco Produce Exchange

Personal attention given to Sales and Liberal Advances made on Consignments at low rates of interest.

[ESTABLISHED 1864.]

GEORGE MORROW & CO., HAY and GRAIN COMMISSION MERCHANTS,

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SHIPPING ORDERS A SPECIALTY.

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CONSIGNMENTS SOLICITED.

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EVELETH & NASH, COMMISSION MERCHANTS And Dealers in Fruit, Produce, Poultry, Game, Eggs, Hides, Fats, Tallow, etc., 422 Front St., and 221, 223 225 and 227 Washington St., San Francisco.

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WITTLAND & FREDRICKSON, Commission Merchants. All Kinds of Green and Dried Fruits. CONSIGNMENTS SOLICITED 824 Davis St., S. F.

STORAGE

We have some extra room
suitable for storage purposes,
which we will let on
very reasonable terms.
DEWEY & CO., 220 Market street, San Francisco, Cal.

VACAVILLE VATICINATIONS.—Our friend "G" writes under date of March 25th: The weather has cleared up and is pleasant and warm, with the exception of a north wind. Ten inches of rain fell the last storm, and from 20 to 30 inches from Vacaville to Putah creek in various places for the season. The prospect for the fruit crop is growing beautifully less. Of apricots, around Vacaville, there will not be over half a crop. Many of the Crawford peach trees have shed nearly all their blossoms, but it is too early to tell all about the peach and cherry crop. We have had no frost since the storm. Grass and weeds are growing very fast, and in some orchards that were not plowed before the last rain, the weeds will have to be mowed before plowing.

WATCH PRESENTATION.—L. U. Shippee, Mayor of Stockton, was President of the State Agricultural Society for 1887 and 1888, and as such gave general satisfaction. The society each year allows the President \$250 for incidental expenses. This Mr. Shippee refused to draw, and the Directors took the cash and purchased a fine gold open-faced, Jurgenson split-second watch, which was presented to him last evening in the meeting of the Board of Directors. It is engraved as follows: "The State Agricultural Society of California to its President, Hon. L. U. Shippee, 1887 and 1888." Mr. Shippee was taken very much by surprise, and responded to the presentation speech in a feeling and appropriate manner.—*Record-Union, March 22.*

GRAPE-GROWERS' MEETING.—A meeting of the Grape-Growers' and Wine-Makers' Association of California will be held at the rooms of the Viticultural Commission, Platt's hall, San Francisco, on Friday, March 29 h, at 7:30 o'clock P. M. The following are subjects of discussion: Clarification of wines, opened by H. W. Crabb; grafting vines, opened by C. J. Wetmore; sulphuring vines, opened by J. B. J. Portal.—E. H. RIXFORD, Secretary.

RIVERSIDE ILLUSTRATED.—Our old acquaintance, H. J. Radisill, has compiled and the Riverside Board of Trade has published a very pretty and interesting pamphlet, treating of the history, products and present status of "the city among the orange groves," and lavishly adorned with full-page views, characteristic of the place and its chief industry.

POPULAR PORKERS.—Andrew Smith, the well-known swine-breeder of Redwood City, informs us that his pig sales, since 1889 came in, have exceeded all expectations. He has orders ahead for Berkshires which take the youngsters off as fast as they are old enough for shipment.

HOLSTEIN FRIESIAN SALES.—H. P. Mohr of Mt. Eden has lately sold a Holstein-Friesian bull and two heifers to E. F. Howell, Ball's Ferry, Shasta county. Mr. Mohr still has for sale a number of choice cattle of the same popular breed.

OREGON APPLES.—John Swinden of the Applegate valley, says the Grant's Pass Courier, on a carload of appleshipped to San Francisco, netted a cash return of a trifle less than 60 cents a box.

A MEAN FORGER'S SENTENCE.—Robert Sigel, son of Gen. Franz Sigel, who pleaded guilty to forging pension checks, was sentenced by Judge Benedict in New York to six years' imprisonment at hard labor.

FILTHY GANGS of begging gypsies with dancing bears and monkeys are complained of in different portions of the State.

Natoma Land and Water Company.

Messrs. Bovee, Toy & Co. will sell at public auction, April 6 h, subdivisions of one of the finest tracts of land in California. This section has become noted as one of the favored regions for raising fruit. The terms are very liberal, and include town lots and five and ten acre lots, with privilege of water at a very low cost.

Parties who wish to secure a home with all the advantages of a salubrious climate, railroad facilities and an investment that will prove profitable, should attend this sale.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3.00 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Successful Patent Solicitors.

As Dewey & Co. have been in the patent soliciting business on this Coast now for so many years, the firm's name is a well known one. Another reason for its popularity is that a great proportion of the Pacific Coast patents issued by the Government have been procured through their agency. They are, therefore, well and thoroughly posted on the needs of the progressive industrial classes of this Coast. They are the best posted firm on what has been done in all branches of industry, and are able to judge of what is new and patentable. In this they have a great advantage, which is of practical dollar and cent value to their clients. That this is understood and appreciated, is evidenced by the number of patents issued through their SCIENTIFIC PATENT AGENCY (S. F.) from week to week and year to year.

California Products at Chicago.

CHICAGO, March 27.—Oranges were a trifle weaker for California and unchanged for other kinds, with Floridas scarce and firmly held. California Riverside, \$7 box, \$2.50; do, undesirable sizes, \$2.25 @2.40; California San Gabriel, \$7 box, \$2@2.50; California Duarte, \$2.25@2.50; California Navels, box, \$2@2.75; do (Washingtons), \$4.25@4.50.

California dried fruits remain quiet and dull, and what little inquiry there exists continues limited to peaches and choice raisins. The range of prices is as follows:

Apricots—Evaporated, bleached, bxs, \$7 lb, 11@12c; do, sun-dried, according to quality, 6@8c. Peaches—Evaporated, bleached, unpeeled, bxs, 8@9c; do, sun-dried, bleached, unpeeled, bxs, 6@7c; do, sun-dried, unbleached, unpeeled, bxs, 5@5½c; do, sun-dried, peeled, bxs, 10@12c; do, do, bxs, 10@10½c; do, evaporated, peeled, bxs, 12@13c. Nectarines—White, evaporated, bleached, bxs, 7@8c; do, sun-dried, bleached, bxs, 6@7c; do, red, evaporated, bchs, bxs, 6c; do, red, sun-dried, bchs, bxs, 4@5c. Plums—New, pitted, bxs, 6½@7c; new, unpitted, bxs, 4@7c. Prunes, according to size, in bxs, and dry, 5@9c; do, do, damp, 3@4c; do, Silver, 10@12c½; do, Hungarian, bxs, 3@5c.

Raisins—Loose Muscates, new, \$7 box, \$1.35@1.65; do, London layers, new, \$1.65@2.

Hops remain about steady at late quotations, but the market is without special activity, for the demand is of only moderate extent. Receipts are small and stock is only moderate. Washington Territory, best, 24c; good to prime Pacific Coast, 20@22c; fair to good do, 18@20c.

Beans were quoted a trifle easy, with arrivals fair of late and the supply fully equal to the demand, so as to make buyers slightly indifferent. Inquiry is mainly for Navies, and buyers call only for choice hand-picked, leaving common stock of all kinds to rule rather easy. Quotations range: Lima beans, California, 5½c @7 lb.

Shorthorn Sale.

Attention is called to the advertisement of a sale by Killip & Co., at Agricultural park, Sacramento, of a fine and large lot of pure-bred Shorthorn cattle from the well-known herd of Joseph Combs of Linneus, Missouri. The catalogue which we have before us shows an offering of 93 animals, bulls and cows, mostly yearlings and two-year olds—a fine lot of young stock likely to captivate the purchaser. The catalogue is very full and should be obtained from Killip & Co. by all interested in improved live-stock.

SAN DIEGO COUNTY'S acreage of wheat and barley this year is estimated by the Sun at 150,000. This, at an average yield of 15 bushels to the acre, would give a total crop of 2,250,000 bushels of grain. The acreage of Los Angeles county is put at about the same figures by A. H. Denker.

TO SUBSCRIBERS.—Members of the P. of H. now receiving the regular editions of the RURAL PRESS are advised to try our Grange editions instead for awhile. The cost is the same for each edition. We will transfer names from either to the other on receiving a written request therefor.

DID IT ELECT HARRISON?

The following appeared in a Minnesota paper: "Members of the Democratic party have been using all subterfuges to account for their overwhelming defeat, and numerous are the causes alleged.

"I was talking with several of the vanquished on Fourth street the other day, opposite a bill board, and one of the party exclaimed: 'If it had not been for the closeness of the National Committee in the expenditure of money, we would have elected our man. The Republicans advertised their man like a circus.' Several of the party remarked that no advertising was done except small announcements in the papers, and a few 'hangers' on the dead walls.

"'Hangers?' said our informant. 'What do you call that but a circus poster?' pointing to a twelve-sheet medicine poster on the bill board, bearing the cuts of Gen. Harrison and his grandfather.

"If the Democrats had advertised like that, Cleveland would have been re-elected."

The poster referred to was one of the familiar black and white Log Cabin Sarsaparilla posters sent out by an enterprising firm engaged in the manufacture of old log-cabin home-cures, under the name of Warner's Log Cabin Remedies, and among other equally valuable articles includes the famous Log Cabin Sarsaparilla, which is everywhere recognized as the best of all spring medicines and stands without a rival for the cure of all disorders which are the results of impure blood.

The springtime of the year is the season when the system needs renovation; the long winter has caused the blood to become filled with impurities.

There exists no better means to aid and strengthen the system at such an urgent period than the use of Warner's Log Cabin Sarsaparilla, which speedily restores the blood to a pure and healthy state, which insures health and happiness.

The reputation of the firm putting out the medicine is above reproach, and is the same firm which manufactures Warner's Sale Cure, the standard remedy for the cure of all those diseases peculiar to the kidneys as well as those which are the results of disease in those organs, and which has met with such phenomenal success for the past ten years.

We understand that the posters referred to made their appearance in many parts of the country some time prior to the Chicago Convention which nominated Gen. Harrison as a candidate for the Presidency—hence the use made of the portraits of the Harrisons, father and grandson—was either the result of remarkable political foresight or in accordance with the historical association of the old Log Cabin with the name of Harrison.

SHEPHERD PONIES,

36 to 40 inches high, with grand action.

REGISTERED SUSSEX BEEF CATTLE.

Rivals of the Shorthorns and Herefords.

REGISTERED BRITTANY DAIRY CATTLE.

The Brittany is universally considered the Cow par excellence for the Dairy.

DORSET HORN SHEEP,

Which will produce Twin Lambs twice yearly.

ROBERTSON & CO.,

(Exporters. Established 1864.)

WORKING, SURREY, ENGLAND.

Correspondence Solicited.

ZIMMERMAN FRUIT EVAPORATOR.

Four Sizes Made.

Over 20,000 Now Sold!

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Revised Annual Catalogue FOR 1889.

Agents Wanted Everywhere

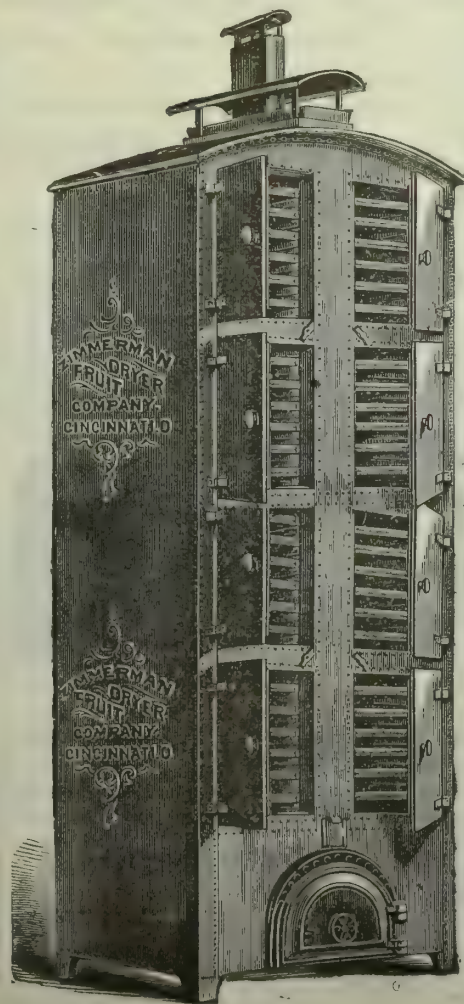
WRITE FOR TERMS.

JAMES LINFORTH,

Gen'l Agent for Pacific Coast,

37 Market Street,

San Francisco, Cal.



Grand Special Excursion
—TO—
Natoma and Folsom

Good Opportunity!

—TO ACQUIRE—

A SMALL TRACT

—OF THE—

Best Fruit and Vineyard Land

—IN—

CENTRAL CALIFORNIA.

BY ORDER OF THE

Natoma Water & Mining Company

BOVEE, TOY & CO.

—WILL SELL—

AT AUCTION,

SATURDAY,

SATURDAY - - - APRIL 6th, 1889,
ON THE GROUNDS.

1,000 Acres of Cultivated Land,
Suitable for Fruit, Vines and Vegetables, in subdivisions of
5, 10 and 20-Acre Tracts.

—ALSO—
180 Business and Residence Lots in the Town of Folsom.

The tract, offered in subdivisions, is situated on the south side of the American river, 18 miles from the city of Sacramento, and on the Sacramento & Placerville Railroad.

Orchard Lands.

Two hundred acres are now planted in fruit in bearing. The balance of the land, some 800 acres, is now ready to set out in fruit or vineyard.

Facilities for Irrigation.

Water for irrigation will be furnished. All of the land now offered for sale lies below the company's ditch and can consequently be irrigated therefrom. The irrigating ditches run directly through the tract. Water for domestic purposes can be obtained at a depth of 50 feet.

Transportation Facilities.

The transportation facilities—a very important item to all fruit-growers—are of the very best, the Sacramento & Placerville Railroad running through the orchard its entire length, having a receiving depot in the most central location on the tract, so that no fruit has to be hauled more than half a mile.

Why the Land Offered is a Profitable Investment.

The soil is of the best, being sandy loam and sediment, and adapted to the choicest quality of all varieties of fruits and vegetables. The property is located in that portion of the State where all fruits ripen early, and naturally command the highest prices.

The property is also situated in the central part of California, and in the center of a great fruit-producing section, and immediately adjoining the principal markets of the Coast—by the quick transportation facilities which it enjoys.

The Company will assist all purchasers of their lands by giving them employment in preference to all others, furnish them water for irrigation at very low rates, assist them by their knowledge of the property in planting the different varieties of fruits and vines on the lands to which they are best adapted, and will take care of the orchard tracts for one year at the actual expense of labor, thus saving the purchaser the expense of making improvements immediately; furnish pasture for stock, and in fact they will at all times be prepared to render such assistance to all purchasers that will be of benefit to them in cultivating, selling and shipping the products of their purchase.

The products of the lands of the NATOMA WATER AND MINING COMPANY have always commanded the highest market prices both on the Pacific Coast and in the Eastern market. The fruit is loaded in the cars on the property and is transported intact to its destination in the East and other markets, a facility of transportation that is of the greatest importance, and with these great advantages prosperity is assured, and to-day there is no better field for solid and profitable investment on the Pacific Coast, as these lands are offered at prices below other lands not so advantageously located, and not paying an immediate income.

The portion of the property set out in orchard is all in bearing, thus purchasers will at once receive an income, thereby enabling them to pay for the land from the products.

Good Soil, Abundance of Water,
Healthy climate, easy of access, shipping facilities, employment to purchasers, close proximity to schools and churches, with the low prices and easy terms, combine to make the purchase of these lands the most profitable investment ever offered, and being a part of the lands of the NATOMA WATER AND MINING COMPANY, who have invested a large amount of money in improvements, consisting of dwellings, wine cellars, packing-houses, canals, ditches, etc., which are necessary to handle the products of their extensive vineyard and of the lands we now offer, is a sure guaranty that we have not over-estimated the value of these lands as profitable investment.

GRAND SPECIAL EXCURSION

Will leave Market-street Ferry at 8 A. M., Saturday, April 6, 1889.

\$3—ROUND-TRIP TICKETS—\$3

OAKLAND (16th-St. Depot), 8:15 A. M., ROUND-TRIP \$3 00

VALLEJO JUNCTION, 9:00 A. M., ROUND-TRIP \$3 00

BENICIA, 9:30 A. M., ROUND-TRIP \$2 00

DAVISVILLE, 10:30 A. M., ROUND-TRIP \$1 50

SACRAMENTO, 11:15 A. M., ROUND-TRIP \$1 00

These special excursion tickets can be obtained THURSDAY and FRIDAY, April 5th and 6th, at the office of BOVEE, TOY & CO., 19 Montgomery street, and on the morning of the excursion at the ferry foot of Market street. Tickets from other points can be purchased on the train en route.

A Fine Collation Will Be Served on the Grounds.

TERMS OF SALE—One-third cash; balance in 1, 2 and 3 years at 7 per cent.

For maps, catalogues and further particulars apply to
BOVEE, TOY & CO.,
Real Estate Auctioneers, 19 Montgomery Street, San Francisco.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

HORSES AND CATTLE

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky, Arabian, and other horses and horses and horses.

DENNIS & MESSER, Fresno, Cal., breeders of thoroughbred and graded Clydesdale horses.

EL RUIBAR RANCH, Los Angeles, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information of same, A. H. Smith, manager.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton,) Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Short-horns & Herefords, Wildflower Farm, Fresno or Sac'to.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKLEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. BOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAXE & SON, Lick House, San Francisco, Cal Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

GEO BEMENT & SON, Maple Grove Farm, Oakland P. O., breeders of Ayrshire Cattle & Essex Swine.

F. H. BURKE, 401 Montgomery St., S. F.: Registered Holsteins; winners of more first prizes, sweepstakes and special premiums this year than any herd on the Coast. Pure Berkshire Pigs. Catalogues.

H. P. MOHR, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

P. PETERSEN, Sites, Colusa Co., importer & breeder of registered Shorthorn Cattle. Young bulls for sale.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

POULTRY.

O. J. ALBEE, Lawrence, Cal. W. Langhans, W. Wyandottes, P. Rocks, L. Wyandottes, B. Langshans & B. Leghorns. Eggs, white varieties, \$5 & \$3, others, \$2.

E. H. FREEMAN, Santa Clara, Cal. Best strains of thoroughbred Poultry. Send stamp for circular.

W. G. ELLIS, 954 Broadway, Oakland, importer and breeder of Black Leghorns and Silver Gray Dorkings.

PIEDMONT POULTRY YARDS, cor. Piedmont Ave. & Booth St., Oakland. Wyandottes, L. Brahmas, P. Rocks, Langshans, B. Leghorns, B. B. R. G. Bantams. Eggs \$2 for 13; circular free. Mrs. J. N. Lund, Box 116.

WHITE & WOOD, Danville, Cal. Pure eggs for hatching; eight varieties; send for circular.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

R. G. HEAD, Napa, Cal., breeder of the choicest varieties of Poultry. Each variety a specialty. Send for new Catalogue.

T. D. MORRIS, Agua Caliente, Cal.; pure-bred fowls.

GALT POULTRY YARDS, S. S. Palin, prop'r, Galt, Sac'to Co., Cal., importer and breeder of thoroughbred Ply. Rocks, Lt. Brahmas, Langshans, Wyandottes & P. Cochins; eggs, single sitting \$3, 3 sit'gs \$7.

A. C. RUSCHHAUPT (successor to Jas. T. Brown), P. O. Box 43, Station B, Los Angeles, Cal., yard on State St., Brooklyn Heights, importer and breeder of all leading thoroughbred Fowls, and Eggs, at reasonable prices. Circular free.

W. O. DAMON, Napa, \$2 each for choice Lt. Brahmas, Wyandottes, P. Rocks, White and Brown Leghorns. Eggs, \$2 per 13. Beet seed for sale.

SHEEP AND GOATS

J. B. HOYT, Bid's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

W. WOOLSEY & SON, Fulton, Cal., importers & breeders Spanish Merino Sheep; ewes & rams for sale.

R. H. ORANE, Petaluma, Cal., breeder and importer, South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine. Large graded rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

SWINE.

TYLER BEACH, San Jose, Cal., breeder of thoroughbred Berkshire and Essex Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circular free.

JOSEPH MELVIN, Davisville, Cal., Breeder of Poland China Hogs.

ANDREW SMITH, Redwood City, Cal.; see adv't.

IMPORTANT!

That the public should know that for the past Eighteen Years our Sole Business has been, and now is importing (Over 100 Carloads) and breeding improved Live Stock—Horses, Jacks, Short Horns, Ayrshires, and Jerseys (or Alderneys) and their grades; also, all the varieties of breeding Sheep and Hogs. We can supply any and all good animals that may be wanted, and at very reasonable prices and on convenient terms. Write or call on us. PETER SAXE and HOMER P. SAXE. San Francisco, Cal., Oct. 22, 1888. PETER SAXE & SON, Lick House, S. F.

ANNUAL COMBINATION SALE.

Trotting Bred Stallions, Mares and Geldings

Bay District Track

ON THURSDAY, MAY 9, 1889.

Selections will be offered from Breeding Farms of M. SALSBUURY, M. W. HICKS, F. H. BURKE, MRS. SILAS SKINNER and other noted breeders. Entries will close April 1st. Only pedigreed stock will be received. Apply to

KILLIP & CO., Auctioneers,
22 MONTGOMERY ST., SAN FRANCISCO

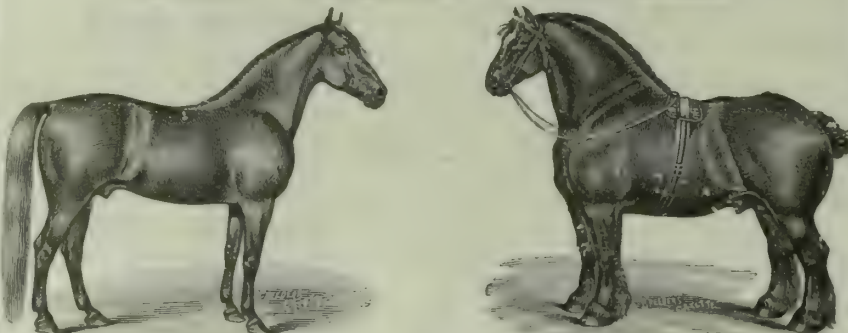
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—IMPORTER OF—

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AND CLYDESDALE HORSES.

Fort Collins, Colorado.



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The Cleveland Bays are the stylish high-stepping carriage horses which have attracted so much attention of Americans visiting England. Large enough to draw a wagon or plow, docile in disposition and uniform in color.

The Hackney, Shire and Clydesdale breeds, for specific purposes, are the most valuable and noted stock in the world.

Write for full particulars. Prices and Terms furnished on application. Visitors welcome.

A large stock always on hand and thoroughly acclimated.

CHAMPION GOLD MEDAL STUD!

250 CLEVELAND BAYS AND ENGLISH SHIRES

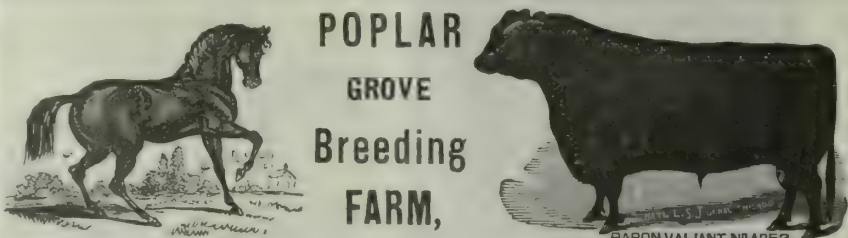
Of the highest breeding and most popular strains. We carry a large stock of young, vigorous stallions and mares at all seasons, imported young and matured on our farms, thus fully acclimated and sure breeders. Prices low and terms easy.

150 HOLSTEIN-FRIESIANS

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Country Orders Promptly Filled. Consignments Solicited.

P. O. Box 1928. 400 & 402 DAVIS ST. and 122 WASHINGTON ST., SAN FRANCISCO.

SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with record better than 2:30, and the dam; 15 with records from 2:15 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp Emancipation. Third dam by Bertrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbridge, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:15 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son of Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:28. Third dam by Cripple, a son of Medo (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Rydyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkets, 2:24, and Tamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorne, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, 6th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mausinet, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:30 and better. Second dam Fanny Malone, record, 2:36, trial, 2:28, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.
Vol. 1, American C. B. S. R.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportsman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.
Foaled 1883.

Winner first premium Illinois State Fair, 1886; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" class, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at St. Yorkshire beating 20 others.

First dam Whalebone (355), first premium St. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16 1/2 hands high, weight 1600 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 248; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teesdale, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

The Standard Bred and Cleveland Bay Stallions

Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Stock Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

PASTURAGE, \$4 per month; Hay and Grain, \$10. Best care taken, but no liability assumed for accidents or escapes.

Mares sent to Fashion Stables, Oakland, Benner's Stables, Martinez, or to Geary & Grindle's Stables, Hayward, will be forwarded to Farm free of Charge.

Address:

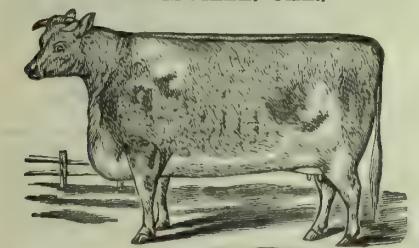
COOK STOCK FARM,
DANVILLE, CAL.

GRAND AUCTION SALE!
—OF—
NINETY HEAD
FIRST-CLASS
Shorthorn Cattle
AT 1 P. M. AT
AGRICULTURAL PARK,
SACRAMENTO,
—ON—
Thursday, April 4, 1889.

By direction of MR. JOS COMBS, of Combs & Wilkerson, Bankers, Linneus, Missouri, we will offer, on the above date, ninety head of PURE-BRED DURHAM CATTLE, consisting of forty head of BULLS and fifty head of COWS and HEIFERS of the best known families. These cattle have been bred and selected by Mr. Combs, and for quality and individual merit have no superior. They were carefully selected from the very best herds in Kentucky and Missouri. Mr. Combs will be prepared to give full guarantee as to soundness and non-existence of disease in section of country from which these cattle are brought; and certified pedigrees will be furnished with each animal, showing its breeding.

Catalogues will be ready shortly. Terms at sale.
KILLIP & CO., Auctioneers,
22 Montgomery St., S. F.

P. S. CHILES,
DAVISVILLE, CAL.



Breeder of SHORTHORN CATTLE
Of the best families. A choice lot of young Bulls and Heifers for sale, 4 years old and under, from the celebrated Kirklevington Oxford Count, 36723.

COLTS BROKEN.

THE SOUTHER FARM,
One and a half miles northeast of San Leandro, Alameda County, has every facility for Breaking Colts properly. Rates very reasonable. Horses boarded at all times.

THE SOUTHER FARM,
GILBERT TOMPKINS, Proprietor,
P. O. Box 149, San Leandro, Cal

PERCHERON HORSES ONLY.

I offer for sale at my ranch, on Clear Lake, near Lakeport, pure-bred Percheron Mares and Horses of the choicest families. Pedigrees recorded in the Percheron Stud Book of France and America. They are principally the Brilliant, Caesar strains of blood. Address
WM. B. COLLIER,
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FOR SALE.

Three Norman Percheron Stallions, and Three Holstein-Friesian Bulls.

ADDRESS,
EDWARD STEIGER,
Agua Caliente, Sonoma Co., Cal.

TWO SHORTHORN BULLS FOR SALE.

One and two years old; Reds; are Bred blood, of good milking families; are good animals. Recorded in Vols 33 and 34. Having no place for them, must be sold.

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P. H. MURPHY,
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MANHATTAN FOOD FATTENS HORSES.

It prevents disease, regulates the bowels and urine, strengthens the kidneys, prevents scouring, colic and leg swelling, loosens the hide, promotes the appetite, cures cough, destroys worms, and produces a fine glossy coat. \$7.50 per 100 pounds. Manhattan Egg Food, in bulk, 12 cents per pound. Ask your dealer, or send to 576 Howard Street, San Francisco.

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Of Short Horn Cattle and Dairy Cows.

Catalogues and Prices on application to
ROBERT ASHBURNER,
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99 Sample Styles of Hidden Name and
Silk Fringe Cards, Night of Hand Trucks, Reclining, Discharge, Pos-
sion, Confronting, Games, and how you can make \$10 a day at home. All
for a 5 cent stamp. HOME AND TOURS, CABLE, OREG.

POULTRY, ETC.
OAKLAND POULTRY YARDS,
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Manufacture of the PACIFIC INCUBATOR and BROODER. Agency of the celebrated silver finish galvanized wire netting for Rabbit and Poultry-proof fences, the Wilson Bone and Shell Mill, the Pacific Egg Food, and Poultry appliances in great variety. Also every variety of land and water Fowl, which have won first prizes wherever exhibited. Eggs for hatching. The Pacific Coast Poultryers' Hand-Book and Guide, price, 40c. Send 2c. stamp for 60-page illustrated circular to the PACIFIC INCUBATOR CO., 1317 Castro St., Oakland, Cal.

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BLACK MINORCAS, RED CAPS,
Silver-Laced Wyandottes, White Plymouth Rocks, Light Brahmas, Partridge Cochins, Buff Cochins, Plymouth Rocks, White Crested Black Polish, China Langshans, Black Leghorns, White Leghorns, Brown Leghorns, Rose-Comb Amer can Dominique, Thoroughbred Berkshire Pigs
Large lot of young birds ready for sale. Send for Circulars.
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The Halsted Incubator Co.
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Simple, Perfect and Self-Regulating. Hundreds in successful operation. Guaranteed to hatch larger percentage of fertile eggs at less cost than any other hatchery. Send 6c for illus. Cata. **GEO. H. STAHL, Quincy, Ill.**

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Silver Finish Brand.
FOR POULTRY & Rabbit-Proof Fencing
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FOR HARVESTING and CLEANING MACHINES
Manufacturers of all kinds of Perforated Metal, Lip and Lip Hook Screens, round and slotted, or any other kind desired for cleaning and separating grain. Farmers will please take notice that the metal screens do not clog or choke up as do the old wire screens heretofore in use. Also manufacturers of Quartz Screens. Information by mail. **California Perforating Screen Co., 45 & 147 BEALE ST., S. F.**

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VETERINARY SURGEON,
Member of the Royal College of Veterinary Surgeons, London, England.
GRADUATED APRIL 22, 1870.
Advice by Mail, \$2.
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Open Day and Night. Telephone, No. 3369.

BEST TREE WASH.
"Greenbank" 98 degrees **POWDERED CAUSTIC SODA** (tests 99.3-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by
T. W. JACKSON & CO.,
Manufacturers' Agents,
104 Market St. and 8 California St., S. F.

ANDREW SMITH,
IMPORTER AND BREEDER OF THOROUGH-BRED
(RECORDED)

DISHFACED BERKSHIRE PIGS,
IMPROVED POLAND-CHINA PIGS,
SHROPSHIRE DOWN SHEEP.
Young Stock for sale at reasonable prices. Every animal guaranteed.
OFFICE—218 California St., San Francisco. **REDWOOD CITY, CAL**

Attention, FARMERS, FRUIT GROWERS, Everybody!

RELIABLE AGENTS STARTED IN BUSINESS WITHOUT CAPITAL.
Write for Particulars. My Agents are making from \$5 to \$30 per day. It has become an established fact that

To Get Perfect Fruit You Must Spray Your Fruit Trees.

There is nothing better for this purpose than
Lewis' Combination Force Pump.
It makes 3 complete machines, as shown in cut, worth \$12. Made of polished brass. Parts interchangeable. Each machine complete in itself. Just what is needed by every Orchardist, Gardener, Nurseryman, Farmer, Florist and Stockman. To introduce I will send one prepaid to any Express Station in the U. S. or Canada for \$5.00. I also give a valuable illustrated book just published, entitled "The best ways and means of destroying the insects injurious to the Farmer, Orchardist and Fruit Grower," to each purchaser of a pump. The receipts alone in this book are well worth \$5. Another new improvement just added is
LEWIS' PATENT SPRAY ATTACHMENT FOR FRUIT TREES.

This makes a very fine and beautiful spray and you can change from solid stream to spray instantly while pumping. It is endorsed and recommended by the leading entomologists and agriculturists of the U. S. It has been tested thoroughly, and is pronounced to be the best, most powerful, easiest working and cheapest first-class hand pump in the world. It will spray a ten-acre orchard in a single day, by actual test, and do the work thoroughly. Regular retail price \$6; weight, 4½ pounds; length, 2 inches. I also furnish separate the
POTATO-BUG EXTERMINATOR OR AGRICULTURAL SYRINGE.

The machine will spray, as shown in center of cut; price, post-paid, zinc tube, \$1.25; polished brass, \$1.75.
Over 15,000 of these Machines Sold in Seven Months.

I challenge the world for their equal. For syringing fruit trees infested with insects of any kind, they stand unrivaled. Send for Illustrated Catalogue, Price List, Terms to Agents, etc. I give the name and address of many of my agents who have made a profit of from \$10 to \$30 on a single day's sales; also a long list of my agents, each of whom has bought from \$50 to \$2000 worth of these goods in from one to three weeks' time. Many of my agents are farmers, who make from \$10 to \$20 per day selling these goods. I give the largest profits and furnish the fastest selling article in the United States.

I Offer a Special Prize Worth \$75 to the Agent
Who sells the largest amount of my goods in the first three weeks of his canvassing. Write for particulars. You should apply for territory at once, as it is being taken up rapidly. **GOODS GUARANTEED AS REPRESENTED OR MONEY REFUNDED.** Address,
P. C. LEWIS, CATSKILL, N. Y.

FOR THE MYSTERIOUS VINE DISEASE. ONGERTH'S INSECTICIDE POWDER.

A SURE CURE
For all Diseases and Parasitic Growths on
FRUIT TREES and VINES.
15,000 Pounds
Shipped to the San Gabriel Valley, Los Angeles County, where it has been found to be a cure for the new and dreaded Vine Disease. This Disease is slowly and surely creeping Northward. Treat your vines before it is upon them. No preparation genuine without this trade-mark.
Manufactured by the **ONGERTH GRAFTING COMPOUND CO., 210 & 212 Davis St., San Francisco,** to whom all orders should be addressed. Samples and prices submitted on application. Also manufacturers of the
ONGERTH LIQUID TREE PROTECTOR. ONGERTH GRAFTING COMPOUND.

OUR SPRAY NOZZLE
Can be made to throw from the finest spray to a solid stream in an instant, therefore it cannot be clogged. Price, \$1, postage paid.

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BEST APPARATUS ON THE MARKET.
HUNDREDS NOW IN OPERATION BY FRUIT-GROWERS, and highly commended. It throws a continuous spray for thirty minutes without working the pump. Send for Circular and Testimonials.
BEAN SPRAY PUMP CO., Los Gatos, Santa Clara Co., Cal.

LARGEST STOCK OF
SADDLERY AND HARNESS
On the Pacific Coast. Wholesale and Retail.
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C. L. HASKELL No. 10 Bush St. S. F.
PIONEER BOX COMPANY,
Manufacturers of all kinds of
FRUIT and PACKING BOXES,
Grape and Berry Baskets,
Cor. Front and M Sts., **SACRAMENTO.**

S. H. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, March 27, 1889.

With a generally easy money market and clearer skies, trading in leading articles of produce was more active the past week, although toward the close a slightly bearish feeling was exhibited by operators in wheat, but as the available surplus in this State is limited, not much of a shading in prices was established. The weather continues to be all that can be desired to produce large crops of cereals and farm produce in general. The European and Eastern markets for futures appear to have been unfavorably influenced by the fine growing weather on this coast. The following is today's cable:

LONDON, March 27.—Wheat—dull. California spot lots, 75 3/4 d to 75 5/4 d; off coast, 37s @ 37s 3d; just shipped, 37s; nearly due, 37s 3d; cargoes off coast, quiet; on passage, dull; Mark Lane wheat, quiet; English country markets, easier; French, slow; wheat and flour in Paris, steady; weather in England, cold.

Foreign Grain Review.

LONDON, March 25.—The *Mark Lane Express*, in its review of the British grain trade for the past week, says: Despite the stormiest equinox in years, the weather was propitious for tillage. Although the estimated supplies of breadstuffs for the past week were from 80,000 to 100,000 qrs. below the wants of consumers, the tone of the trade for English wheat was not improved. Indiscreet and heavy threshings of wheat, already wanting in condition, during the rainy periods of February and the early part of March, have inundated many local exchanges with grain which millers find cannot be used until it is mixed with drier and stronger foreign grain. Foreign wheat fluctuated, prices declining 6d and then advancing 6d for California. Good Russian wheat is steady, but there were large offerings of inferior quality, and a decline was frequently allowed to clear up stock. Indian wheat is firmer. New crop is not expected to equal that of 1888. Flour is weaker. Corn is slow, but the pressure of newly arrived American caused a fall in Liverpool; sellers were cheap. Foreign barley is firmer. Oats and rye are unchanged. At today's market, mild and showery weather was averse to trade, but wheat was steadily and flour firmly held. British malted barley was unaltered, being quoted at 3s., and California at 42s. Grinding barley is steady; malt, firm. Beans and oats were cheaper. Corn was not improved. American breadstuffs were steady. Oats were held 3d @ 6d lower.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Mar.	Apr.	May	June	July	Aug.
Thursday	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d
Friday	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d
Saturday	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d
Monday	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d
Tuesday	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d	78 1/2 d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday	37s 3d	37s 3d	37s 3d	Inactive.
Friday	37s 3d	37s 3d	37s 3d	Firmer.
Saturday	37s 3d	37s 3d	37s 3d	Steady.
Monday	37s 3d	37s 3d	37s 3d	Firm.
Tuesday	37s 3d	37s 3d	37s 3d	Quiet.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day	Mar.	Apr.	May	June
Thursday	91 1/2	92 1/2	93 1/2	94 1/2
Friday	92 1/2	93 1/2	94 1/2	95 1/2
Saturday	93 1/2	94 1/2	95 1/2	96 1/2
Monday	94 1/2	95 1/2	96 1/2	97 1/2
Tuesday	95 1/2	96 1/2	97 1/2	98 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

Day	Mar.	Apr.	May	June
Thursday	91 1/2	92 1/2	93 1/2	94 1/2
Friday	92 1/2	93 1/2	94 1/2	95 1/2
Saturday	93 1/2	94 1/2	95 1/2	96 1/2
Monday	94 1/2	95 1/2	96 1/2	97 1/2
Tuesday	95 1/2	96 1/2	97 1/2	98 1/2

NEW YORK, March 27.—Wheat—90 1/2 c for cash, 90 1/2 c for May, 91 1/2 c for June and 91 1/2 c for July.

CHICAGO, March 27.—Wheat—98 1/2 c for cash, 98 1/2 c for May, 96 1/2 c for June and 89 1/2 c for July.

Local Markets.

	WHEAT.	S. S.	B. S.	B. '89.	'S. '89.	'S. '89.
Thursday	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2
Friday	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2
Saturday	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2
Monday	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2
Tuesday	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2	132 1/2

	BARLEY.	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday	78 1/2	78 1/2	78 1/2	78 1/2
Friday	78 1/2	78 1/2	78 1/2	78 1/2
Saturday	78 1/2	78 1/2	78 1/2	78 1/2
Monday	78 1/2	78 1/2	78 1/2	78 1/2
Tuesday	78 1/2	78 1/2	78 1/2	78 1/2

Eastern Wool Market.

NEW YORK, March 22.—*Bradstreet's* says: Wool shows no change in any market. Buyers are operating moderately and cautiously, taking little stock beyond their requirements for immediate consumption. Prices, however, are pretty well sustained, assortments being broken and stocks in the aggregate light. Desirable wool is scarce in the country as well as on the seaboard, and maintenance of the present values until the arrival of the new clip is generally anticipated. Texas advices are to the effect that the spring clip of that State will be of unusually good quality, and high prices are looked for by growers. Arrivals from Australia this spring are comparatively large, but shipments of Australian wool from London are small. The next series of sales at London opens on April 2d.

At Philadelphia there has been a fair inquiry for coarse, bright wools and for Territorial wools of all

kinds, but the latter are scarce. The general wool trade is quiet, but prices are steady. The slow demand excites some surprise, as it was expected that the depletion of manufacturers' stocks would have driven them into the market for fresh supplies before this time.

BOSTON, March 22.—This week's transactions in the wool market indicate a comparatively light business, and there is no prospect of any material improvement. No change can be made in the regular range of quotations, but on nearly all kinds of stock the tendency is still slightly in favor of buyers. The best grades of washed fleeces are held with a show of strength, because the supply is very small, but no sales of consequence are reported. The manufacturers are not anxious to buy except at concessions, but small lots that are best will be kept back until there is a greater demand. Considering that the season is so near its close, unwashed combings command particularly full rates. Total sales were 1,596,400 lbs.

The Wheat Yield.

WASHINGTON, March 21.—The March statistical report of the Department of Agriculture gives the average weight of wheat by States. The general average is 56.5 pounds to the bushel, the lowest of six years. In the spring wheat region the range is from 53.5 in Dakota to 55 in Nebraska. It makes the crop equivalent to 391,000,000 bushels of 60 pounds each, which means that the crop is actually less by nearly 25,000,000 bushels in weight than the quantity expressed in measured bushels.

Miscellaneous.

NEW YORK, March 25.—Raisins hold their demand.

There was a steady run for hides. The attempt to advance the best 1/4 c was unsuccessful.

In hops, there were light sales and not much offering. The best assortment went off fairly. The first grade of Pacific States now sell at 22c; others are unchanged, though there is some weakness in faulty stocks. Exports for the week amounted to 469 bales. Foreign hops have added considerably to the offering.

Local Markets.

BAGS—The price of grain bags has been advanced to 7 1/2 to 8c for spot, 8 1/2 to 8 3/4 c for June, and 8 1/2 c to 8 3/4 c for July. At the advance the demand shows a falling off.

BARLEY—The sample market for feed is without essential change. The call is still confined to actual requirements unless concessions are obtainable by buyers. Bright choice brewing is firmly held, owing to the reported small stock here. On Call, trading has been light and of bearish character, owing to good crop prospects. The following are to-day's Call Board sales:

Morning Session: Buyer season—100 tons, 77 1/2 c @ cwt. Afternoon Session: Buyer 1889—300 tons, 87 1/2 c. Buyer season—100 tons, 77 1/2 c; 500, 77c @ cwt.

BUTTER—Receipts continue very heavy, and as the outlet is limited, sellers have to make concessions to place large consignments. It is generally claimed that considerable is going into brine and also being put down solid, but as yet this way of disposing of the surplus has little effect on the market.

CHEESE—Heavy receipts and accumulating stocks cause a weak, demoralized market.

EGGS—The slight advance reported in our last issue combined with better roads caused heavy shipments to this city which created a weaker feeling. This feeling was still further increased by heavy receipts of Eastern. The consumption is very large.

FLOUR—The market is fairly steady. So far this month the export movement is larger than in February, the increase being in Europe.

WHEAT—The market for sample parcels has exhibited considerable strength, for any pronounced bearish movement was generally met by holders withdrawing from the market, compelling buyers pressed for supplies to pay full up, and at times a slight advance. On Call, futures have been dealt in only to a limited extent, due to the favorable growing weather. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—200 tons, \$1.43; 1500, \$1.43 1/2; 200, \$1.43 1/2; 1300, \$1.43 1/2; 1100, \$1.43 1/2; 900, \$1.43 1/2. Buyer season—100 tons, \$1.41 1/2; 1100, \$1.41 1/2; 200, \$1.41 1/2; 1100, \$1.42; 200, \$1.42 1/2 @ cwt. December—200 tons, \$1.40 @ cwt. Afternoon Session: Buyer 1889—400 tons, \$1.43 1/2; 700, \$1.43 1/2; 200, \$1.43 1/2; 400, \$1.43 1/2; 700, \$1.44; 100, \$1.44. Buyer season—100 tons, \$1.42 1/2; 500, \$1.42 1/2; 200, \$1.42 1/2; 1000, \$1.42 1/2; 100, \$1.42 1/2 @ cwt.

[COMMUNICATED.]

Market Information.

Produce Receipts

Receipts of produce at this port the past week were as follows:

Flour, qr. sks.	29,602	Middlings, sks.	2,484
Wheat, cts.	178,109	Alfalfa, "	320
Barley, "	14,522	Chicory, "	244
Rye, "	532	Broomcorn, bds.	541
Oats, "	5,356	Hops, bds.	1,525
Corn, "	3,317	Wool, "	41
Butter, "	2,718	Hay, tons	164
do bxs	1,062	Straw, "	3,350
Cheese, cts.	1,136	Wine, gals.	200
Eggs, doz.	160,016	Brandy, "	67
Beans, cts.	4,510	Raisins, bxs	352
Potatoes, sks.	19,052	Honey, cs.	
Onions, "	1,749	Walnuts, sks	
Bran, sks.	9,762		

Cereals.

An exchange says that quite a heavy movement of wheat to tide-water is expected by the railroad people as a result of the recent advance in prices, as well as of the abundance of rain, insuring good crops for the present season. The railroad agents say that there is a good deal of grain in warehouses along the different lines, and cars are now being ordered for its shipment.

The London *Agricultural Gazette*, March 4th, reports as follows: Cold and rather severe weather has prevailed during the past week, more especially over that portion of the English counties lying between the Severn and the Humber, a considerable amount of snow with very hard night frosts having been experienced in the eastern and southeastern districts. As a rule—excepting on high altitudes in the northern and midland counties—the snow from

one storm has disappeared by the time the next has occurred, the sun having now attained considerable power; but while thawing in the sun it has been freezing in the shade, and a few dry, windy days would put the land into excellent form for spring seeding. At the commencement of March there are apparently no "winter-proud" wheats; and probably such a thing has not existed at all in any important wheat-growing district of England in the winter of 1888-9. The month of February has come as a wholesome check on the more forward wheats from the earliest sowings, but the bulk of the acreage, showing a perfectly healthy stand, in the best possible creeping form, will now have to work hard "to cover a hare" by the end of the present month unless under the influence of very mild weather. Cold weather and heavy snowstorms have occurred over all Western Europe, the latter having been particularly heavy in Germany and the north of France. Grain markets have not been at all active, nor have quotations been appreciably altered. In France the swollen streams have stopped milling, locally, but stocks of foreign wheat and flour are increasing at tide-water; at Paris the only change to note has been a rather better demand for consumption at the preceding week's decline. The most important telegraphic advices respecting the wheat crops in foreign exporting countries are those from New Zealand and the Argentine Confederation. From the former source statements come to the effect that the wheat harvest has been a large and good one, secured in excellent order, which it is supposed will afford a surplus for export about double that of last year. From the River Plate districts, on the other hand, the reports of damage to the wheat crop by rain are being confirmed, and it is further stated that the linseed crop has been extensively damaged. The maize crop, however, is said to be the largest and best ever grown in the Argentine Confederation.

The weather continues all that can possibly be required to produce a large crop of cereals, fruits, vegetables, etc.

The local wheat market held very firm at from \$1.38 1/2 to \$1.42 1/2 for fair to choice shipping up to Monday, when buyers under lower markets at the East dropped bids 1 1/2 cts. per cental. At the lower prices they are reported to have bought some yesterday. The advance which obtained the forepart of the week under review is said to have brought about freer selling, causing considerable to change hands, with exporters the chief buyers, although some of the mills took some choice to gilt edged at \$1.45 @ \$1.48 1/2. There can be no doubt but the quantity of wheat to be carried over from this season into that of 1889-90 will be smaller than for several years.

If this State has a phenomenal large wheat crop its effect will be neutralized, to some extent, by a lessened crop in India, a failure in Australia, a light crop in the Argentine Republic, and small reserves in the Central and Eastern States.

Barley has held to fairly firm prices. The comparative light supply of available choice grades of bright brewing is said to have a most favorable effect on other grades of brewing. The consumption of brewing is increasing. In feed the market does not present any material change. The consumption is large, but buyers do not appear disposed to anticipate their wants unless offered concessions. The outlook for the crop is said to be good.

Continued free receipts of oats keep values still in buyers' favor. The consumption is reported to be good.

Corn is fairly steady for yellow. White is offering sparingly. The situation is without essential change and does not offer any occasion for particular comment. The large supply in the Central States and the lessened consumption the past winter, owing to its mildness, are factors against the market.

Rye is off-rim more freely, but sellers do not, as yet, appear disposed to shade asking prices to effect sales.

Fruit.

The first strawberries of the season were received yesterday from P. Small, Mountain View. They were placed at 50 cts a basket.

Orange shipments have been quite lively during the past three days. There is a warm competition for the traffic between the Southern Pacific and the Atchison, Topeka & Santa Fe.

Receipts of oranges the past week aggregated 35 carloads. Notwithstanding the heavy receipts the market held up remarkably well. The demand has not only been for local consumption and shipping into the interior, but also for shipment up north. The superior quality, compared with former seasons, of this year's oranges, is largely in their favor. To large distribution centers up north direct shipments are being made from the large growing sections.

The consumptive demand for both limes and lemons is increasing, brought about by milder weather, but the large receipts keep values from improving.

The outlook for the berry crop continues good for the largest on record.

Apples are without any change to note.

In dried fruits, the market continues to shape itself in good condition for holders, by reason of a steady cleaning up of all odd and end parcels. The available supply of the better grades of all kinds is growing smaller, and as the stock lessens values strengthen. It now looks as if the stock will be well cleaned up by the commencement of another season.

Choice raisins continue firm; even fair grades show more strength. It looks as if the stock of all kinds will be about cleaned up by next September.

Feedstuff.

Ground feed continues firm at the low price for bran and middlings. The export movement the past week showed a shipment of 2166 sks. bran to Honolulu. The consumption of ground barley is only fair, not up to that which obtained in March, 1888. The falling off is said to be due to the better pasturage this year.

In hay the market does not show any material change. The tendency appears to be to a lower range of values, under freer receipts and buyers not anticipating their wants in view of the good crop prospects. Shipments the past week aggregate as follows: 100 bbls to Central America, 451 to Santa Rosalia and 783 to Honolulu.

Vegetables.

Seedmen report that the sales of seed this year were larger than ever before which goes to confirm advices received that the crop of all kinds this year will be very large.

Receipts of old potatoes this past week were very

heavy, chiefly from Oregon. New potatoes came in in very large quantities, causing considerable difficulty in placing consignments. Prices for the season of the year are quite low; even low prices do not stimulate the consumption.

Canners say that there is every probability that the pack of canned peas will be smaller than that of last year, which if the case, will cause a lessened demand for sweet peas. The market at present for all kinds is firm under only fair receipts and a good demand, both home and for shipment up north. The asparagus market continues to droop, under increasing receipts, and dealers buying only for daily wants. Other spring vegetables are without particular change.

Heavy receipts of onions and more selling pressure have caused values to recede. Cut and other-wise poor onions are hard to place.

For cabbages the demand this year has been unusually slow, causing a lower range of values to obtain.

Live-Stock.

The consumption of fresh meats, as is usual during Lent season, shows a falling off, but as the selling pressure for both bullocks and mutton sheep is also light, the market does not show any material change. Hogs for the block are still wanted, but buyers are inclined to bid lower. In horses and cows there is nothing new to report.

The market for dressed cattle is quoted as follows: To obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent!

HOGS—On foot, grain fed, 6 1/2 @ 6 3/4 c @ lb.; dressed, 9 1/2 @ 10 c @ lb.; soft, 5 1/2 @ 6 1/2 c @ lb.; dressed, 8 @ 9 1/2 c @ lb. Stock hogs, 4 1/2 @ 5 1/2 c @ lb.

BEEF—Stall fed, 6 1/2 @ 7 c @ lb.; grass fed, extra 6 @ 6 1/2 c @ lb.; first quality, 5 1/2 @ 6 c @ lb.; second quality 4 1/2 @ 5 1/2 c @ lb.; third quality, 3 1/2 @ 4 1/2 c @ lb.; bulls and thin cows, 2 @ 3 c.

VEAL—Small, 5 @ 7 1/2 c @ lb.; large, 5 @ 6 1/2 c.

MUTTON—Wethers, 6 @ 6 1/2 c @ lb.; ewes, 5 1/2 @ 6 c @ lb.; lamb, spring, 10 @ 12 1/2 c @ lb.

Miscellaneous.

The railroad people are pleased with the section of the amended interstate commerce law which provides for the punishment of shippers who falsely designate freight in order to secure low classification and a low rate. The honest shippers are also well pleased because they have had a hard time competing in the local markets with merchants who have classed their artificial flowers as stationery and their Dresden china as baled straw, and thus secured a low rate of freight on a high class of goods.

Preceding the meeting of the Legislature the lumber trust reduced the price of lumber, but immediately following the adjournment of the Legislature the price was advanced \$2 per thousand, with other advances looked for.

There is a steadily increasing demand for the Mexican Phosphate and Sulphur Company's fertilizer. During the past week there was shipped to Honolulu on order 250 tons. Farmers, vineyardists and horticulturists in this State are buying more, as the sales now amount to about 40 tons a week.

The upward movement in beans has been checked by free receipts, causing buyers to bid lower.

Poultry, after advancing slightly for young and well conditioned, closed weak under freer receipts.

Wool is still coming in sparingly. Buyers are beginning to sample, but as yet the want of assortment to select from restricts sales. The grades show an improvement over last year. Quotations, in the absence of business, are more or less nominal.

Choice hops are hard to get, but when found buyers are ready to pay full prices.

Grass seeds are firmly held, particularly alfalfa. Mustard seeds are firmer under good demand.

Walnuts are steadily moving off at current quotations.

In honey there are no changes to note. Owing to the advance in coffee there is an improved demand for chicory.

From the *Commercial News* of March 26th, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port	203,489	254,902
On the way to neighboring ports	35,095	117,668
In port, disengaged	33,489	23,860
In port, engaged for wheat	37,922	39,570

Totals.....309,995 436,000

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to March 26th, the following are the exports from this port:

	1889.	1888.
Wheat, cts.	10,396,930	7,278,018
Flour, bbls.	585,391	593,887
Barley, cts.	1,246,981	635,214

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell at the lower quotations.

	BEANS AND PEAS.	Paper shell.	12 @ 13
Bayo, cts.	2 30 @ 2 65	Brazil	8 @ 10
Butter	2 50 @ 3 00	Pecans	10 @ 17
Pea	1 75 @ 2 00	Peanuts	4 @ 6
Red	2 30 @ 2 40	Filberts	10 @ 12
Pink	2 20 @ 2 35	Hickory	5 @ 8

Large White	1 75 @ 2 00	Early Rose	30 @ 40
Small White	1 75 @ 2 00	Chile	30 @ 45
Lima	4 00 @ 4 50	Peerless	35 @ 50
Ida Peas, Bkney	3 00 @ 2 10	Jersey Blues	40 @ 60
do green	3 30 @ 4 00	River Reds	25 @ 40
do Niles	2 00 @ 2 10	Burbank	40 @ 60
BROOM CORN.			
South's Best	70 @ 85 00	Cuffey Cove	— @ 70

Gr'd Barley.....18 00 @19 00	Brant.....1 25 @
Middlings.....14 00 @15 50	Snipes, English. 2 75 @ 3 00
Oil Cake Meal. 30 00 @	do Jack.....1 00 @
Manhattan Food	EGG FOOD.....12 @
Per 100 lbs.....7 50 @	PROVISIONS.
HAY.	
Compressed.....8 00 @11 50	Cal. Bacon.....11 @ 12
Wheat and Oats 8 50 @13 50	Heavy, lb.....12 @ 14
Wild Oats.....10 00 @12 00	Medium.....12 @ 13
Clover.....9 00 @12 00	Light.....12 @ 14
Tame Oats.....8 00 @10 00	Extra Light.....13 @ 14
Barley.....8 50 @10 50	Lard.....10 @ 11
Barley and Oats 8 50 @10 50	Cal. Sm'd Beef 11 @ 12
Alfalfa.....8 00 @ 9 50	Hams, Cal.....12 @ 14
Compressed.....7 00 @ 8 00	do Eastern.....13 @ 14
Straw bale.....70 @ 85	SEEDS.
FLOUR.	
Extra, City Mills 4 66 @ 4 75	Alfalfa.....12 @ 13
do Co'try Mills 4 50 @ 4 70	Canary.....3 @ 4
Superfine.....3 50 @ 4 00	Clover, Red.....12 @ 13
GRAIN, ETC.	
Barley, feed, chl. 7 24 @ 8 12	Cotton.....20 @ 22
do Ewing.....9 12 @ 9 55	Flaxseed.....2 @ 3
do Choice.....9 74 @ 1 05	Hemp.....3 @ 4
Chevalier cace 1 30 @ 1 40	Italian Rye Grass 10 @ 11
do com to good 1 10 @ 1 20	Perennial.....7 @ 9
Buckwheat.....3 25 @ 4 00	Millet, German. 5 @ 6
Corn, White.....1 07 @ 1 15	do Common.....5 @ 6
Yellow.....1 07 @ 1 12	Mustard, yellow 11 @ 12
Oats, milling.....1 15 @ 1 20	do Brown.....2 @ 3
Choice feed.....1 10 @ 1 12	Rape.....1 @ 2
do good.....1 07 @ 1 10	2d quality.....13 @ 14
do fair.....1 05 @ 1 10	Sweet V. Grass. 75 @ 80
do Gray.....1 05 @ 1 10	Orchard.....7 @ 8
Rye.....1 65 @ 1 85	Hungarian.....7 @ 8
Wheat, milling. 1 47 @ 1 48	Lawn.....27 @ 40
Wheat, per ton. 1 45 @ 1 48	Mesquit.....6 @ 8
do fair to good 1 41 @ 1 43	Timothy.....6 @ 7
Shipping, choce 1 41 @ 1 42	TALLOW.
do good.....1 40 @ 1 41	Crude, lb.....3 @ 5
do fair.....1 36 @ 1 38	Refined.....6 @
HIDES.	
Dry.....11 @	Wool, ETC.
Salted.....5 @	Spring-1888.
HOPS.	
Oregon.....8 @ 15	Humboldt and 18 @ 25
California.....8 @ 15	Mendocino.....15 @ 22
ONIONS.	
Cut.....40 @ 70	Free Mountain. 18 @ 24
Silver-skin.....1 00 @ 1 35	S. Joaquin valley 1 @ 19
NUTS-JOBBER.	
Walnuts, Cal. lb. 7 @ 7	do mountain. 13 @ 21
do Chile.....9 @ 10	Cala's & Fth'l. 15 @ 25
Almonds, hd shl. 5 @ 6	Oregon Eastern. 13 @ 22
Soft shell.....9 @ 10	do valley.....21 @ 25

Fruits and Vegetables.	
Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.	
WEDNESDAY, March 27, 1889.	
Apples, bx, com - @ -	Okra, dry, lb.... 15 @ 25
do Choice..... - @ -	do Green bx..... - @ -
do E's't'n, hbl 3 50 @ 4 50	Parsnips, chl.... 1 00 @ 1 25
Bananas, bunch 1 50 @ 3 00	Peppers, dry, lb. 8 @ 10
Oranges, com bx 1 00 @ 1 75	do green, lb.... 10 @ 15
do Choice..... 2 00 @ 2 75	Squash, Sum-mer, bx..... - @ -
do Naveis..... 3 75 @ 4 50	do M'r-w-fatn 18 @ 25
do Sicily, box. 4 00 @ 5 00	String beans, lb. 12 @ 15
do do seedling 2 00 @ 2 25	Turnips, chl.... 50 @ -
Oranges, com bx 1 00 @ 1 75	Beets, sk..... 50 @ -
do Choice..... 2 00 @ 2 75	Cabbage, 100 lbs 45 @ 55
do Naveis..... 3 75 @ 4 50	Carrots, sk.... 25 @ 30
do Sicily, box. 4 00 @ 5 00	Green Corn, cr. - @ -
do do seedling 2 00 @ 2 25	Green Peas, lb. 1 @ 3
Oranges, com bx 1 00 @ 1 75	Sweet Peas, lb. 4 @ 5
do Choice..... 2 00 @ 2 75	Mushrooms, lb. 8 @ 20
do Naveis..... 3 75 @ 4 50	Rhubarb, lb.... 7 @ 10
do Sicily, box. 4 00 @ 5 00	Cucumbers doz. 1 00 @ 1 75
do do seedling 2 00 @ 2 25	Garlic, sk..... 50 @ 75
Oranges, com bx 1 00 @ 1 75	Tomatoes, rv, bx 1 50 @ 2 50
do Choice..... 2 00 @ 2 75	Egg Plant, lb.... - @ -

PACIFIC COAST WEATHER FOR THE WEEK.																																			
[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]																																			
DATE.	Portland.				Eureka.			Red Bluff.			Sacramento.			S. Francisco.			Fresno.			Keeler.			Los Angeles.			San Diego.									
	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.								
March 20-26.																																			
Wednesday .....	.00	58	W	Cy.	.72	54	N Fr.	.90	60	N	Cl.	.70	58	Nw	Fr.	.68	56	Nw	Cl.	.24	58	W	Cl.	.00	58	Nw	Cl.	.34	62	W	Cl.	T	60	Nw	Fr.
Thursday .....	.00	64	Nw	Cl.	.00	54	N Cl.	.00	74	N	Cl.	.00	68	N	Cl.	.00	59	W	Cl.	.00	62	E	Cl.	.00	64	Nw	Cl.	.00	68	W	Cl.	.00	64	Nw	Cl.
Friday .....	.00	66	SE	Cy.	.00	56	E Cy.	.00	64	S	Cy.	.00	66	SW	Fr.	.00	64	N	Cy.	.00	70	E	Cy.	.00	66	N	Cl.	.00	72	E	Cl.	.00	68	Nw	Cl.
Saturday .....	.T	52	W	Cy.	.24	54	Nw Fr.	.04	66	Nw	Fr.	.00	62	Nw	Fr.	.01	60	W	Cy.	.00	66	W	Cl.	.00	66	Nw	Cl.	.00	66	W	Fr.	.00	68	Nw	Fr.
Sunday	T	58	Nw	Cl.	.00	56	N Fr.	.00	70	N	Cl.	.00	66	Nw	Cl.	.00	61	W	Cl.	.00	64	Nw	Cl.	.00	58	S	Cl.	.00	60	SW	Cy.	.00	60	SW	Cl.
Monday .....	.00	68	NE	Cl.	.00	54	SW Cy.	.00	74	S	Fr.	.00	66	Nw	Fr.	.00	65	SW	Cl.	.00	72	Nw	Cl.	.00	60	E	Cl.	.00	60	W	Fr.	.00	60	W	Cy.
Tuesday .....	.00	78	Nw	Cl.	.00	58	NE Cy.	.00	68	S	Cl.	.00	64	SW	Fr.	.00	59	S	Cy.	.00	76	S	Cl.	.00	64	W	Cl.	.00	62	W	Cl.	.00	62	W	Fr.
Total	T				.96				94				70				69				.24				.00				.34			T			

EXPLANATION.—Cl. for clear; Cy., clou y; Fr., fair; Fy., foggy; Cm., calm; — indicates too small to measure. Temperature, wind and weather at 12:00 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.

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NOTICE.

There will be a meeting of the members of the **PAT-RONS AND FARMERS MUTUAL PROTECTIVE FIRE INSURANCE ASSOCIATION** of Sacramento County, held at Grangers' Hall on Wednesday, April 3, 1889, at 1 o'clock P. M. A full attendance is required, as business of importance will come before the meeting.

THOMAS McCONNELL, President

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WHAT TWENTY THOUSAND HORSE-POWER MEANS.—The London *Engineer* explains what 20,000-horse power means: It is more than probable that the White Star boats being built by Messrs. Harland & Woolf will develop 20,000-horse power. It is asserted that they will have each 12 boilers and 72 furnaces, worked with forced draught on Howden's system. Assuming that the engines will require 18 pounds of steam per horse per hour, then 160 tons of feed water must be pumped into the boilers every hour. In 24 hours the feed-water will amount to 3840 tons. A tank measuring 52 feet on the side would hold one day's consumption, or it would fill a length of 493 feet of a canal 40 feet wide and 7 feet deep. Thus, the condensing water at 30 times the feed-water, it will amount to 115,200 tons in 24 hours; or, for a six days' run across the Atlantic, to not less than 691,200 tons. This would fill a cubical tank 295 feet on the side—a tank into which the biggest church in London, steeple and all, could be put and covered up. The coal consumed will be 400 tons per day. This will require for its combustion 8600 tons of air, occupying a space of 222,336,000 cubic feet. It is impossible for the mind to take in the significance of these latter figures. It may help if we say that, if this air was supplied to the ship through a pipe 20 feet in diameter, the air would traverse that pipe at the rate of about 5.6 miles per hour. It will be seen that the circulating pumps and fan engines of such a ship have no sinecure.

List of U.S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey Co.'s Patent Office Library, 280 Market St., S. F.

- FOR WEEK ENDING MARCH 12, 1889.
- 399,374.—ARTIFICIAL SLATE—Calvin Brown, S. F.
- 399,515.—BRAKE—John Fulton, Regs. Ogn.
- 399,524.—COMPOUND CABINET ENGINE—E. W. Hamlin, S. F.
- 399,328.—DYNAMO ARMATURE—J. A. Hayes, S. F.
- 399,615.—ROLLER BEARING—R. W. Hent, S. F.
- 399,477.—SHIPPING RECEIPT COVER—D. K. Howe, Portland, Ogn.
- 399,412.—FENCE MACHINE—G. W. Johnson, Dallas, Ogn.
- 399,337.—WEED-CUTTER—F. E. Lux, Walla Walla, W. T.
- 399,345.—CAMERA ADJUSTER—H. L. Pochlman, S. F.
- 399,284.—WALL FOR HOUSES—W. R. Ray, Los Angeles, Cal.
- 399,441.—FOOTBOARD FOR WOOD-CHOPPERS—A. L. Stevens, Little Falls, W. T.
- 399,451.—HASP LOCK—W. Tiffany, Creswell, Ogn.

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BROWNE'S SQU'REL AND GOPHER SMOKER.

This is an apparatus for Burning Straw and Sulphur

And killing the Smoke and Gases through their holes, which kills them. (Don't smoke with burning straw and all other dangerous methods.)

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Always gives a bright natural color, never turns rancid. Will not color the Buttermilk. Used by thousands of the best Creameries and Dairies. Do not allow your dealer to convince you that some other kind is just as good. Tell him the BEST is what you want, and you must have Wells, Richardson & Co's Improved Butter Color. Three sizes, 25c, 50c, \$1.00. For sale everywhere. WELLS, RICHARDSON & CO. Burlington, Vt.

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PROTECT YOUR TREES AGAINST Sunburn, Rabbits, Borers and other Pests.

THE EXCELSIOR FRUIT TREE PROTECTOR

Is not only a protection against Sunburn, but being chemically prepared, is proof against Rabbits, Borers, etc., and is approved and being used by all orchardists who have examined its merits. Buy no other until you have seen the EXCELSIOR. Its simplicity of fastening will recommend it, as it requires one third less time to adjust it than any other make.

Price for Protection from Sunburn, \$1 per 100
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IMPROVED SCRAPER,
MANUFACTURED BY
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For Railroad Work, Irrigation Ditches, Levee Building, Leveling Land, Road Making.

This implement will take up and carry its load to any desired distance, carrying 15 to 20 cubic feet, according to dirt. It will distribute the dirt evenly, or deposit its load in bulk, as desired. It will do the work of Scraper, Grader and Carrier. Can be used with two or four horses, although best results obtained with four horses. ONE MAN ONLY required to handle this Scraper. Address:

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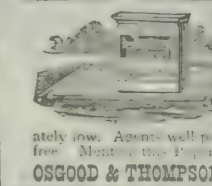
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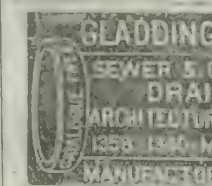
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HAS NO EQUAL

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Cheapness and Durability.

WILL LAST FOR YEARS.

Cannot be Torn. Anybody can put it on.

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GRASS, CLOVER, VEGETABLE, FLOWER AND TREE SEEDS.

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A man to work in the NURSERY. One thoroughly understanding budding and grafting. Inquire of R. E. FARRINGTON, Phoenix, A. T.

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We would respectfully call the attention of the public to our very complete list of Nursery Stock for the ensuing season, consisting of a full line of all the Standard Varieties of

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BESIDES A LARGE STOCK OF THE GENUINE

WHITE ADRIATIC FIG,

Guaranteed, and the NEW LYONS CLING PEACH. We have an immense stock of ROOTED VINES, comprising 86 varieties. We carry also a full line of CITRUS FRUITS, well grown and warranted free from all pests and true to label.

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Offer their immense stock of Citrus Fruit Trees, all choice and healthy, at a bargain. Varieties strictly genuine and consist of the following popular kinds: Homosassa, Magnum Bonum, Nonpareil, Majorca, Jaffa, Mediterranean Sweet, Hart's Tardiff, Maltese Blood, Washington Navel, Du Roi, Sweet Seville, Centennial, Madam Vinous, Maltese Oval, St. Michael, Tony, Mandarin and Tangierine. Lemon, Sicily, Relair Premium and Villa Franca. Lime, Tabiti and Florida. Citron, Lyman. Sweet and Sour Orange, and Grape Fruit Seedlings.

Special prices quoted on large orders. Send for descriptive catalogue and price list to E. H. TISON, Business Manager.

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We have a surplus of the following varieties of FRUIT TREES, which we offer at exceedingly low prices to close out:

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Also have a large stock of very best varieties of ORANGE TREES in quantities to suit, from one tree to a carload. Can also supply OLIVE TREES, LEMON, and other Nursery Stock. WRITE FOR PRICES TO

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Also a large stock of Gums, Cypress and Laurustinus in boxes and complete assortment of general ORNAMENTAL PLANTS. **Roses Our Specialty.**
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Seeds, Plants, Etc.

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Of the leading varieties grown in California, in the market, guaranteed true to name. Also Dormant Buds of Washington Navel and Mediterranean Sweet for April Delivery. Tahiti Seedlings, one and two-year stock, in any quantity. (Our entire mammoth stock has been raised at Penryn, Cal.)

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OLIVE and PERSIMMON TREES,

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General Line of Fruit and Ornamental Trees and Plants.

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FOR 1889.

Great Reduction in Prices.

FIRST-CLASS TREES.

The Best Orange Trees are now within the reach of all planters. Genuine Riverside Washington Navels, of our own budding, and other varieties at about one-half usual prices. Navel Orange orchards \$300 to \$400 an acre. Orange and Vineyard lands at low prices.

Also Rooted Muscat Vines and Cuttings.

Send for Circulars.

J. H. FOUNTAIN & CO.,
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The undersigned would respectfully announce to the Trade and public at large that he has the following stock to dispose of:

PEACH,
PLUM,
PEAR and
OLIVES

At the Lowest Prices.

ALSO HAVE

60,000 MUSCAT GRAPES,

One-year-old, second to none in the State. Write at once for special rate, for ten days only.

RANCHO CHICO NURSERY,
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Onion Sets, Grass, Clover, Vegetable
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Largest Stock and Most Complete Assortment.

Illustrated descriptive and priced seed catalogue for 1889, the most elaborate and valuable of its kind of any Pacific Coast publication, mailed free to all applicants. Address: E. J. BOWEN,
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Offers for sale this season the largest and
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Azaleas, Camellias, Rhododendrons,
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Also Monterey Cypress, transplanted in boxes and open ground; Monterey Pine, transplanted; Pepper Trees, Juniperus Pittosporums, Veronicas, Fuchsias in great variety, and a fine collection of hardy Ornamental Evergreen and Deciduous Trees and Shrubs. Eighty thousand rooted Resistant Riparia Grapes. Olives, Picholine and other varieties. Guava, two sorts. Blackberries, Kittatinny, Lawton and other sorts. Fruit and Shade Trees in varieties. Address,
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Muscat Cuttings and Rooted Vines

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ADRIATIC and SAN PEDRO FIGS.

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— GROWERS AND DEALERS IN —

ORANGE AND LEMON TREES,

Choice Budded Varieties, including the

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We grow our own Trees and have the largest stock of budded Orange Trees in Riverside. If you want reliable, strictly first-class Trees, true to name, that ALWAYS GIVE THE BEST SATISFACTION, we should be pleased to hear from you.

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LARGEST STOCK ON THE PACIFIC COAST.

Fruit Trees, Olives, Oranges and Lemons, Nut Trees,
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Evergreens, Shrubs, Roses, Etc., Etc.

FOR COMPLETE LIST, SEND FOR OUR NEW CATALOGUE.

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FRUIT TREES! } Established 1863. { FRUIT TREES!

THOS. MEHERIN,

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We have now for sale at Lowest Market Rates the Largest, Best Selected and Healthiest Stock of

Fruit Trees, Grapevines, Olives, Small Fruits, Etc., Etc.

Ever offered on the Pacific Coast, including all the new varieties, all grown on new land at the above Nursery and free from scale and other pests. Samples of the trees always on hand.

Seeds! Seeds! Seeds!

WE HAVE ALSO CONSTANTLY ON HAND A LARGE AND FRESH STOCK OF

Grass, Clover, Vegetable, Flower and Tree Seeds,

And Ornamental Trees and Plants, Bulbs, Roses, Magnolias, Palms, etc.,

AT LOWEST RATES. New Catalogue for 1888 mailed on application.

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PEACHES, NECTARINES, APRICOTS, FRENCH PRUNES, PEARS,
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Headquarters for White Adriatic, White Genoa and San Pedro Figs.

A FINE COLLECTION OF

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A five-pound box of White Adriatic Figs sent by express, prepaid, to any address on receipt of \$1.50. New catalogue mailed free on application. Address all letters to

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BARTLETT PEAR TREES

The best kind for Shipping and Canning.

General assortment of all kinds of

FRUIT and ORNAMENTAL TREES,

Including

ORANGE and LEMON TREES.

Also, a large stock of imported Fruit Tree Seedlings, Apple, Pear, Myrobalan Plum and Mazzard Cherry. A large stock of dormant buds, heavy-rooted. Send for prices.

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Formerly of Martinez, Cal.

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Japanese Seedless OONSHU (Mandarin—Kid glove) a Specialty.

JUST ARRIVED, per Gaelic, in fine condition, round and long fruit Camquots (in bearing), Tamba Mammoth Chestnuts, Plums (To Sumomo), Pears (nikad) Camellias (very fine large variegated flower), Olea Fragrans for Shade and Fragrance, Maples, Fan Palms and Cycas Revoluta, Azaleas and other shrubs.

Four more Japanese Gardeners came to us, making 46 in our employ in various parts of the State, caring for our stock and planting out Japanese Trees on shares and otherwise.

Send for prices. We keep also Domestic Trees, Vines, Cuttings, etc.

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FRESH and RELIABLE

SEEDS

IT WILL BE TO YOUR ADVANTAGE, if you want PURE, TESTED SEED, or anything for ORCHARD, GARDEN, LAWN or PARK, to send for our BEAUTIFULLY ILLUSTRATED CATALOGUE, containing two COLORED PLATES; also all the desirable novelties. Sent Free on application.

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HARDY NORTHERN-GROWN

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Grass, Farm and Garden Seeds, Plants,
Trees and Bulbs in stock.

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OVER 6,000,000 people believe that it pays best to buy Seeds of the largest and most reliable house, and they use

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For 1889

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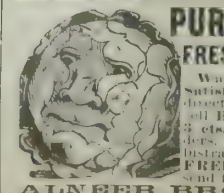
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Catalpa Speciosa, White Ash, European Larch, Pines, Spruces, Arbor Vitae, etc. Catalpa Speciosa Seed. Forest and Evergreen Seeds.

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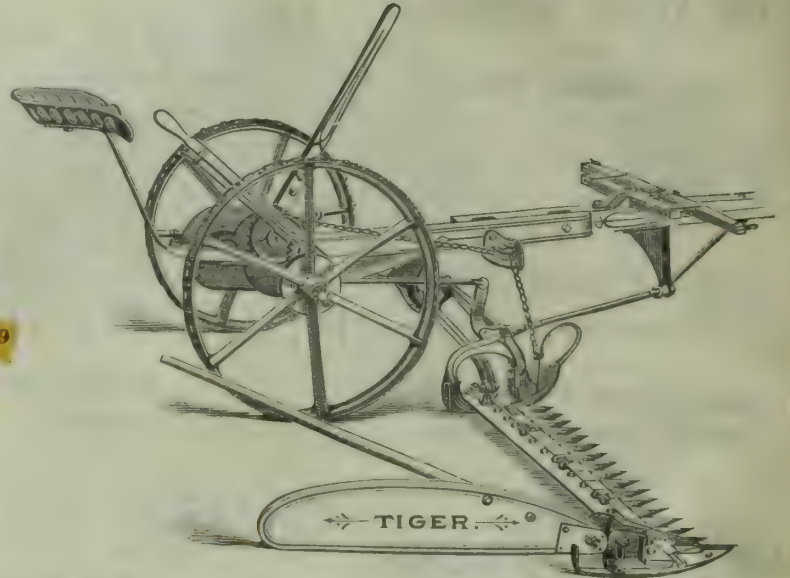
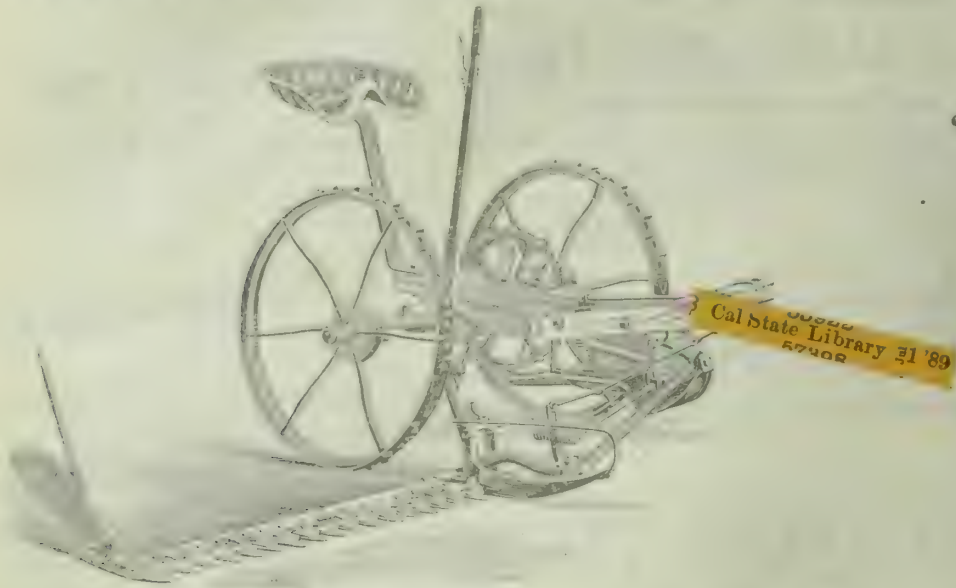
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Warranted to grow and give satisfaction. Buy your seeds direct from the Growers. We sell Best Seeds Cheap. 1 Pkts. 3 cts. Free Seeds with all orders. Send for Beautiful Illustrated CATALOGUE, sent FREE. Market Gardeners, send for Wholesale Price List.

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DAYTON Chain Power MOWER.

THE TIGER MOWER.



The distinctive feature of the Dayton Mower is the use of CHAIN POWER, instead of gear-

ing, to drive the knife. This is no experiment in mowers, but has been fully tested in the hands of thousands of farmers, and, wherever introduced, is universally conceded to be a decided improvement over geared power.

Its advantages are so great that it is no exaggeration to say that a new epoch has been reached in the improvement of the art of mowing machines.

The limits of this advertisement will not permit of a full description of its many advantages, but an examination and use of the DAYTON will clearly demonstrate that it is simpler in construction, more direct in its application of power to the work, lighter in draft, more durable, and better adapted to all kinds of work, than any mower that has preceded it.

Any one familiar with mowing machines will readily appreciate the marked advantage of a chain or flexible connection between the driving power and the knife, which readily yields and accommodates itself to every possible concussion or strain in the frame, and applies the maximum power of the driving wheels DIRECTLY upon the knife, every instant of time.

There are no shafts, boxes, or cog-wheels, that can possibly get out of line with each other, to bind or cramp, and the chain, being interposed between the driving power and the cutting apparatus, leaves every part free, so that the full power of the wheels is CONSTANTLY exerted upon the knife under all circumstances.

These new elements give such marked advantage that the DAYTON cannot fail to give entire satisfaction to every purchaser.

IT IS THE BEST IN PRINCIPLE,

BEST IN CONSTRUCTION,

BEST IN OPERATION,

BEST IN DURABILITY AND

BEST IN DESIGN AND FINISH

OF ANY MOWER IN THE MARKET,

TESTIMONIALS.

I consider it a very strong and durable mower.—JOSEPH IRWIN, Bonifon Island.
A perfect cutting machine, unequalled for lightness of draft.—J. MCGOWAN, Watsonville.
Perfectly satisfactory in every respect.—P. GIACOMINI, Watsonville.
The best mower I have seen work.—D. HALL, Cloverdale.
Do not think it can be beaten.—P. ROWAN, Salinas.
Works well wherever you put it.—G. C. STANLEY, Livermore.
For all kinds of cutting the best in the market.—THOS. ROBINSON, Lompoc.
For alfalfa and such grasses has no equal.—CHAS. KEW, Bakersfield.
We have sold 30, and have not heard a single complaint.—FARMERS' UNION, Livermore.

FOR SALE BY

BAKER & HAMILTON, San Francisco and Sacramento.

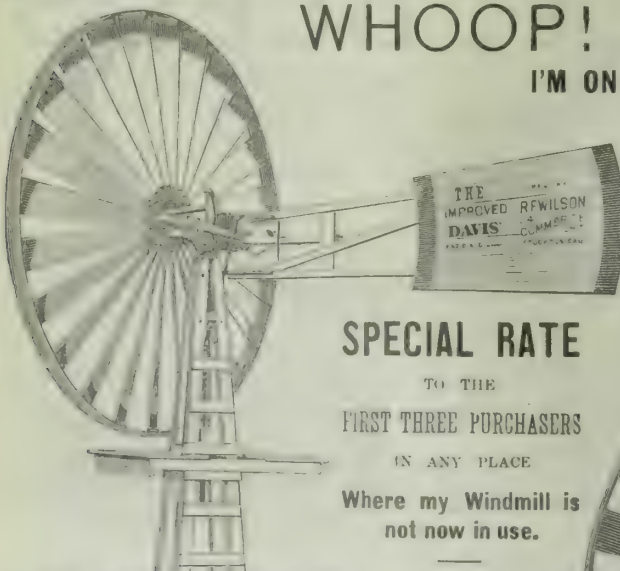
WHOOOP! WHOOP! WHOOP!

I'M ON THE WARPATH! LONG-WINDED, TOO!

Put Your Cuts In Right Beside Mine

AND LET THE PEOPLE BE THE JUDGE.

I will compel my competitors to make better Windmills or seek employment more suitable to their ability.



SPECIAL RATE

TO THE
FIRST THREE PURCHASERS
IN ANY PLACE

Where my Windmill is
not now in use.

PUT YOUR WINDMILLS UP TO
STAY

The San Joaquin Valley is not Big
Enough for me.

I NEED MORE TERRITORY AND WILL HAVE IT.

Send for Illustrated Catalogue and Price List, FREE, and
Read what the People Say. Some people advertise "Dandy"
Catalogues. I advertise DANDY WINDMILLS and CATA-
LOGUES, too.

I ask those who have spent much money for Windmills, without satisfaction, to try the

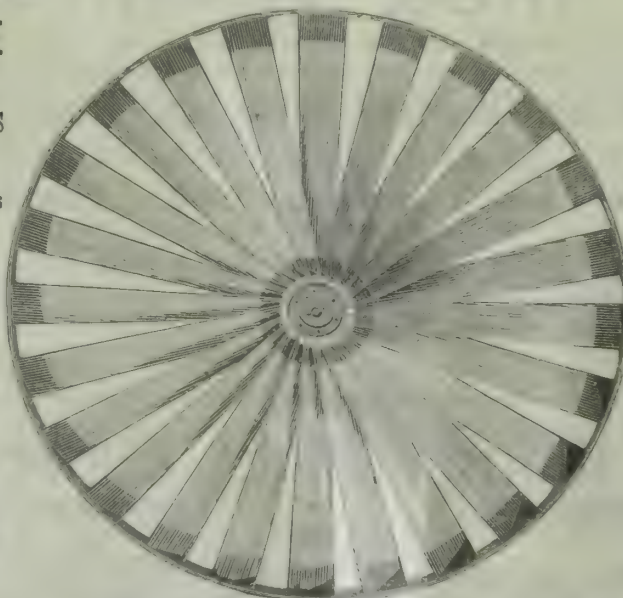
IMPROVED DAVIS,

For it will certainly satisfy you and save you much trouble and further expense. Compare the cuts of the Improved Davis with Mills of other kinds. Notice the solid, powerful and neat appearance of the Davis. Advantages: No sand bags or old junk shops to attach to my Windmill to make them. The motion parts and rod that is connected to the pump is in the center. There is no friction, as the motion parts move on centers—"a lever motion." Those Windmills that get the motion by fixed slides soon wear loose, make a great racket and run hard. The Davis is light-running, noiseless and a perfect regulator.

IRRIGATING and DRAINAGE WINDMILLS A SPECIALTY. PUMPS, TANKS, HORSE POWERS, HAY PRESSES, Etc.

P. O. Box 126.
Telephone No. 314.

R. F. WILSON, 1347 Commerce St., Stockton, Cal.



"Now, in building a windmill, I tell you what,
There is always somewhere a weakest spot;
In wheel, shaft, cross-bar, flange or tail,
Pin, felloe, pitman and sill;
Find it somewhere you must and will,
And that's the reason, beyond a doubt,
That a windmill breaks down, but never wears out."

The above will apply to all Windmills that have not
passed the age of experimenting.

PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXVII.—No. 13.

SAN FRANCISCO, SATURDAY, APRIL 6, 1889.

{ \$3 a Year, in Advance.
SINGLE COPIES, 10 CTS.

A Noble Holstein.

California Holstein breeders and many others who are contemplating trying this blood in their herds will be interested in the portrait of a grand representative of the breed, which we give herewith. He is Mercedes Prince, a prominent member of the Mercedes family of which the *Holstein-Friesian Register*, March 15, 1888, said: "In the annals of Holstein breeding the Mercedes family will always hold a leading position, and the infusion of a strain of this blood will be substantial guarantee of great quality in any animal that possesses it—a sort of Advanced Registry in itself." Mercedes Prince is No. 2150 of the Holstein Herd Book, and No. 12 of the Advanced Registry, of which we have recently received a copy from Mr. Hoxie of Whitesboro, N. Y., a volume which should be in the hands of all Holstein men.

Mercedes Prince was bred in 1882 by Thos. B. Wales.

He is a son of Mercedes, an imported cow, with a milk record of 88 pounds in one day and 2534 pounds in 31 days. Her butter record (unsalted) is 3 pounds 10 ounces in 1 day, 24 pounds 6 ounces in 7 days; 99 pounds 6½ ounces in 30 days; at the time

this was the largest butter record ever made by any cow of any breed, for which she was awarded the challenge silver cup, offered by the *Breeders' Gazette* of Chicago for the largest 30-day butter record, open one year, to July 1, 1883, to all breeds and the world. She was a member of the herd winning the great dairy prize of \$500 at the Illinois Fair in 1883, open to all the dairy breeds. It is claimed that this cow through her son Mercedes Prince has given to her granddaughters greater richness than has been transmitted by any cow of the breed.

Mercedes Prince is now the property of John A. Frye of Marlboro, Mass., and stands at the head of Mr. Frye's famous Hilside herd. He is black and white. His weight is 2300 pounds. He is a bull of grand style, of good form, and excellent in quality; scoutcheon, first class. The engraving well shows his grand form and outline.

L. J. ROSE will not quit breeding horses. The encouragement he met with in his auction sale of fine horses at New York has caused him to renew his interest in the business.

STATE EXCLUSION OF COMMERCIAL PRODUCTS INADMISSIBLE.—Relative to the new law regulating the sale of meats and providing for the inspection of cattle and hogs prior to slaughtering them, which practically prohibits the bringing into New Mexico of dressed beef and pork, the acting solicitor-general of the Territory says that the Act is unconstitutional and void, so far as it affects shipments into the Territory for purposes of sale and public use of articles of interstate commerce. He holds that dressed

THE BLENHEIM APRICOT.—This variety promises to add this year to its already excellent reputation in the bay country. We have frequently spoken of its record in the University orchard at Berkeley. The trees this year are carrying now more fruit than it will do to leave on them. Of the Blenheim the *San Leandro Reporter* says: "As a rule the apricot trees blossomed very fully and set large quantities of fruit. This is particularly true of the Blenheim, which is always a satisfactory pro-

The Quarantine Law.

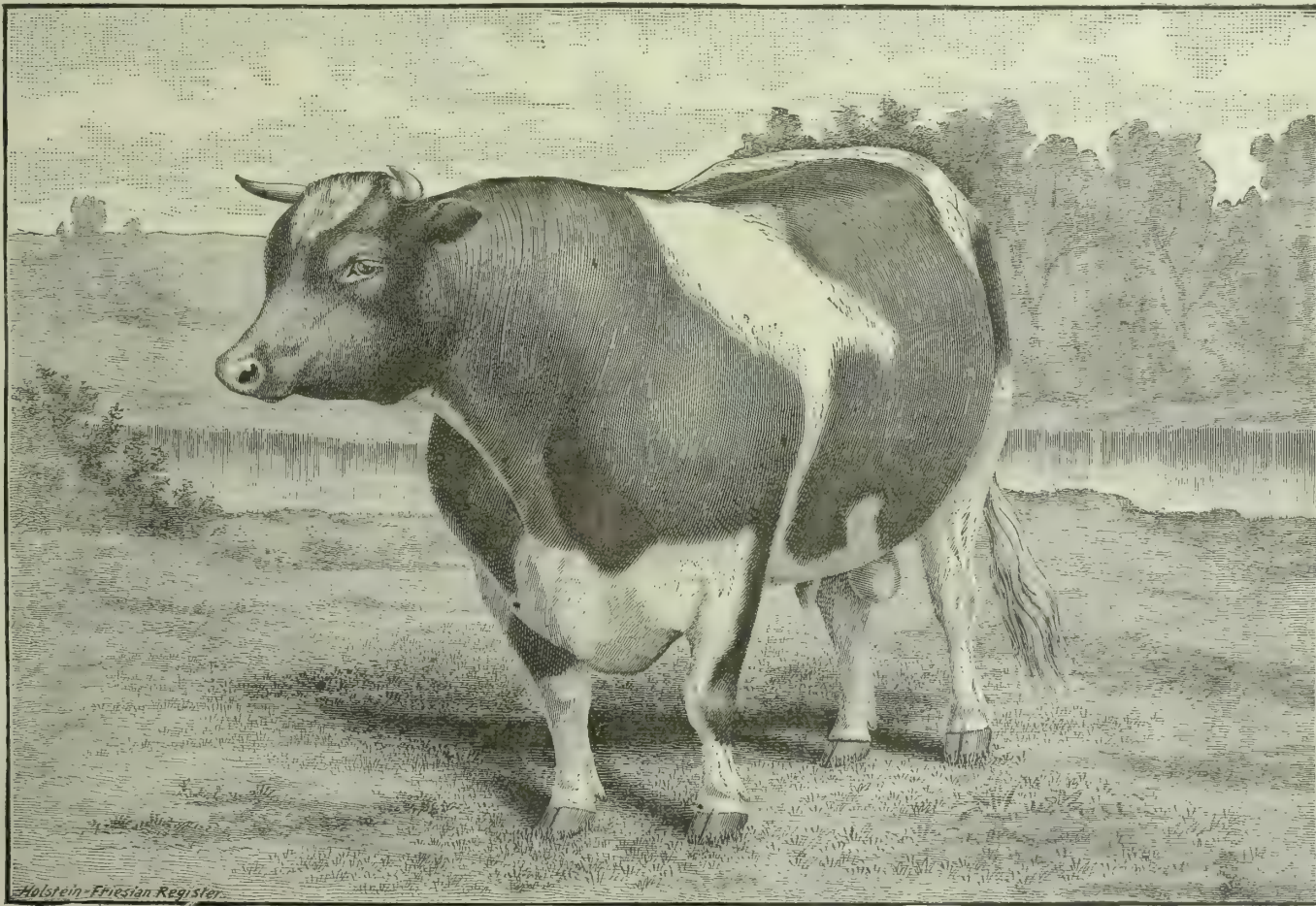
The *Sacramento Bee* having made inquiry, declares that Senate bill No. 626, "an Act to regulate the quarantine and admission of horses, cattle, sheep and swine into the State of California from infected districts," did not pass the Legislature, although the bill went to the Governor bearing the signatures of the officers of both houses, received executive approval and is being incorporated into the statutes.

If this be true, it is only another illustration of the carelessness which must be added to the other unfortunate qualities which are chargeable to the last Legislature. The claim of the *Bee* is that the bill never passed the House and that no record of its passage can be found on the records of that body. The Supreme Court has decided that a bill cannot become a law unless the journal of each house of the Legislature contains a record of the vote by which it was passed.

This fate of the quarantine bill decides that the last Legislature did nothing on veterinary matters. The Governor killed the bill for a State Veterinarian. It seems to us beyond question that proper

public veterinary work should be provided for in this State, as in all other commonwealths, but possibly the enactment of the last Legislature was not well calculated to furnish this public service. There was a bill introduced which seemed to us calculated to meet the needs, but it was side-tracked early in the session. It does not appear that the opponents of that measure gained anything, for both their own propositions have fallen. There was strong feeling among the Nevada and Arizona breeders against the quarantine bill, and as it now appears they have secured their wishes.

ALFALFA AND ALKALI.—The Kern County *Californian* claims that it has been established by local experiments that alfalfa seed sown in the burr or envelope, or in whatever its natural covering may be called, is much more likely to germinate and grow. It is surmised that this covering protects the seed from the action of the alkali during its most tender period, that of germination, and that securing this advantage the plants grow well afterward.



HOLSTEIN-FRIESIAN, MERCEDES PRINCE—A GRAND SPECIMEN OF HIS RACE.

beef and pork are commodities of this character, and that the law is an attempt, under cover of police power, to keep out all foreign dressed or uncured meats in large quantities.

USING WASTE PRODUCTS.—Dr. J. W. Gally makes the following suggestion to his neighbors of the Pajaro valley which is certainly worth trying: "At the beet-sugar factory there is a large pile of beet pulp, also a pile of waste lime. I suggest that about one-eighth of that lime to seven-eighths of beet pulp be used as a mulch around fruit trees to a depth of 1½ to 3 inches. The pulp is woody vegetable matter, which ought to yield itself to the influence of the lime, and in that way advantageously enter the soil. If the soil is heavy black soil, or marsh soil, or any soil containing a heavy per centum of humus, that is, rotten vegetable, the proportion of lime can be increased—or if the lime is mostly exhausted of its caustic effects the amount may be increased."

THE contract has been let for a large hotel at Redondo beach.

ducer in this locality; the Moorpark, however, promise little or nothing. Here and there a tree will have a fair amount of fruit on its branches, although most of the trees are nearly empty."

THE ALVARADO SUGARIE.—The Alvarado Beet-Sugar Factory, with the plant, buildings, machinery and water rights belonging or appertaining thereto, and also all the property and assets of this old company, including all claims and demands, and rights and causes of action against the Spring Valley Water Works, has been sold to the Pacific Coast Sugar Co. for the sum of \$150,000. John L. Howard is the president and C. A. Grow is the secretary of the purchasing company.

AGAINST THE SQUIRRELS.—The Alameda county supervisors have appointed D. W. Martin, W. S. Pelouze and Hiram Bailey a committee to confer with a similar committee appointed by the Contra Costa county supervisors concerning the extermination of ground-squirrels in the two contiguous counties.

THE FIELD.

The Beet-Sugar Industry.—No. 2.

(Written for the Rural Press by N. A. N.)

(Continued from last week.)

The cultural manipulations proper of the crop should begin as soon as the beets are up and the leaves sufficiently developed to distinguish the rows. Early and frequent cultivation cannot be too strongly recommended. It kills weeds scarcely started and forms a stratum of mellow earth which prevents evaporation by day and absorbs the moisture of the night. In the old country, cultivation is generally performed by hand, usually the "beet girls" coming from the poorer districts of East and West Prussia and from the mountainous parts, each taking a contract for a certain amount of acreage to hoe and harvest, thereby earning an average of 25 to 30 cents per day and house room. Here in California, however, where hand labor cannot be obtained, hoeing has to be effected by means of the horse cultivator.

Thinning Out Beets.

Two weeks later the beets are thinned out so as to leave the roots about seven inches apart. Be sure to commence as soon as possible. The best time is when most of the roots have reached the size of a slate pencil. If they have been planted by a drill in a continuous row, the easiest way is to cut out the spaces with a sharp hoe, deep enough to make it sure that no beet cut will grow again. In this country, however, where the price of manual labor is high, it might be of advantage to run a cultivator or horse hoe with spades six inches apart across the rows. The seed of the beets, however, presents a collection containing from two to six seeds; of these, about three are capable of germination and produce plants which appear in bunches. These have to be thinned by hand (mostly done by children), retaining the best and largest plant in each bunch—removing all the rest. Take hold of the best plant with your left hand and press it downward while taking the others in the right hand. Give the bunch in the right hand a twist as if you were turning a screw, and pull them sideways and upward. Do not pull them straight up, because by doing so you will loosen the one you wish to remain, and it will take many days before it regains its strength. Be careful not to break off the leaves only, leaving the roots still in the ground, for these would grow again and cause double work. No two beets which grow close together ever amount to anything in weight. Therefore it is well, about a week after the thinning, to look over the field, and wherever two are found together, one must be taken out. The thinning can be done best after a rain, but it should not be done too late. After the beets are the size of one's finger they cannot be disturbed without great injury.

When the beets are thinned out and have fairly started, the crop is almost secured, for soon the leaves will attain their full size, will cover the ground and by their shade will prevent the weeds from growing. After thinning, the crop receives about three hoeings or cultivations and more than this, if time allows, for the work should be continued as long as the leaves will permit. There is no weeding to be done in this country after the cessation of rains in the summer season, but the ground should be kept clean and loose, for no plant is more grateful for cultivation than the sugar-beet, or yields a more bountiful harvest in return for care bestowed.

After the final hoeing, no other care is necessary except to remove seed stalks that may occasionally appear, until the harvesting, which should take place according to the condition of maturity of the crop.

Harvesting.

Pulling the roots is sometimes effected by machines that have been devised for the purpose, but the method generally employed is hand-pulling, facilitated by the assistance of the plow, a narrow furrow being made near to the row which loosens the earth about the root and renders its extraction from the ground easy. This manipulation should be performed when the ground is in the driest condition; if it be wet at the time of pulling, the earth will adhere to the root and trouble will arise in the determination of the amount of tare in the delivery of the crop to the manufacturer.

The leaves are removed from the beets in the field by a large knife like that used in this country for cutting broomcorn, sufficiently strong and heavy that the operation may be effected at a single stroke. The leaves are very valuable for feeding stock on. However, it is not allowed to remove them until after the beets are pulled, because the sugar is formed in the beets by means of the leaves. After this, the beets should be covered immediately with a layer or coat of earth or with the green leaves at least, in order to prevent evaporation of moisture, which makes a loss in weight to the farmer and renders the manufacturing more difficult.

The time of delivery to the factories is regulated by agreement between manufacturer and grower, in order to obviate the possibility of arrival of beets above a certain limit on the same day, the reception of which would be impossible. If not delivered at once, the beets are stored in trenches, mostly temporary

trenches in the field where the beets have been grown, care to be taken to avoid even the slightest exposure to the air.

Storage of Beets.

In the preservation, the conditions to be avoided are too low or too high a temperature. In the first case, they deteriorate by freezing, which, however, is not so injurious if the roots can be worked before they have an opportunity to thaw, otherwise much of the sugar changes over to "inverted sugar" and must necessarily pass into the wastes in the process of extraction. If too warm, similar effects will be produced by growth of leaves, and this effect is always accompanied by a loss of sugar, besides increasing the difficulty of extracting the juice from the root. So, also, should the manufacture of sugar begin when the beets are ripe and contain most sugar, and it should be continued energetically as long as any beets are left, in order to dispose of the whole crop before too much sugar is lost, for every day after the beets are ripe they grow poorer in sugar. In the old country, beets are considered entirely unfit for extraction of sugar after February 1st, and most all factories close about that time.

Any excess of moisture must be scrupulously avoided in storing beets. If too much moisture be present, the roots have a tendency to rot, and the trenches must be thoroughly drained, so that any water that may collect in the bottom may flow off.

After having been packed in the trench, the beets are covered with earth, not with straw, which by no means should come in contact with the roots, because it is subject to packing and decay. The latter will be of course communicated to the stored beets. The depth of covering must be determined by the climate. In the old country the layer of earth sometimes reaches three feet in order to prevent freezing, but in this country it will be only necessary to prevent evaporation by the air.

Cost and Profit.

Now, the most natural question concerning this matter from the agricultural side is: What will be the profits to the farmer from this new culture? With careful cultivation a low average will be 15 tons beets per acre; at \$4, the money value will be \$60 per acre, which would seem to settle very satisfactorily the question of the profits to the farmer resulting from this new and valuable crop. Very little wheat land has paid as much as that for the past few years. This amount may, however, be much increased if the price will be calculated, as it properly should be, on the basis of the richness of the juice extracted from the beets. This system of purchase by density will encourage the farmer to careful cultivation. It places a check on the grower of roots of bad quality and becomes an incentive to effort in the further improvement of the saccharine value of the crop.

Another valuable item of profit to be set opposite the account of cost of the various operations of culture is the large amount of food for stock produced by this industry. An average crop of sugar-beets of one acre will provide for the grower a quantity of pulp resulting from the extracting of sugar equivalent in feeding value to over one ton of good hay, which, together with the large amount of green leaves, will furnish a large mass of food for cattle, sheep and hogs. The farmer will be able without enlarging his domain to double the number of stock, to obtain more manure, and with the aid of this manure to harvest larger quantities of grain from his fields, grapes from his vineyard, and fruit from the orchards.

Indirect Benefits.

But though a handsome profit is thus realized by the grower, it is nothing compared with the indirect profit, which is the result of the improvement of the land where beets have been grown. The influence on the land of the deep and thorough cultivation and the better manuring which go hand in hand with the growth of the sugar-beet, is simply wonderful. All other crops are increased, and their quality improved.

As a consequence of the beneficial influence of beet-root culture on the land, we find that its advance into any section is soon followed by an increase in the value of property, and we shall experience the same facts here as soon as the culture has become firmly established. Another advantage that may be claimed for, and one that would have great importance in California, is the utilization of the land annually left open to fallow, and this would effect a great saving and be a fruitful annual source of profit to cultivators—in the old country it has been radically extirpated bare fallows.

Many hundred acres of young orchards are set out in California, that will not bear for three to four years from planting, that, however, have to be cultivated. Would it not be a great thing for the owner to plant sugar-beets between the young trees and receive this way an income from the start of about \$40 an acre, besides benefiting the trees by the careful cultivation required by the beets?

There is still another consideration to which we would call attention. The production of sugar from the beet provides work throughout the entire year, in the factory in winter, when laborers on the farm are comparatively idle, and employment in the summer in the cultivation of the crop. In this particular, this industry is one of the greatest boons to the laboring classes that can be well imagined.

Finally, if we consider that from the introduction and subsequent extension of this indus-

try, sufficient sugar may be produced to supply our home demand, it would not only become the cause of retaining annually in this country about \$100,000,000, and a source of employment to over 100,000 laborers, but might at the same time become as fruitful a source of revenue to the Government in the future as it is to the European Governments to-day.

How to Introduce the Industry, Etc.

That we have in various parts of California a considerable area that will produce beets with a high percentage of saccharine matter, no one doubts. Now then, the best way to introduce this valuable industry is to try. Seeds of rich sugar-beets should be distributed to farmers throughout California, accompanied by directions how to grow beets. The farmers who undertake to carefully make the experiments should be requested to return an average sample of the crop, describing the soil in which the beets are grown and the treatment of it, the yield, etc. After the crop matures, samples of beets, and if possible, the soil, should be analyzed not only for sugar (and especially that kind of sugar which would turn the polarized light to the right) but also for non sugar. These results would afford valuable suggestions and would justify a decided opinion about the propriety of the introduction of the industry. To start a large and expensive factory without such foundation would be to run a great risk, and to establish small and cheap factories would always prove a failure.

In obtaining supplies and securing capital for establishing a factory in any section for the extraction of sugar from the beet, the farmers, who must supply the raw material, are induced to subscribe for a certain amount of stock, and have in consequence a voice in the management. They form a joint-stock company, and are bound to deliver to the factory the beet crop of a certain number of acres for each share subscribed (beet shares). For the last ten years, however, the sugar factories have become very expensive, being profitable only when very large, and when furnished with the latest inventions. Therefore, the farmers could not afford to build their own factories, but have to issue money shares besides, and contract loans against mortgage in the buildings and machinery. This plan, however, will not work well in a country where the industry is new, and cannot be introduced until the beet-sugar industry has proved an unquestionable success, and is known to the people as a safe thing to invest in.

The proper location for starting a factory would be the center of fertile agricultural districts with good transportation facilities for delivering the beets to the factory by cart, railroad and water from more remote parts, and for the transportation of raw sugar to San Francisco. As a great deal of limestone is used, a good quarry should be in the vicinity, and, of course, sufficient fuel, coal or wood, which in this country might be replaced to advantage by coal oil. Then with a modern-built factory, equipped with the latest improved machinery, and with good rich raw material, and conducted upon a sound basis, this industry will always be a monetary success here as it has been in the old country.

There is no fear that it may be overdone, for the consumption of sugar in the U. S. is as follows: 1878, 773,742 tons, or 36 pounds per capita; 1887, 1,397,356 tons, or 52 pounds per capita.

Sugar is no longer a luxury, but a necessity. The cane-sugar product of the world in 1853 was 1,157,650 tons; in 1886 it was 2,445,000 tons.

The beet-sugar output of the world in 1853 was 164,820 tons; in 1886 it was 2,580,000 tons. The humble beet has overtaken the high cane and is ahead.

In Germany the duty paid to the Government by the manufacturers makes a heavy reduction of the profit realized by the production; it amounts to about \$4 per ton of beets. But this is in a great measure the reason why in Germany the manufacture of beet-sugar is developed to such admirable perfection as is the case. The more sugar that could be gained from the beets, the less the duty drew on the profit of the manufacturer, for the duty on one ton of beets remained the same whether 6 or 12 per cent of sugar were extracted. All the efforts of the farmer and the manufacturer had the aim to produce most sugar from a certain weight of beets, and to observe the strictest economy in all the modes and apparatus employed in separating it, and every possible means that has been devised for reducing the cost of securing the sugar is being adopted.

In the introduction of this industry here we have the advantage of the experience gained in the European works, so that, instead of having to begin upon a raw product of low quality and crude methods of culture and manufacture, we may start with varieties of seed and those methods of culture and manufacture which have been found by long practice to give the highest return for the capital and labor employed. All we have to do is to adapt this experience to the peculiarities of this soil and glorious climate.

Pacific Bank, San Francisco.

A RUTLAND, Vt., marble manufactory company has a large number of men at work on tombstones for the Government. They turn out about 650 a week, and have finished altogether 13,000.

THERE are 65 flowing artesian wells in the State of Nevada.

THE GARDEN.

Eastern Market-Garden Methods.

From an essay on "Market-Gardening Around New York," read by Peter Henderson, the veteran horticulturist, at the Farmers' Institute, Jamaica, N. Y., we take the following points as suggestive to California readers, if not of direct local application:

As most of those now engaged in market-gardening too well know, it is not the profitable business it was 20 years ago, yet we have so simplified our operations of late years that even at the lower prices there is still a fair profit in the business—certainly more than in ordinary farm crops.

First of all is the soil. Choose land, when it can be done, that is level and well drained by having a gravelly or sandy subsoil, and not less than ten inches in depth of good soil. If you are not a judge of soil, look around the neighborhood and observe the corn or potato or hay crops. If these are not strong and vigorous, rest assured that the soil is not such as will answer for market-garden work. Again, get as near to your market as possible, and see that the roads leading thereto are good. This is particularly important if your market is a large city like New York, Boston or Philadelphia. If you are growing for a local market—supplying a small town at retail—this is not so important. The business of market-gardening, though healthful and fairly profitable, is exceedingly laborious, from which any one not accustomed to manual labor would quickly shrink. The labor is not what might be called heavy, but the hours are long—not less than an average of ten hours a day for both summer and winter. No one should engage in it after passing middle life, neither is it fitted for men of feeble constitution, for it is emphatically a business in which one has to rough it; and if it is to be prosecuted successfully, the owner must put his own shoulder to the wheel at least as strongly as his roughest employee. The most successful market gardener I ever knew was John Riley. I put him as foreman in charge of my market gardens when he was but 21 years of age. In six years I sold him the place he had charge of, consisting of 8 acres, 2000 sashes, horses, implements and crops, for \$21,000. He paid \$3000 down (which he had saved from his wages and what I had paid him for boarding the men), and in three years paid off the mortgage of \$18,000, solely from the profits gleaned from his 8 acres and the 2000 hot-bed sashes. This was in war times, however, when the profits were nearly four times what they are to-day; but Riley would have made market-gardening a success almost under any circumstances. He was strictly methodical. He worked an average of eight men summer and winter, and no matter what work was being done, whether inside or out, he worked the whole in solid phalanx, leading always himself. He was ignorant and uneducated—could hardly write his name, but no Jersey market gardener ever made his mark so prominently as he.

The capital required for beginning market-gardening in the vicinity of any large city should not be less than \$300 per acre for anything less than ten acres. The first year rarely pays more than current expenses, and the capital of \$300 per acre is all absorbed in horses, wagons, implements, sashes, manures, seeds, etc. If the capital be insufficient to procure these properly, the chances of success are correspondingly diminished. Above all, be careful not to attempt the cultivation of more land than your capital and experience can properly manage. More men are stranded, both on the farm and garden, in attempting to cultivate too much, perhaps, than from any other cause.

It has been the practice in the past to use hot-bed sashes almost exclusively for the purpose of forcing vegetables, or forwarding plants for use in the open ground. But of late years greenhouses are being largely used, both for the purposes of forcing lettuce, radishes, beets and cucumbers, as also for growing plants of early cabbage, cauliflower, lettuce, celery and tomatoes, and, in either case, we believe that in well-constructed greenhouses not only is the work better done, but that the saving in labor in three years will more than offset the greater cost of the greenhouses. We ourselves grow immense quantities of vegetable plants of all kinds, all of which are now started in greenhouses in the following manner: We make our first sowing on February 1st, in our greenhouses, where the temperature will average about 70 degrees—that is, about 60 degrees at night and about 80 degrees during the day. Where there is not the convenience of a greenhouse, a hot-bed will answer the same purpose. A hot-bed, made with manure, about two feet deep, in a proper manner, produces just about the same temperature and general conditions as a well-appointed greenhouse will. We now invariably sow the seed in shallow boxes (those used in the importation of tin) which are 12 inches deep and about 20 inches long by 14 wide. We use any light rich soil for the purpose, sowing enough seed in each box to produce 1000 to 1500 plants, or if sown in the hot-bed, without the boxes, each 3x6 foot sash should grow about 5000 plants; but we find it more convenient to use the boxes than to sow in the soil, put direct on the bench of the greenhouse, or on the manure of the hot-bed. The plants sown on February 1st, in a temperature averaging 70 degrees, will give plants fit to transplant in

about three or four weeks. We then use the same kind of shallow boxes, putting in the bottom of each about three-fourths of an inch of well-rotted manure. Over that we place an inch of any ordinary rich light soil, smoothing it so as to have it as level as possible. In these boxes, which are 14x20 inches, we put an average of about 150 plants. After transplanting into the boxes, they are continued to be grown in the same temperature for about ten days. They are then placed in a temperature averaging 55 degrees, where they are allowed to remain for 10 or 12 days, and finally are placed in cold frames. The boxes should be placed as close to each other in the cold frames as they will stand—about eight boxes fill a sash, thus holding about 1200 plants. If the weather is cold, they are matted; if not, the sash will be sufficient protection. For the past five years we have each season grown about half a million of cabbage, cauliflower, celery and lettuce plants in this way, and have never failed to get fine plants, much superior to those raised by the old cold-frame plan of sowing in the fall.

Plants sown on the 1st of February are transplanted into the boxes about the 1st of March, and are fit to be placed in the cold frames about March 10th or 15th, and make fine plants to transplant to the open ground any time after the 1st of April, if they have been carefully attended to by watering, airing and protecting from frost. These dates refer particularly to the vicinity of New York City, where we can plant out usually in the open ground all kinds of cabbage, cauliflower and lettuce plants from April 1st to 10th. If in districts where they cannot be planted out sooner than the end of April, then the sowing should not be made before the 15th of February, and the process of transplanting, etc., gone through as before stated, so that the plants will be in condition to plant in the open ground by end of April. In sections where cabbage cannot be planted in the open ground before the 1st of May, the sowing should be delayed until nearly the 1st of March, and the process of transplanting in the boxes or frames the same.

Twenty-five years ago the market gardeners of New Jersey, mainly located in Hudson county, grew better vegetables than the Long Island men, but their limited area of land getting less and less annually in consequence of the inroads made by buildings, does not allow them to give their lands the needed relief of laying a portion yearly down to grass, so that their grounds have become actually surfeited with manure, and for this reason vegetables, such as cabbage, lettuce and celery, do not now average as good as those grown on Long Island, or other districts adjacent to New York, where the land is cheap enough to allow one-third to be put down annually with some grass or clover crop. I believe that in a garden of 15 acres, if one-third is laid down in grass each year, and the balance kept under the plow, the gross receipts will be greater and the profits more than if the whole 15 acres was under tillage, for less labor would be required, and manure tells better on sod land than on land under tillage.

The subject of manure is one of never-failing interest to the gardener and farmer. I can tell you nothing new on the subject except to say that the use of the dried peat moss, now being used in the cities for bedding, is likely to be of great value to the market gardener, if it can only be had in sufficient quantities. We have had it in use in our own stables for about a year and find it not only more economical than straw for bedding, but its absorbing qualities make it of great value for fertilizing purposes. We can buy ordinary straw manure in our vicinity for \$1 per team-load, but we are buying all we can get from stables where the moss is used at \$2 per ton, but it is yet quite scarce. It is claimed that the source of supply of the peat moss in Europe is almost inexhaustible, and it is now offered by three or four firms in New York at prices ranging from \$12 to \$14 per ton, and it is hoped competition will bring it yet still lower.

The ordinary stable manure is yet used almost exclusively by the market gardeners of Hudson county, N. J., and that too, at the rate of 75 tons to the acre. Very little phosphates or other concentrated manures are used on our lands, which are continually under tillage; these are always more telling on land broken up from sod, where the fibrous roots of the sods stand in lieu of stable manure.

The subject of market gardening is too large to attempt any detail of general culture, but I would advise that all engaging in the business of market gardening should have attached to the business greenhouses to a greater or less extent, not only that they need never fail to give a good return for capital invested, whether for use in forcing vegetables, fruits or flowers; but, in addition, a matter of much importance is that the labor of the workmen can be utilized as well in midwinter as in midsummer. This enables the employer to keep his hands all the year round, instead of having the annoyance of hiring inexperienced men when the work begins in spring. From my first beginning of the business, now over 40 years ago, we have always used greenhouses in connection with our outdoor gardens, and in consequence have been able to keep our old hands, at least 25 of whom have been with us from 10 to 30 years.

We pay these men nearly twice the wages of inexperienced workmen and find it has paid to do so, for in all the years we have been in business we have never passed one where the balance has not been on the right side of the ledger.

HORTICULTURE.

Sweat-Rooms and Cartoons.

EDITORS PRESS:—I have received a letter from J. A. McCune of Watsonville, asking information concerning the profit in dried fruit packed in "cartoons;" and the advantages, if any, of the double-wall sweat-room over the dead-air chamber. As there seems to be some doubt as to the merits of the double-wall sweat room, I will try to illustrate its advantages over others, since the sweat-room seems to be necessary to the proper preparation of dried fruit.

We must first consider whether or not the sweat-room is absolutely necessary to large packers, for while there is no discussion on the subject, it is appropriate to treat of it, in referring to the proper kind of sweat-room.

I will venture to assert that what we know as the sweat-room was an outgrowth of a storage-room for the fruit, until enough had been dried to turn out 1000 or more 20-pound boxes. I do not think that the first packers had any particular use for a sweat-room, as something distinct from a storage-room. They certainly did not if they dipped their fruit. As we all know, the sweat-room is used to soften the fruit and to prevent it from shriveling up and becoming hard, but where 300 or more hands are employed, and a car of fruit, in 20-pound boxes, is shipped every day, I hold that the sweat room is not necessary. What is the object in sweating fruit if it is to be dipped? This has often occurred to me, but I will not attempt to answer it.

Sweat-rooms are intended to keep the fruit from drying up, or becoming hard, until the time comes for dipping. Now, would not a common store-room answer the purpose? What is the object of sweating when enough fruit can be taken from the "yard" every day to fill orders? When fruit is piled up on the floor of a room, will it not sweat enough of itself to preclude the necessity of providing a moist atmosphere for an artificial sweating? I do not think this question has ever been discussed, but I think it will bear investigation. It requires an extra man to take care of a sweat-room, and if it can be proven that as a sweat-room it is unnecessary, one man less, at least, would be needed in the drying-house force. Again I return to the question, Is artificial sweating necessary when fruit is to be dipped? Probably valuable information on this question could be given by G. W. Meade, 18 Drumm street, San Francisco, the San Jose Packing Co., or any of the large driers. I will treat of this question at some future time.

The object of the double-wall for sweat-rooms is to secure an evenness in the temperature of the room. In my opinion, the temperature of the single-wall room or that of the dead-air chamber, will not answer the purpose. There is a certain degree of elasticity that dried fruit must have to pack properly, and I believe that dipping, simply, without sweating, will give the required softness. I do not see the object in sweating if fruit is to be dipped, except that fruit increases in weight when sweated, and further increases in weight when dipped, by the absorption of water. If we are to dispense with dipping, and depend on sweating to soften the fruit, then I prefer the double-wall room, with the space filled with sawdust, for the simple reason that the sawdust-wall preserves an evenness in temperature, and that is very necessary in sweating. The warmth of the single-wall room has a tendency to wilt the fruit, and the dead air chamber is too cold. These reasons are sufficient. I think the sawdust wall preferable above all others for sweat-rooms. Sawdust is cheap, and as far as I know, is a non-conductor of the extremes of either heat or cold. When sawdust is used, no particular pains need be taken to make the wall tight.

The temperature of the single-wall room varies, and is to be shunned on that account, and the dead-air chamber is too cold, and nothing can sweat in a cold room. The sawdust-wall is preferable for many reasons.

In regard to the profit in "fancy fruit" packed in "cartoons," I would say that if one has a big lot of large and finely-formed freestones, it will pay to pack in "cartoons." It is foolish and expensive to fool away time on a few "cartoons." They sell for fancy prices, but it is expensive to pack them.

It is better to use large freestones for "cartoons," for they make a better appearance than clings, when exhibited to the Eastern epicure. There is no objection to clings, except that when stoning them, the blood-red meat next to the stone is cut away. Use only the finest peaches for "cartoons." They should be the cream of the pack. The bigger they are the better, providing they are the same size. They must be entirely free from cuts, warts, and brown blotches. If you have the choicest fruit, you can easily exhaust your taste in packing it. Lace paper, narrow colored ribbon and pretty cards are necessary. Large packers don't pack in "cartoons" to a great extent, for they can't always secure enough big fruit to justify them in packing that way.

The size of the fruit, the taste shown in packing, the sameness in size, and the absence of cuts and blotches, are the desired things.

Porterville, Cal.

J. OLIVER.

Catalogues.

EDITORS PRESS:—Since I have been a fruit-grower I have taken a great interest in the various catalogues of trees and plants, and have made quite a collection of "cats," as we call them.

And most of these "cats" are fearfully and wonderfully made, and if there is a bad place where all story-tellers go, the makers of some of these catalogues better repent before it is too late.

Some of the catalogues are beautiful specimens of printing and are gorgeous in many colored covers and plates, but their outward gorgeousness is put to blush by the tropical magnificence of their descriptions.

The first thing which astonishes the would-be fruit-grower is the number of varieties of each kind of fruit. If he intends to put out a big orchard he would often need but little urging to try a few of each kind, and if his orchard is in an untried locality there would be some reason in trying a number of varieties. But why nurserymen should raise hundreds of varieties where more than half of them are comparatively worthless or almost exactly like some other variety in their list is what the uninitiated cannot perceive.

I do not think it a good excuse to plead that people call for them and they can sell them. I believe they would sell just as many trees if they refused to raise the poorer varieties and would add to the list they do offer the names of these others stating why they are inferior.

By trusting to catalogue statements which are nearly always unqualified, one may be badly deceived about the bearing qualities of the trees. For example, in a California catalogue I find the Boston nectarine, the Flemish Beauty pear, the Bulgarian prune, the Gen. Hand prune, the R. I. Greening apple and the Breda apricot all marked as prolific, fine, etc., when with me they are all nearly worthless. And so it is with dozens of other varieties. That all of these do well in other localities doesn't help my feelings or pocket. Take for example the nectarines. The Hardwick does very well indeed in my high, warm, mountain canyon. All the trees of that variety averaged 150 pounds each at three years and 175 pounds at four years old, but Boston, New White and Early Violet are utter failures. Last year I tried the Stanwick and one other unnamed nectarine. These are now full of fruit buds and blossoms and promise to be very productive.

The Languedoc almonds planted from catalogue recommendation in 1884 have been for three years the fullest of blossoms of any trees in my orchard, and they have borne (six of them) over 20 almonds so far. The Commercial I planted last year has as many almonds on now as the six Languedocs have borne. The Golden Gate, planted last year, also look promising, their few young almonds being firmly attached to the tree, and would probably mature should I leave them on.

No kind of peach I have yet tried has been a failure, though the values do not agree with the catalogue rating. I (unfortunately) kept but two Foster peaches, one of which bore 425 pounds at four years and quite well at two and three years from planting.

A seedling is the finest eating peach I have, though somewhat small, and the Wager the most profitable. It is good dried and good canned, and poor eaten from the trees, though some like it. The Silway is the only peach I have which ripens unevenly—that is, one side ripe and the other quite green. In the lower valleys that is a failing with many varieties of peaches, apricots and other fruits.

I have four early varieties, which the catalogues say are distinct, that I can't tell apart except one kind marked the earliest ripens about a week after the others begin, and their red cheeks are like those of a tree peddler—they are all cheek.

According to the catalogues and the labels and my bills, I have over 20 varieties of peaches, but, omitting the seedlings, the ignorant fruit-taster can't find half that number. The four early varieties are all Alexanders, the next are all Crawfords, the next Yellow Wagers, the later ones Silways, and the final ones (if the birds have left any) the October. Yes, he will find two more varieties of clings, and there his powers of discrimination end. He is not posted on catalogues, that's what's the matter.

The catalogue student gets badly mixed up in comparing prices when he makes out his list. If he has not studied up for examination, he fails to see why A should quote apple trees at 10 cents and B at 30. C offers him prunes for 5 cents and D the same kind for 35. I bought my first apricot trees for 17 cents and my last ones for 4, and the last ones were the better trees. One man wanted 50 cents for pecan trees one year old. I paid 15 and afterward found I might have got them for 10.

True, it often pays very badly to buy cheap trees, if you buy weakness, poor stock, forced buds or scalebugs along with the trees.

I doubt whether it pays to buy some trees at all. It certainly does not pay a poor man.

The finest figs I have in my orchard were from cuttings I got from a neighbor. "Fifty cents each," said a cat, which claimed to make a specialty of figs. I got one, and in two years it has grown to (almost) two feet high; a cutting, just as old, is as big as my arm, and eight or nine feet high and cheerfully bearing figs by the hundred.

English walnuts can be bought at from 25

to 50 cents catalogue prices, and the trees you get (yearlings) at four years old will be almost as big, though not so thrifty as some where I planted the nuts two years ago. California walnuts at 40 cents! I took my wagon and got a wagon-load of nuts one half afternoon. They came up like corn (i. e. as easily) and if you put them in rich ground and keep off all limbs, they do grow into a tree, but they are very eager to be bushes instead.

By and by I expect to see a remodeling in the catalogues. We will see the pages devoted to fruit trees divided into columns headed somewhat as below:

NAME.	Time of Ripening.		Bearing Quality.	
	First	Last	Am't.	Regularity.
4	5	6	7	
Eating Quality.	Qual. Drying Quality.	Qual. Canning Quality.	Size of Fruit.	
Flavor	Sweetness	Waste	Waste	
8	9	10	11	12
Color of Fruit.	Flesh of Fruit.	Vigor of Tree.	Soil it Does Best in.	Climate it Does Best in.

With the above information given in percentages (100 being perfect) in columns 3, 4, 5, 6, 7 and 10, and in descriptive words in the other columns, one could tell fairly well what varieties to buy, though owing to our extreme ignorance about the effects of climate and soil on the different varieties, it is always more or less an experiment when one plants an orchard in a new place.

Putting information in a tabular form makes it so very much easier to understand and compare. The long list of descriptions in Downing, Thomas' and other books on fruits could be thus arranged and be of many fold greater value to the average student. The very fact that much of this information is lacking would be shown by the numerous blanks, a reliable statement would have to leave and would be of great benefit to fruit-culture, for it would stimulate many growers to help supply the lacking knowledge from what they have already learned or from experiments they would be encouraged to make.

We all like to find out things we think no one else knows.
O. M. DRAKE.
Springville, Ventura Co.

Apples in Santa Barbara.

EDITORS PRESS:—A few days ago, as I walked through the streets of Santa Barbara, I noticed, in the display of fruits for sale, apples from Oregon, Kansas and other places more numerous than I am now able to name.

Of all the apples sent here for sale, I see none that excel those grown in our own county. The cost of those apples and packages in Oregon and Kansas must be something which, added to the freight, commission, etc., must make a pretty large price for apples.

If the farmers and fruit-growers of our county have much inclination to keep the money at home that is now sent away for apples, they can do so, as we have plenty of good soil and a climate that can, with a reasonable amount of labor and expense, grow fine late-keeping apples enough for our own people and many others.

Some of our Lompoc (this county) neighbors boast of their fine apples, some of which they sold in our market in Santa Barbara at five cents per pound. I do not think it strange that our neighbors should feel proud of their apples, for they raise good ones, and four to five cents per pound is a good price. There are many acres of land from near the coast to 30 miles back among the hills and mountains which will grow the finest of apples if given even half a chance.

The time is soon coming when roads will be built, so we can get our apples and other fruits in the markets at rates which will leave the growers good margins and reasonable prices for the consumers.
O. N. CADWELL.
Carpinteria, Santa Barbara Co.

AN EFFECTIVE WASH.—Our orchardists are paying strict attention to the scale and red spider, and they have succeeded in heading them off. The most successful wash, what is known as the old sheep wash, composed of 20 pounds of sulphur, 20 pounds of unslacked Diamond lime and 10 pounds of salt to 60 gallons of water; boil sulphur with half the lime (Diamond unslacked), boil one hour; then slack balance of lime, add balance salt; mix thoroughly while boiling. In an interview with D. S. Smalley this week he reports this wash as being very successful and is used by a majority of our orchardists. The Bean spray pump is used almost exclusively. This pump is also just the thing to whitewash fences and barns, and does away with the old-fashioned way.—Haywards Journal.

CAPITALISTS, supposed to be connected with the Standard Oil Co., are investigating the oil-fields in Santa Barbara county.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Executive Committee State Grange, 220 Mar-
ket St., S. F. April 10
Deputies' Meeting, 220 Market St., S. F. April 11
Santa Rosa Harvest Festival, Santa Rosa, Apr. 13
Sonoma Co. Pomona, Grange Hall, Santa Rosa, Apr. 17
Sonoma Harvest Festival, Santa Rosa, Apr. 20
Yuba City Grange Picnic, Yuba City, May 14
San Joaquin Co. Pomona, Lodi hall, Lodi, May 25
State Grange, Sacramento, Oct. 1

Oregon.

Lane Co. Pomona, Mt. Holly Grange, May 4
State Grange, Salem, May 28

Next Thursday's Meeting.

The meeting of the State officers, Past Masters and Deputy Lecturers, with visiting Patrons, at Grange headquarters, 220 Market street, S. F., at 10 A. M., Thursday, April 11th, should be one of prompt and full attendance and of important results. It is called by Worthy Master Overhiser in accordance with a resolution adopted by the first Deputy meeting, which was held one year ago.

While it is to be a general conference for instruction in the secret work and the good of the Order, we recently offered for consideration the following suggested order of exercises:

Exercises Suggested.

1. Report of the Worthy Master.
2. Reports of the General Deputies.
3. Reports of the Deputy Lecturers.
4. Report of the Legislative Committee.
5. Consideration of the letter of the Worthy Master of the National Grange concerning the organization of a Grange Inspection Board, to visit and encourage Granges in different parts of the State.

SUBJECTS FOR CONSIDERATION.

6. Matters relating to the meeting of the National Grange.
7. The best plan of action for increasing the number of Granges in this State.
8. The best plan for adding new members to the Granges already organized.
9. Arranging the best dates for subordinate Grange and union Grange picnics for the convenient attendance of speakers and to make them all a success.
10. The matter of an excursion to Oregon.
11. Plans for co-operation in making purchases.
12. Questions and decisions relating to the work of the new combined ritual.

We hoped the above suggested order of exercises would be discussed and amendments and additions recommended. Although no proposed changes have reached this office, we presume the program will be considerably changed and added to for the benefit of the conference.

Every Patron should have all propositions for action written out, after due consideration and all arguments well prepared to present concisely and plainly, in a manner to consume as little time as practicable. Possibly an evening session may be necessary for imparting secret work to new Masters or Deputies, but all business that can should be transacted during the day, so as to give time for any permanent committees to confer in the evening. Still, let as many Patrons as possible come prepared to stay till the work is well done, if it takes even two or more days.

Discuss and Report.

Secretary Edward Bradford of Isabel Grange, Oregon, wrote us some good notes about that Grange, and we have to thank him for calling attention to the complaint made in some Oregon paper, "that only one farmer in ten belongs to the Grange, and that if the Grange had become useful by discussing practical questions in agriculture, it was not known to outsiders." Whether intended or not, this Oregon contemporary has done the Grange a kindness by calling attention to the fact that there has not been as much discussion on agricultural subjects as there should have been in our Granges. There is no real reason why the Grange should not be as valuable in the way of exchange of new ideas and all farming information as the Farmers' Clubs which preceded the Grange. In fact, the opportunity is far better for good discussions within the gates than could be possibly afforded in an open meeting of farmers. Patrons know better than any one else the difficulties which may prevail in Farmers' Clubs where the time is often monopolized by parties whose interests are diametrically opposed to the real welfare of the farmer, so much so that Farmers' Clubs are apt to be deserted by the very best and many of the ablest practical agricultural speakers.

We are happy to state, further, for the benefit of both Patrons and outsiders, that the action taken at the last session of the National Grange, whereby the ritual of the

subordinate Grange now combines the degrees for male and female into one and thereby lessens the time used for the conferring of the degrees fully one-half, will give the time ordinarily needed for discussing questions of interest to the members.

To the Oregon editor we would further say that there is a good deal of discussion had in our different Granges on agricultural subjects that does not get reported either for the Grange paper or for the local papers in the place where the Granges are held. We have repeatedly urged that the Secretary or some other officers should take pains to report, not only for our own paper, but for their local paper. The publication of a local report tends strongly to increase the interest of the meetings. It gives the good ideas expressed a world-wide circulation, and we are glad our contemporary has called attention to this subject.

From Past Master Steele.

Without feeling that we deserve any such high commendation for our efforts as Bro. Steele expresses in the following, we are certainly made thankful and encouraged by the good opinion of so able and devoted a Patron, and are pleased to give his good words concerning others and the cause to our numerous readers, hoping it will lead many to work more vigorously and hopefully than ever. It is written in response to a letter of inquiry concerning his health, after a long silence of his interesting pen:

I have been so much entertained in reading the Rural Press and California Patron, and am so well pleased with your success, I have feared it would be an interruption for me to attempt assistance not needed. If you have any news not published in our Grange organs, hold on to it; don't think I could bear it just yet. It makes me happy to know your efforts are appreciated. The Press and Patron are just what I expected. The evidence of appreciation is what I had hoped.

I am glad to know of the good time you and Bro. Flint enjoyed at Tulare and Bakersfield and the oil regions in Kern county. You are sure of that compensation for unselfish effort in a good cause.

When I think of Bro. Flint, my confidence in humanity is revived and strengthened, and I feel proud to call him brother. The time, talent and money so freely bestowed on our Order by Bro. Flint have contributed largely to its success in California, and it is putting it mildly to say he is entitled to the confidence and gratitude of every Patron of Husbandry.

The weather is delightful again since the bountiful rains, and the country is beautiful. There is every prospect of a fruitful season.

I have been off the farm but once since my return from the city in January. Am feeling pretty well now, and hope to be with you at the Deputies' meeting in April. My wife has been very sick, and I could not leave her; but she is feeling much better now, and I hope her health will continue to improve. If health is restored to us, it will be a pleasure for me to aid as best I can the forward movement in our Order. In any event, I shall mingle my sympathy in your efforts and participate in the joys of fraternal relations.

The prospects for our Order seem to me very bright. What we need now is weight of numbers. After a long struggle, a nucleus of faithful workers, thoroughly informed and imbued with the purposes of our Order, has been gained and united in fraternal sympathy, and there will be no danger in filling our ranks with progressive farmers and their families.

Membership in the Grange is now no uncertain step, but a declaration of intention to live in obedience to declared principles that commend themselves to the good and true everywhere, not in theory merely, but in practical results already gained.

Welcome, then, thrice welcome, progressive toilers of the farm, to our hearts and our altar. United, we will elevate agriculture through human culture. Yours fraternally,
Pescadero, March 25. I. C. STEELE.

OUR office was visited and inspected last week, from our electric pressroom in the basement to the editorial den and business office on the upper floor, by Sister Ohleyer, the wife of Bro. Ohleyer of the Sutter Farmer, and Sister Josie Walton, Secretary of Yuba City Grange. The object of Sister Ohleyer's visit to San Francisco is thus pathetically described by her managing editor:

Mrs. Ellen Ohleyer, the better-half of our "chief," is in San Francisco aiding in the subjugation of her first-born grandson.

A LETTER from Bro. J. W. Mackie of Tulare informs us that Worthy Overseer Davis was there and they had a special meeting with good attendance March 27th,

Letter-Notes, Etc.

From Nevada County.

HIGHLAND RANCH, March 20.—I expected to go out a part of last week and this to work for new members for Eureka and Magnolia Granges. We hope to get a class of ten for each. I have so much to do at home that I find it impossible to get away, as much as I would like. I am so much pleased with the Press and Patron that I will do all that I can to sustain them. I do not see the way quite clear now for me to get to the meeting on the 11th of April, but if I do not, will try and do what I can for the cause in this part of the country.—V. W. STILL.

We have to thank Bro. Still for his good work for the Granges in his foothill district. He has a sturdy, free and independent constituency that the Grange everywhere should encourage. They have more difficulties in the path than valley "pilgrims," and are very deserving for their good faith and perseverance in times past. Our brethren in Plumas and some other border quarters are likewise worthy of praise for their fidelity.

Bro. Still, we want you to impress all Patrons and farmers in your jurisdiction that this is a glorious season for the P. of H., for California, in the prospect of a good increase in numbers through the new work under the combined ritual; the conferring of the sixth degree (Flora) upon all Patrons who will attend the State Grange in October, following with the rare pleasure of sitting in the National Grange, and receiving the honors of the seventh degree. The meeting on the level with the veteran and whole-souled members of the highest council of the P. of H. in the world, and entertaining them within our own Golden Gate, as it were, is an opportunity more rare than many of us can ever expect to enjoy again.

If the National Grange really sits in our State Capitol next November, we have no doubt the display of the handiwork of our yeomanry and the products of our soil and climate will excel everything of the kind ever attempted in this country.

Fellow-Patrons, we have much to look forward to with rare anticipations, and to labor for with cheerful hearts and willing hands. Remember the work of each Patron in the most distant corners of our jurisdiction is a matter of interest and encouragement to all.

From San Lucas.

SAN LUCAS, March 27.—The articles sent by you have duly arrived, and will be acknowledged after our next meeting. The San Lucas Grange has not been able to meet for some time past, owing to the unsettled state of the weather and the inability of the Patrons to cross the Salinas river to attend, the river being unfordable. This Grange will not be able to make any returns for the quarter, as no dues have been levied as yet, nor have we adopted a Constitution and By-laws, which we will do at our next meeting. In fact, we have not had our charter two months. By next quarter, however, we propose to do everything in good style.—S. SHERWOOD, Sec. San Lucas Grange, No. 284.

WATSONVILLE, March 30.—We had a meeting to-day of unusual interest, the result of which you will receive later. Our Worthy Master, E. Z. Roache, gave us a finely written, original essay, which was earnest, pathetic and impressive. Our rituals were received all right and the work was partly exemplified. Fraternally—S. J. KIDDER.

[We are anxious to get the full report of this meeting of "unusual interest." When the usual are interesting the unusual must be more so. While we desire news from all our Granges, so that every member of our Grange household shall be posted on the general movements of all, yet we especially desire prompt returns when our intellectual appetite is whetted by such brief notices as the above.—EDS.]

No More Railroad Commissions.

General McNulta, receiver of the Wabash railway, has sent a telegram to Judge Cooley, chairman of the Interstate Commerce Commission, urging an early ruling as to the legality of paying commissions on the sale of passenger tickets. General McNulta says the Western roads continue to pay commissions, and no meeting has been called with a view to stopping it. As a result of the telegram, Judge Cooley has wired Chairman Abbott of the Western States Passenger Association as follows: "What Chicago roads, if any, still pay commissions on passenger traffic? If any, see if it is necessary to summon them here in order to stop it." It is probable that a meeting will soon be called to consider the question.

Grange Halls.

Bro. Cobb is engaged in a good work in the Grange Visitor. For several issues he has been reminding Secretaries of Michigan Subordinate Granges to report whether they have halls, also giving the size and valuation. He has succeeded so far in getting trace of 70 Granges which are thus provided with a home, although one or two have failed in giving the size or valuation, both of which are important items. The cheapest ones reported are \$250, two being so rated. To balance these are two worth \$2000 each, the most expensive being at Coldwater, \$2100. There are 26 Granges which report halls worth from \$1000 up to \$1800. We would like to know how many of our California Granges have permanent homes. When a man owns property he is a more useful citizen than the renter or boarder who can leave any day. Such men have little interest in the prosperity of their city or State. If a Grange builds a home, it shows the farmers in that vicinity that it intends to stay; and if it builds a nice one, the Order will soon rank in that community with the owners of nice homes. Let our Grange Secretaries send in their reports.

No Occasion to Feel Sad.

National Secretary Trimble has the following to say in the Grange Bulletin:

The Secretary frequently receives newspapers with marked articles in them, the substance of said articles being that the "Grange is dead," or "dying," or "in a moribund condition." It is very sad (?) to think that these editorial and reportorial truth-telling gentlemen should have their righteous souls vexed over the lamentable condition of the Order as pictured by their able and truthful (slow) pens, but, so far as I know, no officer of the National Grange groans over our present status, or loses a minute's sleep. In fact, and between ourselves, Brigham, Blanton, Woodman and Rhone, from their letters to this office, are evidently in good spirits and exultant at the present condition of our Order and the grand outlook in the future. When we look at matters just as they are, Mr. Editor, we cannot blame them for being jolly; on the contrary, they show themselves to be men of sound judgment and keen discernment.

Let me give you a few facts that ought to justify the officers and members of the Order in not joining "in a weeping exercise" with these outside editors and reporters. On March 4th this office equipped two new Granges. On March 5th, eight new Granges. I write this at 10 A. M., and the morning mail brought three new Granges, and two more mails to hear from to-day.

To Deputy Lecturers.

There having been few, if any, changes recommended by the Masters of different counties in the appointment of Deputies, the old Deputies will, of course, hold over, and it is hoped that all will be present at the meeting on Thursday next.

It is probable there will be a change in the composition of the Interstate Commerce Commission. While there is more wealth in the older-settled East than in the new West, yet the mileage of roads built to connect our thriving cities demands constant supervision. The majority of the Commission, and therefore the balance of power, is held by the West. If Walker resigns, as it is said he intends, the East will have no representation. It is asserted that the candidates are Western men, but it is not probable that the entire Commission will be allowed to become local rather than national. The probabilities all favor the appointment of an Eastern man.

NORTHERN men claim more activity than those who bask in the warm sun of our Southern States. Southern farmers refused to use bags for their cotton when the manufacturers organized a trust. Their pluck broke the trust. Let not Northern farmers boast of their activity until they have proven it by breaking the Binding-Twine Trust.

GOOD FOR HOLLISTER.—It is refreshing to learn that the newly reorganized Grange at Hollister has 16 applicants to enter the harvest-field. This is a good start. Some of our older Granges must look out, or Hollister will run ahead of them.

TO SECRETARIES.—Try and send us a list of new subscribers. Such encouragement would be highly appreciated by the publishers of your Grange organ. We are doing the best work possible to give every subscriber more than double value for his subscription money. Also, to double up the Grange roll of membership on this coast. Ask in your Grange how many already take this paper. Give us your prompt help, brothers and sisters. Don't wait for some one else to move.

Give us a State Board of Poultryculture.

MESSRS. EDITORS:—Seeing no reply to the question as to the justice of all the industries of our State being taxed to help the wine industry, I am left to infer no good reason can be given—no apology made; for truth and justice court investigation, while injustice takes refuge in silence.

This principle of State aid may be very wise, only let us have fair play. Come, brother farmers, wake up; don't be bashful. It seems to be a case of "Ask and ye shall receive"—if you have votes enough!

I see in a late State paper a suggestion from a woman that we ask an appropriation for poultry-raising. I indorse that idea with all my heart, as that industry affords no small portion of the incomes of thousands of poor families, widows and forlorn single women, the very classes that need State aid. Indirectly, too, the whole people would reap benefits.

I have not yet thought out the details of the legislation we need; but say the State furnish a trio of fine fowls to each newly married couple who have a plot of ground. Also, to every farmer's wife, poultry books and papers free; a paid hen-doctor (is that the right word?), to investigate the many ills that fowls are heir to, answer all questions and dispense free drugs, also pay for all birds found unfit for market—this would tend to preserve the health of the public. If these measures should greatly cheapen eggs and chickens, would it not be a most wise and well-directed "effort for the promotion of temperance?"—for we are told the want of good, wholesome food drives men to drink.

Doubtless, too, an apostle of poultry could do much good—travel to purchase the finest fowls for our markets; talk of the superior quality of our products; advertise the millions of unoccupied acres of land still to be had in this delightful clime. What though they be covered with brush and stones, every foot would be fine parade ground for hens. What a boom an enthusiastic talker could create, that doubtless would bring immigration flocking to our shores to engage in the delightful occupation of chicken-raising. So could we soon drive out all foreign eggs from our markets.

Go to, now, sister Grangers and farmers' wives, let us search out wise men to formulate our poultry appropriation bill; be sure they understand law so well that no leaving out one "aforesaid" or other legal term shall render it unconstitutional. Let us educate and agitate during the next two years and be prepared to come before the Legislature to win our poultry appropriation.

MRS. J. M. K.

San Jose Grange.

The Subject of Co-operation Again Discussed by the Members.

The meeting of the San Jose Grange March 30th was well attended, O. F. Alley presiding, H. A. Brainard, Secretary.

A letter and circular from the Vermont State Maple Sugar Exchange was read, showing how that special product from Vermont was protected from adulteration and introduced direct from the producer through the Exchange to the retailer or consumer. Consumers can get it entirely direct by sending a club or Grange order.

The Secretary said the circular might be taken as a text and a lesson to the fruit-growers developed from it.

Capt. F. Dunn elaborated this idea considerably. He said he knew of one man who had been engaged in the fruit business for about six years, and he began by making a good article, packing it neatly, and sending it to market direct and not through the medium of county buyers, city dealers, Eastern commission merchants, Eastern jobber, Eastern wholesaler and Eastern retailer before it reached the consumer. This grower had never been obliged to keep over more than a hundred pounds, and his trade had so increased that for the past two years he has been obliged to purchase of his neighbors to fill his orders.

A Fruit Exchange.

Captain Dunn thought there ought to be a fruit exchange in every fruit-producing region. The Maple Sugar Exchange guarantees the purity of their goods, and if any producer sends them a suspicious article it is at once sampled to the State Chemist for analysis, followed by prompt punishment of the offender.

Mrs. Knowles of Santa Clara spoke of the difficulty of the small dealers in towns like Santa Clara getting a good supply of fresh fruit, especially berries. There are hundreds of acres grown near there, but they are contracted early in the season, and every box goes to the city dealer. He sells them at very high prices while fresh to the rich, and the poorer people can only find

money to buy the poorer, older stock. Mrs. Knowles said her husband was a grocer, and she had learned some of these difficulties by experience. She said she felt very much in favor of co-operation, for then the working people could club together by themselves or through a dealer who did not want too high a rate of profit for himself and get their fruits and berries and other things, and not be obliged to take up with refuse or stale goods.

There was a desire manifested to send on a Grange order for maple sugar as a practical test of co-operation. The Secretary will take the names.

What Is It?

S. P. Sanders presented to the notice of the Grange a small peach tree which had a woody excrescence growing around the stem just at the surface of the ground. It had not affected the growth of the tree materially thus far, but seemed to retard the development of roots. The bunch was as large as a small fist and completely encircled the stem, which was of one year's growth. He desired information from any one who knew. The Secretary said it seemed very much like the black knot which troubles the cherry and plum trees in the East. He had never seen it on the peach or near the branches like this. It generally affected the root instead. The Secretary would be glad to hear from any one who knows about this.

D. Coates was down for a set speech, but was not fully prepared and said he would speak a little on co-operation, and would come directly to the point, so that no one might forget the text, as he had known people to do when a minister preached all around the subject instead of straight at it. He complimented one member of the Grange who had found a wife to co-operate with him in the joys and labors of life, and gently hinted that the present Secretary and a former one might profitably follow the example. He illustrated co-operation by means of a story which had so many wings to it that it flew away and was lost.—*Mercury.*

Trades for American Boys.

MESSRS. EDITORS:—At the regular meeting of Stockton Grange, No. 70, P. of H., held March 30, the following preamble and resolutions were unanimously adopted:

Your committee to whom was referred the matter in relation to certain organizations claiming the right to say how many young men shall be permitted to learn trades, beg leave to report as follows:

WHEREAS, It is a right inherent to every American citizen, and to their sons and daughters, to learn a trade, or to be apprenticed for the purpose of acquiring the necessary knowledge to enable them to procure a livelihood for themselves and families; and

Whereas, Certain men, banded together under the name of trades unions, arrogate to themselves the right to say who shall or who shall not learn trades, thereby keeping numbers of our young men in idleness, preventing them from getting employment, throwing many of them into vicious society, and rendering them eventually fit candidates for the State prison; therefore, be it

Resolved, That we hereby pledge ourselves to co-operate and assist, as far as in our power, all persons or organizations whose object is to secure to our youth the right guaranteed to them by the Declaration of Independence and to which they are born, as citizens of the United States.

Resolved, That these resolutions be spread in full on our minutes and a copy be sent to the Rural Press and Patron for publication.

Signed, THOS. E. KETCHUM, A. M. D. MCIN TOSH, J. B. HARELSON, Committee.

Progress.

MESSRS. EDITORS:—From March 1st to March 12th (both inclusive) the following new Granges were organized: Colorado, 3; Illinois, 2; New York, 1; Nebraska, 4; Oregon, 7; Pennsylvania, 6; Rhode Island, 1—24. For the same period in 1888 there were organized 16 new Granges. That is progress. Faithfully yours,

JOHN TRIMBLE, Sec. N. G.

Grange Election.

PLUMAS, No. 245.—O. McElroy, M.; R. G. Hamlin, O.; A. B. Huntley, L.; L. A. Lawton, S.; Mrs. C. Darbyshire, A. S.; Alen Trimble, C.; R. A. Heriot, T.; Jane Trimble, Sec.; Mrs. A. Sperry, G. K.; Mrs. A. Lawton, F.; Mrs. J. Escocoe, L. A. S.

HOPING FOR BETTER THINGS.—Alhambra Grange, No. 230, Martinez, reports that the prevalence of diseases limited their attendance last quarter. Unusually warm weather and a propitious outlook for crops will probably have a beneficial influence upon future Grange growth.

Tulare Talks.

MESSRS. EDITORS:—Inasmuch as we did not enlarge upon our late pleasant meeting with Lucerne Grange, we will try now to say something in regard to our own meeting of the 27th. From the Press, we learned that as Bro. Davis, State Overseer, journeyed homeward, he would meet with us in Tulare. As his arrival would not strike our regular day of meeting, Master Moore called a meeting for Wednesday, March 27th, when a goodly number of our brothers and sisters met him in our hall. We were sorry not to find him stronger after his rest from labor; that time and care may yet accomplish this is our most earnest hope. We did find in him a most ardent Patron, an earnest advocate of all that was grand and noble. His words to us were beautiful, and brought us into a channel of talk rather new in our Order, but which, I am sure, left us all with a feeling of love for the brother who gave us such a glimpse of his inner nature, a nature with which to have communed must always leave us with a sense of having received a great benefit.

Nearly all the brothers gave us some good words, and among them I must mention Bro. Fowler (or "Uncle Sam," as we familiarly call him at home). We think ere long he will not be alone famous for being the tallest Granger on record, but for framing some of the happiest thoughts we have had the good fortune to hear.

A Senator Explains.

Bro. John Roath, who had but just returned from senatorial duties, being present, was asked to tell us somewhat of his stay at the Capitol. We wondered as he told us of the utter disregard shown there for the wishes of the people; of the determination with which the tools of monopoly went to work to kill the Insurance bill, the Australian Ballot bill, and any other measure which might specially interest the people; we indeed wondered how our insulted farmers and all working, taxpaying people could any longer be party politicians, and why they do not all knock at the door of our Order, and give us the strength we need, so that as a grand body of political economists we can demand the recognition we deserve; that agriculture shall be strengthened, rather than drained of its strength; that instead of troubling our minds over the protection we should have against other countries, we should be demanding protection for our homes against the bandits in our own country.

When the brother had finished, we think all felt that though he had not been able to accomplish much, he had done what he could; and it is always a pleasure to honor the man who has so far honored himself as to be true to himself and his people.

A few more short talks followed, and all was interspersed with song. So, with farewells to Bro. Davis, ended another day, which our Grange will not soon forget, another day which should bring us nearer accomplishing some certain point; a very polar star, one brother said, our objective point should be, and never be allowed to get out of sight.

Of this particular brother we are sure more will be heard hereafter. More than a year has he been a brother, but a quiet one; indeed, not often a visible one; but on this day he seemed like a veritable war-horse, smelling the smoke of battle from afar, and as ready for the fray. We think it probable that the smoke that roused him at this time came up from Sacramento. May it choke the nostrils of many more to good purpose.

Tulare, March 31.

S. A. M.

The Grange and Binding Twine.

To the Farmers of the United States:—We are trying to ascertain the reason for the probable advance in the price of binder twine, and if not the result of legitimate causes, we shall urge vigorous measures in defense of farmers' interests. "The Lord helps those who help themselves." We can secure our wheat without the use of twine, and if we find there is a combination formed to plunder us, we should

Refuse to be Plundered.

We should first, however, be sure that such is the fact. There may be a scarcity of raw material, or it may be cornered by speculators, who force manufacturers to pay largely increased prices for such material, thus necessitating an increase in the price of the manufactured article. If it is ascertained to be the result of a combination, either among holders of raw material or manufacturers, we will promptly publish the facts.

In the meantime farmers should not be in a hurry to order self-binders. We cannot afford to bind 75 cent wheat with 20-cent twine. The formation of trusts can be made unprofitable if the people organize

and co-operate for self-protection. Without such organization, trusts and combines will fatten and grow strong on the helplessness and ever-increasing poverty of those who refuse to help each other. "Secure for wife and home a fair share of what the harvest yields."

The Executive Committee of the Ohio State Grange will endeavor to secure twine for their members at the lowest price at which it can be obtained from mills not in the combine, and will be pleased to assist our brothers in other States if it is possible to do so. Awaiting further developments, I remain yours fraternally,

J. H. BRIGHAM,

Master National Grange, P. of H.

Delta, Ohio, March 23.

[We believe it is only in the foothill regions and rolling coast lands that any considerable amount of grain is now gathered by machines requiring binding twine. In Oregon and other Pacific States and Territories, however, it is quite different, and the cost of binding twine is a matter of importance.

So long as the price of binding twine is 15 to 18 cents per pound, we do not see how farmers can lose much, in any event, by waiting awhile at least before purchasing.

The manufacturers of binding twine in this State have not, so far, placed their prices so high as Eastern dealers are reported to have done.

The above advice of Master Brigham is timely, and Patrons and farmers on this coast will naturally counsel together for their own interests before encouraging any imposition in the price of any such necessary articles in their line.—Eds.]

Give Them an Invitation.

It is expected that nearly all the leading Granges speakers in the State will be in attendance at the deputy meeting next Thursday. Now, when we have such a congregation of wise spokesmen at the bay, is a good time to call them to service of different Granges in the central part of the State. We should like to have the pleasure of announcing that on Saturday, April 13th, or on different days of the following week, that all our Past Masters, Brother Overhiser and every other officer of the State Grange (except the Secretary) have been specially called upon to assist a dozen or more different Granges in having a rousing good meeting, to listen to reports of the deputy meeting and suggestions for the Good of the Order.

Further, should there be a single Grange in the State that has no representative to this deputy meeting, we hope they will invite some officer or speaker who does attend to come and speak to them in the near future, giving the speaker they invite time to reply, so that thorough and timely notice shall be given to the members of such meeting.

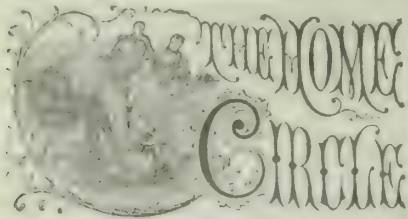
We are confident that any Grange which does not succeed in securing a speaker can be well accommodated by addressing the Secretary of the State Grange and asking him to secure some voluntary speaker in due season.

We want to hear of extra good meetings held during April and May in every Grange, and especially new Granges and those not lately heard from through the columns of the Press.

Watsonville Work.

Bro. Logan writes: I visited Watsonville Grange last Saturday, and am pleased to state that all appearances go to prove that it is on the high tide of progress, under the leadership of Sister E. Z. Roache. Sixteen applications for membership were considered, and will receive the first and second degrees at next meeting, Saturday, April 6th. A number of old members, who, years ago, had become weary in awaiting the harvest, and, for the time being, lost their grip, dropping out of the ranks of the faithful, are returning to the fold. There is indeed encouragement that Watsonville Grange will soon take a front rank with the best Granges in the land. The Master and Lecturer of this Grange, assisted by a corps of true Patrons, are making a valiant fight for the cause of right and justice.

THE COMMITTEE appointed by the State Grange of Kansas to propose a plan for profitably conducting a co-operative fire insurance, after examining and comparing the Constitution and By-laws of many companies in New York, Maine, Pennsylvania and Missouri, decided upon adopting the regulations of the former. The expense of the policy will not exceed \$3.50 per \$1000 of risk.



Good-By, Sweet Day.

Good-by, sweet day, good-by!
I have so loved thee, but I cannot hold thee,
Departing like a dream, the shadows fold thee;
Slowly thy perfect beauty fades away;
Good-by, sweet day!

Good-by, sweet day, good-by!
Dear were thy golden hours of tranquil splendor,
Sadly thou yielddest to the evening tender,
Who wert so fair from thy first morning ray!
Good-by, sweet day!

Good-by, sweet day, good-by!
Thy glow and charm, thy smiles and tones and glances
Vanish at last, and solemn night advances,
Ah! couldst thou yet a little longer stay!
Good-by, sweet day!

Good-by, sweet day, good-by!
All thy rich gifts my grateful heart remembers,
The while I watch thy sunset's smoldering embers
Die in the west beneath the twilight gray.
Good-by, sweet day!

Patience With the Living.

Sweet friend, when thou and I are gone
Beyond earth's weary labor,
When small shall be our need of grace
From comrade or from neighbor;
Passed all the strife, the toil, the care,
And done with all the sighing,
What tender ruth shall we have gained,
Alas, by simply dying?

Then lips too chary of their praise
Will tell our merits over,
And eyes too swift our faults to see
Shall no defect discover.
Then hands that would not lift a stone
Where stones were thick to cumber
Our steep hill path, will scatter flowers
Above our pillowed slumber.

Sweet friend, perchance both thou and I,
Ere love is past forgiving,
Should take the earnest lesson home:
Be patient with the living.
To-day's repressed rebuke may save
Our blinding tears to-morrow;
Then patience, e'en when keenest edge
May whet a nameless sorrow!

'Tis easy to be gentle when
Death's silence shames our clamor;
And easy to discern the best
Through memory's mystic glamour;
But wise it were for thee and me,
Ere love is past forgiving,
To take the tender lesson home;
Be patient with the living.

—Christian Advocate.

One Day in Our Lives.

[Written for the Rural Press by MAUDE S. PRASLER.]

You see Joe had been away for the first time and was now at home on a vacation. He had been teaching five months, and the dependence on his own forces had improved him.

Of course we were all glad to see him; he was the only brother we had, and we were rather proud of the six feet one inch that it took to reach his mark on the kitchen wall. We each had a mark there to show our height, from wee baby Ruth to brother Joe, who towered full three inches above his father.

At first it was quite enough pleasure to be all together once more; and then came the desire to have others share our joy. Besides, we wanted to make things a little lively for Joe before he returned to his school. Trust him for getting the best out of life, but he couldn't help missing a great deal in the little country district where he was teaching school.

After discussing and rejecting several plans, we concluded to ask eight of his old chums among the boys to tea, and have the girls come in the evening. It seems reversing the order of things a little, but it was leap year, so it did not matter.

Cousin Nellie was visiting us, and as she agreed to help in any way she could, mamma gave her consent.

"Only I'm afraid you'll both be sick," she said, hesitatingly.

"Sick!" we exclaimed in a breath. "What in the world would make us sick? There won't be much to do."

The mater looked dubious, but papa cried: "Never mind the work, girls; if you have fun you must expect to pay for it."

Bless his heart! There was never a man who took more comfort in his children's happiness. He followed us out in the kitchen where we went to plan out our work.

"You can have anything you want to cook with, girls, but mind you don't let your mother make herself sick."

The mater had never been strong, and of late had been something of an invalid.

"The only trouble is," I said slowly, "that owing to the plans for next week, we will have

to have them here to-morrow night, and here it is two o'clock!"

"Mercy!" said Nell, jumping off the table where she had perched herself for our consultation. "Can't you possibly put it off a day or two?"

"No," I said, "for the next day is Sunday, and Monday night is the party; Tuesday is New Year, and —"

"Well," she interrupted briskly, "we must get to work at once then. Who will go and get me a 'start' of yeast from the baker's? Five cents worth will be enough. Mabel, you go; there's a dear. If we have Parker-house rolls, I must set the sponge to-night."

She disappeared after the potatoes for her yeast, and I helped papa on with his overcoat and gave him a list of the things I wanted for my baking.

By the time Nell came back with the materials for her yeast, I had stirred up a plain cake.

We had decided to bake it in thin sheets and then cut it into fancy shapes, which we would decorate prettily. I thought that would be a little change from the slices of cake all the other girls had had at their parties.

"What shall you give them to drink in the evening?" asked Nell.

"Hot chocolate, I think," I replied. "You watch those cakes, Nell, while I hunt up Joe and send him to ask the boys. There is no use sending formal notes."

After a little fun with Joe I got him started off, and went in to tell the mater that the yeast was rising and we were baking cake.

"Now, you just stay in here by the fire; there's a darling. We don't need any help, so you needn't worry," I said, as I kissed her and pushed her footstool where she could reach it.

Nell and I worked all afternoon baking cake. By supper-time we had enough, I thought, and we had had excellent success. I suppose because the kitchen was quiet, and we weren't bothered.

We had cut the thin sheets into squares, oblongs, stars, rounds and diamonds. There were sixty, and they were frosted with white, chocolate and pink frosting. We colored the pink with currant jelly.

"Well, we've made a good start," said Nell, as we stood surveying our cakes spread out in the pantry to dry. "Joe must kill and dress the chickens to-night while we are out inviting the girls. I want to see them all, anyway, and the party is gotten up on too short notice to send notes," she said.

Joe didn't look very well pleased at the instructions we left, but we were surprised to find he hadn't killed the chickens. He had gone to bed with a headache, after declaring he couldn't get the chickens, anyway; they had gone to roost in a high tree.

Nell stirred up the sponge for the Parker-house rolls, and we went to bed, with the alarm-clock set near our heads.

Breakfast was soon over, and I began to stir up a marble cake for the boys' supper. Joe was out in the yard trying to catch those chickens. He had called Mabel to come and help him, so there stood the breakfast-table, just as it was when we rose from that meal. Nell was up to her elbows in the flour, kneading the rolls, and the poor mater was feeling much worse.

"I mean these shall be good," said Nell, giving the dough a thump.

Just then Joe came in to say he guessed he would have to borrow Bert Jamieson's revolver and kill the chickens.

"The blamed things won't let us get within ten feet of them," he said with a little giggle. He seemed rather to enjoy the fun, and I knew it wouldn't pay to get mad and scold, though I did long to box his ears.

"Well, do hurry," I said; "it is 11 o'clock now, and the breakfast dishes haven't been touched. We'll just have a pick-up lunch today, Nell, so we'll save time to work."

"All right," she replied. "I'll attend to the cakes now while you sweep and arrange the bedroom. Isn't that the mater coming?"

Sure enough it was. The poor dear had grown tired of sitting doing nothing. It always did fret her to have to be idle while others were at work. We presently persuaded her to be good and go back in the parlor.

"You needn't tell me you don't need any help," she said as I laughingly led her away; "just look at that breakfast-table."

It did look disheartening, but by the time I had the bedroom swept, Joe brought in the chickens and Mabel started at the dishes.

I had put a great lot of light wood in the stove to heat water to scald those same chickens, entirely forgetting that I had a big marble cake in the oven.

When I came out in the kitchen, Nell said with a quizzical look:

"I have to bake this cake with the oven door open, and most of it is on the bottom of the oven."

One glance was enough. The thin batter had risen so rapidly from the heat that it was running all over the sides.

"There is nothing else to do; it won't do to touch it, and if I close the door it will burn," Nell and I both laughed. We both felt glad the poor mater wasn't there; she does hate to see things wasted.

"What has run out is good," said Mabel, who stood disheveled in hand, looking at the rapidly rising cake. "Joe, we will eat it."

At this we all laughed again. Joe had a great fondness for sweets, and many a time we had found our cakes broken at the edges, and had sometimes caught him tasting "to

try their merit," he always said in a comical way. He always came in for the scrapings, too, and we knew he could be depended on in that line.

We had to rush things from that on, and worked hard. When the chickens were dressed, I started to make another cake. Nell had chopped almonds to stir into boiled frosting, and I soon had four layers baking in the oven.

Just then, as fate would have it, the mater got restless again, and came out in the kitchen.

"Girls, do you know what time it is? You are undertaking too much. If I were you, I'd make one plain cake and set them down to baker's bread. It seems as if I'd go wild sitting still when you need so much help."

"The best way you can help us, mamma dear, is to go right back into the other room. We will get along all right," said I, desperation in my tones.

Nell must have understood, for she took her into the dining-room to see how nice the marble cake looked.

"Shut the door and lock it," I said to Mabel in an awful whisper. She turned the key and I opened the oven door. A cloud of smoke poured out. I had smelled the cakes burning, but knew it would be the last straw if mamma should see them.

Mabel snickered, and I looked so wrathful at her that she redoubled her energies in cleaning the dining-room.

"What in the world!" exclaimed Nell, as she came in the side door.

"I've been baking some cake for Joe," I said, grimly, and then I sat down and laughed till I cried.

Just as I had quieted myself by a strong effort, there came a great crash. What could it be? Above the din we heard Joe's hearty laugh, and rushing to the dining room door found that in blacking the stove he had used so much vigor he had brought down pipe and all on his devoted head. Such a day as this was!

There was little fire in the stove, only some chips to warm the iron for blacking. No damage was done, and Joe consoled Mabel for the muss by helping her clean it up.

By this time Nell was watching the clock, and urged me to let her finish this last cake while I arranged the parlors.

The mater came out and sat by the fire and I told them to try to think of something new in the way of amusement for the company in the evening.

I grew quite cool and calm working alone in the parlors. I always did like to put the finishing touches to anything. Mabel and Joe brought in ivy and evergreen for the pictures and vases. I coax them to make a big wreath for each of the windows. Then I went out to mamma and Nell, who said they had been talking of having a conversation for part of the evening's amusement, and that I must dress and go downtown to buy two favors.

"One for the best lady talker, or, to speak more properly, the most brilliant lady conversationalist, and one for the most attentive gentleman listener," explained Nell. "Now do hurry, for it's getting late. I'll begin frying the Saratoga potatoes, so as not to be rushed."

I did hurry, you may be sure, and when I got home was much relieved to find Mabel had set the table. Everything was progressing finely, and I hurried to roll the chicken in flour and get it on to fry.

It took but a few moments to put on the jelly, pickles and fruit I had ready in the pantry. While I was arranging the cake-basket, the door-bell rang. Joe was in the parlor waiting to receive the boys. It was his company, so he could entertain them.

I called to Nell to put the rolls in the oven. They were very nice and light. She had a great dish of Saratoga potatoes fried—none too many, either, for the quantity one can eat is only limited by the time he has.

Papa came in to see how we were getting along. Mamma had been obliged to go to bed, but he was to sit down with the boys, and I was to wait on them.

He looked disapprovingly at our fire, and put in some fine wood. I wasn't watching him at the time, so the first warning I had of the rousing fire he had made was a smell of something burning. I rushed to my chicken and pulled it off the fire. Just then Nell dropped some potatoes into the lard, and it was at such a heat that it boiled all over and burst into flame on the stove.

She caught the stewpan up off the stove and held it till it cooled, although papa called out "Drop it!"

"Oh dear!" she said, as she set it down, "look at the floor!" and there was a great grease spot.

"Look at your dress," I cried. "That'll never come out."

The hot lard had run all down the front of it, and as her apron was not long, she got a good dose of it, as Joe would have said. The poor boy was bravely entertaining his friends in the parlor, no doubt wondering why on earth we didn't call them to supper.

"Never mind the floor and your dress," said papa. "I believe you are both burnt."

And so we were! Principally on the hands and arms, though little splatters of it had reached our faces. We both assured him it wasn't bad, although it had begun to pain fearfully.

"Nell!" I shrieked, "look at your rolls!"

They were burnt black on the top and bottom. The oven floor was red hot.

"What shall we do?" she said, looking horrified. "Oh! I know. We will just have

to wait for the other tinfoil to bake. What a mercy I made two pansful."

It was nearly six o'clock, and the time had been set for five.

"Well, we will just make the best of it," I said. "My, Nell, don't your hands burn?"

She grinned.

"This has been an awful day," I said, "but don't dare to own it, if you're half dead to-morrow. I shan't."

Papa was a host in himself when they sat down to the table. He kept them all laughing at the witty things he said. I mentally blessed him, when I found that Mabel had used the boiling water I had saved for my coffee to wash up the tins.

"He will keep them from noticing anything that goes wrong," I thought, when I found after they had left the table that I had forgotten to give them forks to eat their soft layer cake with.

Soon we heard them all singing to the vigorous accompaniment of one of the boys at the piano.

"There," I thought, "that much is off my hands. I wish these blisters were."

The pain was so bad I had to go to papa and get it banded with some wet soda on it. Nell had drawn the fire mostly out of hers by holding it over the fire, but it was a severe remedy.

We had now a couple of hours before the girls would come, so the worst was over. The evening passed off very pleasantly, and save for Joe's having too had a headache to enjoy himself, was a success.

"I never want you to have a party on such short notice again," said mamma the next day when we were talking it over.

"We were sadly rushed," I said, "but for my part I'm glad we had it," and I was.

Grass Valley.

Spending Money.

[Written for the Rural Press by FARMER'S WIFE.]

"Yes, and I guess you'd like a little to spend foolishly, too," was the reply a gentleman made recently to a lady's assertion that her ideal life was a farm unencumbered, plenty to eat, wear, and enjoy life, and a little set aside every year as a fund to draw upon in case of an emergency.

Right here may be considered when money is foolishly spent. Surely not in buying good books and papers, good wholesome articles of food and warm clothing; in buying a month's pleasure after the rush of work is over; in buying tickets to a course of lectures or a musical entertainment or in traveling. In short, money is never spent foolishly when its effect is to elevate the mental, moral or physical character of those spending it.

Money is a powerful agent for good or evil, and a superfluity of it often acts as adversely upon our moral natures as the extreme want of it does. There are those who are fitted by nature and training to care for their large possessions, and there are still others who could not or would not live decently no matter of what sums they might be possessed.

But why should we wish for so much of the world's worldliness? Some would like to go to Europe, perhaps (that seems to be the acme of a great many ambitions). Well, if you have seen most of the interesting places in your own State and country, go. It need not cost you even a small fortune.

But it does look like a foolish expenditure when people go to see Niagara and have never seen our own glorious Yosemite. When tourists go to Europe and have never seen either (which is not unusual), they show great lack of appreciation for the great natural beauties of their own country.

The writer once knew a wealthy young lady who had made the tour of Europe three or four times, and yet could not speak intelligently about anything she had seen there, and as for her own State and country, she seemed to know still less.

But these are exceptional cases, and one must not suppose it best, as some do, to settle down in one spot for a lifetime. We grow too narrow-minded and selfish. Let us take one trip a year at least, if we can afford it, and see all we can of Nature's beauties in that time. Our sympathies, our views of life, will deepen and widen until the narrow rut we have been in for so long will become distasteful to us.

If any one wishes to thoroughly appreciate money, let him or her go forth and earn it by hard manual labor, denying himself all luxuries and perhaps going a little cold and hungry in the meantime. Then if he doesn't appreciate money he never will, and if he cannot tell when it is spent foolishly he never will be able to do so.

Charity in its true sense never means to give five thousand out of a possible million, never knowing who receives or what benefits it bestows. The truest charity comes from the (comparatively speaking) poor, giving that of which they have little, willingly and with loving thoughts, simply because they know just how hard it is to be poor. If we haven't any money to spare, let us go without one article of food and drink—say cake, coffee or tea—for one year, their equivalent in money going to some one in need of life's necessities.

Money is spent foolishly upon all sorts of tramps who beg—human parasites living upon and by the labors of others. Money so spent is not only foolishly but criminally spent—the re-

ipients in time going to fill our jails, hospitals and asylums.

We could talk and write of the uses and abuses of money all day, but we cannot tell how much misery and lack of joy it brings in comparison with the pleasures. Yet the less of it—above the necessary—we have, the nearer the kingdom we seem to get, and I never feel the difference so much as in changing from city to country life—my ideal of an earthly heaven.

Pure air is God's gift, and to get it perfectly pure and unadulterated, you will have to go into the country and buy a home. One hundred and sixty acres will be enough (not ten or twenty as the real estate agents would have you believe, for we don't wish to live like Obinamen), and there rear a home, not a palace. Let it be plain and neat and let the family all work together to make it a home. Let us have fruit trees, shrubs and flowers, vegetables, poultry and a limited number of live-stock well cared for; and in the house, wife and children happy and cheerful, a few pictures on the walls, a quantity of good books and papers, a small bank account and a large fund of charity. What more could one wish? Let the fortune-getting alone. Go hand in hand, husbands and wives, and let the divorce courts alone. Work together, suffer together, and be strong together. Do your duty to all mankind. If you do your duty toward your own family, you will probably learn that higher duty the sum and essence of which is charity.

French Camp, Cal.

Putting Geese to Work.

A gentleman who has just returned from the central part of Alabama tells the following wonderful story, which gives a new departure for farmers in the South, and which, if it is found to be successful, will be as novel as it will be profitable and labor-saving. He says: "When I was in Alabama, between Porter's Gap and Millerville, I came to a country place where a man was driving ten or twelve geese from a branch to a cotton patch.

"What have you on the necks of those geese?" I said.

"Those are gourds full of water. I drive the geese into that cotton patch and keep them there all day weeding out the cotton. There is no water in the cotton patch, and I have to give them water in this way to keep them there. Those geese will weed out more cotton in a day than two people would. They will eat the grass and weeds, but they won't touch the cotton."

"But how do they get the water out of the gourds under their necks?"

"They drink out of each other's gourd. Each gourd has an opening in the side, so that another goose can put his bill into the gourd and drink. If you will stay here long enough, you will see it for yourself."

"I waited half a day to see that performance, and finally I saw it. The geese did just as the man said they would. When a goose got thirsty, he walked up to his neighbor and coolly drank out of the gourd on his neck."

"When asked if he had yet made a crop with the help of the geese, he replied that he made a small crop last year, but only had a limited number of geese, as he was only experimenting. This year he has over a hundred geese in harness, and they have succeeded in keeping his crop cleaned out so far. He has 100 acres under cultivation, and says that he will make the best crop he has ever made."

"When asked how he came to think of using the geese as farm hands, he replied that two years ago he had a small patch of cotton near his house. In his patch the geese raised about his yard were allowed to run. He noticed that the cotton had little or no grass and no weeds at all, and began to watch the geese. He found that they literally ate every weed and every blade of grass, but they did not touch the cotton. Finding how valuable they were for this purpose, he resolved to try them on a larger scale, and is delighted with his experiment. His neighbors had paid close attention to the matter, and next year they will each of them start a large number of geese in harness in their cotton crops. If the farmer's experiment is as successful as he thinks it will be, it is only a question of a few years until the whole cotton crop of Alabama will be weeded out by the ordinary farm goose."—*St. Louis Globe-Democrat*.

PROUD OF HIS SISTER.—The Chicago Tribune tells of a young man who was regarded as a phenomenon because he took his sister to all the best entertainments, actually devoting himself to her during the lecture and concert season. Being praised for his unusual attention to his sister, the young man promptly and proudly replied: "No, there's nothing wonderful or extraordinary about it. She is the only woman I know in whom I have thorough confidence. She is always the same, always pleased and affectionate; and to tell the truth, I'm afraid she'll go and marry some of these imitation men around here and be unhappy all her life. She has nobody else to look to, and I'll take care she does not have to look to anybody else. I suppose some day a genuine man will come along. If he's a genuine man, I won't object. Until he does come, she is good enough for me; and if ever I find as good a girl, I'll marry her." The example is most commendable. A young man would do well to seek his sister's society until he finds another lady as good as his sister.—*Exchange*.

YOUNG FOLKS' COLUMN.

A Kitten's Mourners

The dear little Maltese kitten was dead.

Jack and Elsie had buried it
In a cigar-box, softly lined,
And the place of the little grave was signed
With a stone at the foot and a stone at the head
In memory of Kit.

Elsie and Jack, the sister and brother,
Shed many tears for their dear, dead pet—
The grief of a child is an April shower.
But its smile comes forth like an April flower—
They sat with their arms around each other
Till the sun was set.

They saw a gray shape in the twilight air
Rise with the beat of a feathered wing—
An owl it was, but they never shall know—
"Oh! Elsie, look, see our Kitty go
To heaven; and the angels will take care
Of the dear little thing!"

Hand in hand to the house they came,
Serious yet, but not wholly sad;
They whispered together, the wise little elves:
"Some day we shall go to heaven, ourselves;
And if Kitty comes when we call her name,
Won't we be glad?"

—E. Cavazza, in *Portland Transcript*.

The Lover's Leap.

An Indian Legend.

[Written for the Rural Press by LEITE.]

The stage-road from Cloverdale to Ukiah is a distance of perhaps 30 miles along the Russian river. The scenery is wild, beautiful and picturesque. In summer the river is but a silvery mountain stream, flowing over a pebbly bed, making here and there deep, cool pools in which hide the speckled trout. Many of these pools are delightfully sequestered, and are shaded by mammoth grapevines which completely envelop the tall trees which grow along the banks. It is indeed a tempting retreat to a disciple of Izaak Walton; but to the more peaceful-minded traveler these wild glimpses of wood and stream, of mountain and shaded glen so far away from the busy scenes of toil and strife, is peculiarly refreshing and complete in itself.

As you journey along, swinging alternately into sunlight and shade for miles, the road suddenly makes an abrupt turn, and you are brought face to face with a dark, frowning tower of rock, rising almost perpendicularly to the height of two or three hundred feet. The sudden appearance of this giant boulder is weird and appalling to the beholder. It stands like some grim sentinel, silent and lone in its grandeur. One involuntarily shudders as if standing before some monument of dark deeds of the past, and this is the story told me by an old Indian woman of the Senel tribe, a remnant of which still inhabits the Rancheria near by.

In the good old days before the white man had entered and desecrated the land with his fire-water and other elements of higher civilization, there dwelt here in the old Rancheria the Senels, a large and powerful tribe. Many days' journey to the north dwelt the Ukiaks—their bitter enemies. Among the Senels was the beautiful maiden Chicha, the fairest maiden of all the tribe. She had been betrothed in marriage to Sumoot, the chief's son; and he had crowned her queen of his heart by placing upon her raven tresses the wreath of scarlet barbaries, as was the custom in those days for an accepted lover to do. Soon after, Sumoot departed from the Rancheria to hunt the wild deer for the bridal feast. Chicha was happy in her love; and in his absence busied herself weaving the large basket of plant willow boughs, which would be used in the happy future for domestic purposes, just as the maiden of the Caucasian race used to spin the cloth and weave the cloth for her bridal linen.

Many a hopeful, happy day did the loving Chicha spend in this sweet labor for the happy future. But alas! man is fickle sometimes, even among the untutored children of nature. But surely some wicked spirit of the air enticed young Sumoot to the boundaries of the enemy, in search of the antlered deer. For there he saw the fair Titila, and became so enamored of her charms that he forgot the patient, loving Chicha anxiously awaiting his return.

And this faithless lover took a bride from the tribe of his enemies by night, and they started for the wigwam of his father. They must journey for many days, and before they arrived the tidings of her lover's faithlessness was brought to Chicha as she sat before her mother's wigwam weaving the slender willow wands. Her tenderness was turned to gill, and the strength of her love was turned to the strength of revenge. At night the deserted damsel climbed to the topmost pinnacle of the rock tower to watch for the arrival of the two false ones who had turned her young life's sweet dream to a bitterness worse than death. All night and all day she watched without food or drink, with an Indian's persistence in revenge, never taking her eyes from the narrow trail beneath. As the sun was sinking on the evening of the second day, she saw them coming around the river bend. Her eyes kindled with a baleful fire, but she crouched low upon a ledge to hide herself from view until they should be directly beneath her. They came, and little dreaming of the Nemesis above them, made their camp-

fire in the dry bed of the stream just below the ledge on which she crouched. Chicha waited with fatal patience until they had eaten and laid themselves to rest on a bed of dry leaves. Then, grasping a loose stone from the craggy ledge, and taking it in her arms, she leaped from the great rock, flinging herself upon the guilty sleepers below, crushing their bodies with the stone and her own by the fall. Thus ended the bridal tour of Sumoot and Titila and brief agony of Chicha's despair and vengeance. To this day the rock tower is called Lover's Leap, and the red sandstone formation at its base, the Indian Sybil says, was white before stained with human blood. So also the crimson petals of a beautiful flower which grows from the rocky crevices, before this awful crime of vengeance was white as the snows of Shasta.

Los Angeles, Cal.

GOOD HEALTH.

PARALYSIS BECOMING MORE AND MORE COMMON.—There is a disease which is certainly becoming more common every day, writes Dr. W. A. Hammond to the *Pittsburg Dispatch*, and from which recovery is so rare that many physicians most capable of judging doubt if it ever takes place, and that is general paralysis, or general paresis, as it is sometimes called. While probably not resulting from any particular occupation, as such, it may be caused by any employment which is above the mental capacity of the individual, or which involves great anxiety or in which there are reverses or disappointment. It is especially prevalent among those who are engaged in financial speculations or in some business requiring inventive powers or a degree of knowledge which the person does not possess. It is a most terrible outcome of the struggle for wealth and position in which the whole civilized world seems to be now engaged. Those who are satisfied with their lot in life or who, if not contented, have no hope of improving their condition, and hence make no effort in that direction, are never affected with this disease. I doubt if a single case occurred among the slaves of the South, while since their freedom it has made its appearance among them and their descendants. There are both mental and physical symptoms in general paralysis, and while the approach of the disease is generally insidious, its presence is indicated by certain phenomena which are unmistakable in their significance. Chief among these is what the French call *delire de grandeur*, the delirium of grandeur. The patient, for instance, imagines that he is the richest or the most powerful, or the strongest or the handsomest man in all the world.

CLIMATE AND DISTRIBUTION OF CANCER.—In concluding a series of papers on the geographical distribution of cancerous diseases in the British Isles, A. H. Haviland says (*Lancet*, March 10, 1888): "I maintain that those who would give themselves the best chance of avoiding those local conditions which are coincident with a high death-rate from cancer should study well the distribution of this disease in England. There is abundant evidence there to show that cancer does not thrive in high, dry localities, where the soil is kept sweet by the absence of floods, and the nature of the rocks which either underlie it or form its principal constituents; and that it does thrive and become very fatal where floods prevail, where their emanations are sheltered and intensified, where vegetation is killed and decomposed, and where, after the floods have passed away, a rank herbage springs up, composed of sour grass and bitter plants, which scour and otherwise disease the horses, cattle and sheep that feed upon them. Much has to be done, much has been pointed out, and if the 22 high mortality and the 16 low mortality districts were well studied in connection with the various factors which we have seen to be coincident with high or low death-rates, I believe that much would be added, much would be corrected, and much revealed that we little think of now."

THE AXE CURE FOR COLDS.—"I can tell a cold the moment it gets a grip on me," said an old farmer of my acquaintance, "and I have cured them lots of times without spending a cent for medicine. The minute I feel it coming, I hunt up my axe and start for the woods. The toughest old stump I can come across will suit me best, and if I can manage to work my self in a sweat I know I'm as well as cured. A few minutes after, the thing begins to loosen on my lungs, and then I can cough it out in short order." Arm-exercise would, indeed, seem to act as the promptest specific in such cases, and dumb-bell practice misses its purpose more frequently only on account of the circumstance that muscular efforts with practical purpose can be kept up much longer than crank-work gymnastics. Swinging a heavy axe is really much harder work than Indian club exercise, but the visible results of the effort, the flying chips and widening splits, appear to act as a mental stimulus in preventing fatigue.—*American Rural Home*.

THE BEST MODE OF PREPARING BEEF TEA FOR THE SICK.—Take one pound of lean beef cut into small pieces. Put into a jar without a drop of water; cover tightly, and set in a pot of cold water. Heat gradually to a boil and continue this steadily for three or four hours, until the meat is like white rags and the juice all

drawn out. Season with salt to taste, and when cold, skim. The patient will often prefer this ice cold to hot.

COMPARATIVE FATALITY OF DRINKING ME.—In all the Prussian hospitals during the years 1878-79, there died from the ranks of the drinkers 19 per cent, while from the entire number of patients there was only a mortality of 10 per cent. Of those afflicted with pneumonia, 53 per cent of the drinkers died, while only 18 per cent of the other pneumonia patients died.

SUICIDES.—It is said that Saxony furnishes the largest percentage of suicides of any civilized State. The number last year was 1104, or one to about every 3000 of the population. In 1881 the total number was 1248.

A NEW REMEDY FOR MUMPS.—It is said that the Lewiston (Me.) druggists keep large quantities of tow for sale. It is in great demand as a remedy for mumps. It is worn around the neck of the patient.

TO AVOID CONSUMPTION.—Will Carleton attributes his escape from early death by consumption to daily and persistent inflation of the lungs with fresh air. He is now 42 years old.

NO ALCOHOLIC STIMULANTS.—The homeopathic hospital in Philadelphia was successful in restoring patients from typhoid fever last year without the use of alcoholic stimulants.

THE MORPHINE CRAZE is growing. A Portland, Me., manufacturer has made and sold 25,000 hypodermic needles since 1886.

DOMESTIC ECONOMY.

From Over Sea.

EDITORS PRESS.—The following recipes have come to me from the other side of the Atlantic, and having been tried successfully are sent for the benefit of other housekeepers to whom anything is acceptable which can add a little variety to the usual routine. I. H.

Milk Soup.

Cut in large slices four potatoes and one onion. Place them in a sauce-pan over the fire with a piece of butter the size of a walnut, and allow them to steam for a few minutes; add half a pint of boiling water and simmer till the potatoes are soft. Mash them through a colander; add one pint of milk and return to the fire. Season with pepper and salt and simmer, but do not boil. Serve with grated cheese. This quantity is sufficient for two or three persons.

De Crespigny Pudding.

Soak six ounces of bread-crumbs in half a pint of milk; heat almost to the boiling point and add the beaten yolks of four eggs. Flavor with lemon, but add no sugar. Butter a pudding-dish and cover the bottom with a thick layer of jam of any kind. Pour in the other ingredients and bake half an hour in a slow oven. Beat the whites of the eggs to a stiff froth and stir in six tablespoonfuls of sifted sugar. Pile it up on top of the pudding and return to the oven for a few minutes. To be eaten with cream.

Dunnikier Orange Pudding.

Take five ounces of butter, melt it in a pan, but do not let it oil. Add to it while warm five ounces of sugar and the beaten yolks of ten eggs. Mix well together and beat thoroughly. Cover two pie-plates with puff paste and spread over it a layer of orange marmalade. Pour over this the other ingredients, and bake about half an hour. Beat the whites of four eggs with six tablespoonfuls of sugar. Spread over the pudding and return to the oven till slightly colored.

VELVET CAKE.—Beat the yolks of six eggs until frothy. Add two cups of granulated sugar, and beat for 15 minutes. Add the well-beaten whites of three eggs, leaving the other three for the frosting. Stir into one cup of boiling water 2½ cups of flour, with one tablespoonful of baking powder mixed dry. Flavor with one tablespoonful of lemon extract. Bake in three layers, and put this icing between them. The whites of three eggs, well beaten, six dessertspoonfuls of pulverized sugar to each egg. Beat stiff, and flavor with lemon.

RICE CROQUETTES.—Boil the rice until quite soft and tender; while warm, measure; to every teaspoonful of boiled rice add an egg, well beaten, a tablespoonful of butter, pepper and salt to taste, and a half-teacup of any kind of cold fresh meat, ham or tongue, chopped fine. When cold, with floured hands make into croquettes, cover with beaten egg, roll in cracker dust, and fry in hot drippings until nicely browned.

CHICKEN POT PIE.—Wash and cut chicken, and boil for 15 minutes, then take out and put in a kettle with several slices of salt pork and two or three pints of water, one tablespoon of butter, a sprinkling of pepper, and add dumplings. Let cook about an hour.

WALNUT CAKE.—Three eggs, 1½ cups of sugar, one-half cup of water, two cups of flour mixed with two teaspoonfuls of baking powder. Beat eggs and sugar thoroughly five minutes, add water and flour alternately. Bake in two oblong tins in a quick oven.



A. T. DEWEY.

W. B. EWER.

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Pumps—C. H. Evans & Co.
Agricultural Machinery—Byron Jackson.
Mowers—P. P. Mast & Co.
Windmills—Pacific Manufacturing Co.
Live-Stock—Argonaut Stock Farm, Sacramento.
Thoroughbred Horses—Killip & Co.
Spray Pumps—Cal. Fire Apparatus Mfg. Co.
Bowens Academy, Berkeley.
Windmills—P. P. Mast & Co.
Singles—G. G. Wickson & Co.
Dictionary—G. & C. Merriam, Springfield, Mass.
Tanks—Wells, Russell & Co.
Real Estate—Ostrander & Sons, Merced.
Stock Yard—J. D. Horan.
Challenge Windmill & Feed Mill Co., Batavia, Ill.
Live-Stock—Killip & Co.
Jersey Cattle—H. S. Sargent, Stockton.
Clyde Stallion for Sale—G. L. Taylor.
Clay Watch Co., Olay, San Diego Co.
Smalley Cutters—Minard Harder, Cobleskill, N. Y.
Agricultural Implements—Bull & Grant Farm Imp't Co.

See Advertising Columns.

The Week.

The incident of the week which has made the world akin in grief and sympathy is the sad work of the storm at Samoa. In the harbor of Apia for months past there have been six warships—three American and three German—frowning at each other under strained international relations and none knowing when an act of war might be committed. Thus, with the eyes of the world upon them to mark the first sign of trouble between two great powers, they lay at anchor until on March 15th a terrific hurricane, for the occurrence of which the South Pacific is proverbial, broke over the harbor, and in a few hours, the six men-of-war

were driven upon the reefs and about 150 officers and men drowned.

The disaster has aroused the sympathies of the world, and in the face of the appalling loss of life on both sides, there is little doubt but that the representatives of the German and American peoples can arrange the small questions at issue between them.

In contrast to the fatal fury of the elements abroad is the quiet at home. It has been fine growing weather and all parts of California are hopeful and happy. With the fruit fast advancing, the live-stock wading in deep pastures, the wool and lamb crop splendid, and the grain-fields in good growth and color, there is every confidence in the fullness of producers' rewards.

Intellect and Emotion.

Man is a very peculiar being and stands alone in the great creation of God. There is a gulf between him and the rest of animated nature—a gulf without a link, a chasm that only God could stride.

Below man we find all the rudiments of his nature except the cap sheaf, the intellect. The same flesh, bone, senses, instincts and wants are all there. Man is based upon nature, allied to it, subject to all its laws, and has nothing above it till we come to the mind. There he steps out; he is alone. There is not even a rudiment of his great mind and its aptitudes in all that stands below him.

He thinks, speaks, imagines, speculates on the past, the future, on causes and consequences. If God or angels wanted to select a being on earth to be an agent of heaven, all the conditions would point to man as that agent. No other could be thought of for a moment.

Even the passions of man are modified by this mind to make them fit company as it were. He cooks his food. He forms a family compact for life. He loves his wife and children till death. He builds a home. He uses weapons and tools. He works to-day for tomorrow. He becomes a philosopher, a judge, orator, artist, law-maker, a king.

He may be said to have two lives, one emotional and the other intellectual, and he plays between the one and the other continually. The emotional is the basis of his nature, the bedrock of his happiness or misery; and with a thousand the sum of their happiness, while only the one will abandon them for the pleasures of the mind.

Occasionally we find a rapt genius who soars upward, and regardless of parents, wife or child, will revel only in art or science, deeming life well spent, a grand success, if he have carried fame or fortune in his favorite pursuit. But for the most part these things are pursued only as a means to an end; the end, the home where wife and children bring him all his reward when the toil is done.

To have become Pope, to have reached the pinnacle of fame, or wealth, or any other eminence, cannot be deemed or accepted as a happy and successful life, if it imply a single state.

On the contrary, the poorest and least cultured of all, have lived well, who were born of a loving mother, with loving brothers and sisters, left them only for a loving wife, raised a good family of affectionate children and died in their arms. This is emotional life. It may be humble or great, but when complete it is the crowning joy of this world. Is is the perfection of human life when attended by modest fortune and the charm of cultivation. Domestic felicity is the only picture that can begin to realize the kingdom of heaven.

John Knox of Scotland, somewhat of an ascetic, in conversation with one of the "Old Kirk," who was thus happily situated, said to him:

"You and your whole family lack the grace that saves, and unless you change your hearts, St. Peter will shut the door in your faces."

"Well, well," said the old man, "we will camp outside and have heaven there. Wherever we are we make heaven for ourselves."

When we count up all the items of our happiness, we shall find the emotions are concerned in at least nine-tenths of the whole sum. If this is true as to man, it is doubly true for woman. She is essentially emotional. Her life is made up of her loves; indifference is a distress. For her, love must be active, demonstrative, and ever present. It begins with the cradle, and it should follow her to the grave.

A loved child, sister, wife, mother, is the perfection of woman's life. To have been that is success; and not that, a dreary failure.

Accomplishments, high culture, ambition, fortune, fame, are well, but for the few only, and in their utmost perfection cannot compensate for the other. What a blank, when they attain nothing, and yet lose the pearl of great price.

This emotional nature needs practice, training and modulation. It should be the mother's care to see that it has all these from the earliest infancy. Cultivate the emotions in their proper channels. Teach your children to love one another. Impress upon them that they are near relatives, your children, brothers and sisters, allies and friends for life, and must on no account be hasty, or unreasonable, or unduly angry with each other. Train them to demonstrate their love for each other. Refer them to the fact that you love them all, and as they love you they must love each other. The kiss of peace and good-night, and the salute at morn will help them. Make the home a nest of love and helpfulness. Then in after-life all these things will be remembered to the end. They are not truly brothers and sisters who are not trained thus; and when we look around on society we fear that many have not been warmed in that nest.

We have a doubt if any education away from home can compensate for the loss of these advantages. We are not certain that even our boys do not lose more in mother's love and father's kind, homely instruction than they gain from the most erudite profession. Could not the college be near home so as to have both? Look at the world, and you will find more truly great men whose hearts were kept by their mothers than from the college or university. And for girls we deem the mother and the family indispensable.

We would not deprive our young women of all the knowledge and finish their natures admit of; but we insist that nature shall not be suppressed by art. You may refine and elevate, but you must leave the germ, you must cultivate the domestic affections, habits, and instincts, and the mother and the family is the only school where they can be nurtured and trained to a useful end. The mother's love is the great educator of the affections.

The Season's Rains.

Though showers are still falling in different parts of the State and considerable precipitation is still possible, it is interesting to review the records of the season's rainfall up to April 1st as compared with the average rainfall to the same date during previous years. The report of the U. S. Signal Service furnishes the following data:

Stations.	Av'ge for season to April 1.	Total for season to April 1.
Red Bluff, Cal.....	21.38	19.17
Chico.....	16.26	11.04
Willows.....	9.09	12.13
Orland.....	11.33	11.88
Davis.....	13.28	17.24
Colfax.....	36.47	27.00
Sacramento.....	17.26	15.97
Napa.....	19.23	18.72
Santa Rosa.....	19.51	19.51
San Francisco.....	20.71	20.70
Livermore.....	16.72	12.03
Lathrop.....	8.85	10.07
Folsom.....	10.17	18.84
Niles.....	14.63	13.27
Salinas.....	11.35	9.87
South Vallejo.....	11.15	14.26
San Jose.....	10.70	13.92
San Mateo.....	15.78	18.09
Santa Cruz.....	20.44	20.73
Menlo Park.....	11.30	14.23
Anaheim.....	9.07	14.76
Merced.....	8.58	6.83
Modesto.....	7.62	7.53
Fresno.....	7.85	6.53
Delano.....	4.50	5.50
Bakersfield.....	3.72	4.51
Gilroy.....	16.59	11.78
Tulare.....	5.28	6.50
Turlock.....	7.12	7.60
Los Angeles.....	14.74	18.74
Newhall.....	12.44	20.50
San Diego.....	8.30	10.63
Keeler.....	2.41	5.06
Yuma, A. T.....	2.24	4.15

These figures show that the rains, as a rule, have not been generous. At some points, especially in Southern California, the rainfall is above the average, while north of the center of the State the amount has been less than the average. A few good spring showers will, however, insure a fair output of various products.

PARLIAMENT has voted over one hundred million dollars to increase the British navy.

Freight Rates on Fruit.

The securing of lower freight rates on our green fruits, which really holds the key to the profitable extension of our orchard area, does not seem to be advancing very rapidly. As we have before stated, there is not discernible any disposition on the part of the managers of the Transcontinental Association to reduce the cost of overland carriage. The matter came before the State Board of Trade on Tuesday of this week, being brought up by a memorial adopted by the Santa Clara Board, which called for a material reduction in overland freight rates on green fruits, saying that by such a reduction the fruit interests of California would be best subserved.

In the discussion which followed, Capt. Weinstock of Sacramento was called upon, and is reported to have said that he had talked with the representatives of the railroads, and if their arguments were irrefutable he thought the State was now enjoying as low fruit rates as it can ever hope for. If the rates are the minimum, he expressed a fear that too much planting is being done. Under the present circumstances it is unadvisable, he said, to go on setting out green fruits at present rates of overland freight. California is supplying the maximum requirements of Chicago. By means of the public auction system he had in one day disposed of ten carloads of fruit. He did not, at present rates, see much possibility of beating this.

The Eastern fruit receivers are proclaiming against the Interstate Commerce Act as responsible for the present disposition of the railway managers, and some California producers are disposed to take the same view of the case. How much the present disposition of the railway managers is due to the requirements of that law, and how far they are using the present situation to bring the law into ill repute, we do not know. If the latter is the secret of their position, and they have often been credited with such efforts to break down laws which did not suit them, we do not believe they would hesitate to sacrifice a few California fruit crops to attain their ends.

The outlook is not particularly encouraging, it must be acknowledged. In this issue we have not alone our local railway magnates to deal with. They might be appealed to and shown that their interests plainly lie parallel with those of the growers. But the distant managers who control the mid-continent roads are harder to handle; they probably would not care a bean what became of the California fruit interest, if by its embarrassment they could score a point against the Interstate Commerce law.

Miss M. F. Austin.

The excellence and fame of Fresno raisins are due largely to a remarkable woman, who died in this city on Thursday of last week.

In the Rural Press of Oct. 12, 1878, appeared this note:

EDITORS PRESS:—I take pleasure in sending you a little sample box of the first raisins made in the California Central Colony, from vines only two years from the cuttings. They are Muscat of Alexandria.—M. F. AUSTIN, Fresno, Cal.

This was followed by editorial remarks that the raisins were of very good appearance and true flavor, neatly packed, and highly creditable to the locality whence they came, and to the enterprise of our correspondent and others in testing the capabilities of that region. The prediction was ventured that another year would show larger berries and raisins ranking with the best in the market, which is true today the world over.

For many years previous to 1878 Miss Austin had been prominent among the educators of San Francisco as a teacher in the Girls' High school and principal of the Clark Institute; but in that year she withdrew from school work and betook herself to the "Hedge Row" vineyard, whose increasing products, under her intelligent and wise management, soon won a standing both honorable and profitable.

Miss Austin, long before her death, became believer in the practice of cremation, and made provision in her will for having her own body thus disposed of. Accordingly the remains, attended by her former associates, Miss E. A. Cleveland and Mrs. J. B. Short, teachers of this city, and Miss L. H. Hatch of Fresno, were taken to the Rosedale crematory at Los Angeles, and there, on the 30th ult., reduced to ashes.

John Bright.

No Englishman of the present generation has carried with him to the grave such universal respect as the man whose name stands at the head of this article. From the Queen on her throne to the humblest of her subjects, the people of England have vied with each other in doing honor to the dead statesman. There has probably not been a political party during the fifty years of his active life which he has not at one time or another opposed, and sometimes with such vigor and success as to lead to its overthrow; and yet so exalted was his patriotism, and so pure the motives which prompted his opposition, that the acknowledged leader of each one of them contributed a wreath to adorn his bier and a eulogy to perpetuate his fame. Lord Salisbury, the present premier, and the embodiment of aristocratic English Toryism, against which the entire life of the great Commoner was in bitter antagonism, in his eulogy said: "He was the greatest master of English oratory in the present generation. He was inspired with pure patriotism from the beginning of his career to the close."

While he took an active part in every important measure that came before Parliament during his long political career, he was more especially identified with the repeal of the Corn laws, free trade and the extension of the suffrage. His position and arguments on each one of these questions he has lived to see triumphantly vindicated. The Corn laws were especially oppressive to the poor, who regarded him and his great colleague, Richard Cobden, as their champions, and their final repeal was made an occasion for universal rejoicing throughout England, "Cobden and Bright" being a conjunction of names embodying all that was politically hoped for by the millions of the disfranchised of Great Britain. It was the writer's privilege some time after the repeal of the Corn laws to be in the house of the great reformer at Cronkeyshaw, Rochdale, and he remembers well that occupying one entire side of the spacious library was a magnificent bookcase of English oak, embellished with carvings in relief of wheat, corn and other cereals, emblematic of the "staff of life," the gift of admiring friends in grateful remembrance of his exertions for the repeal of the obnoxious laws.

Whatever may be thought of free trade, as the policy best adapted to America, John Bright was convinced that it was the best thing for England 40 years ago, and, mainly through his exertions, laws were passed making it the settled policy for that country, and a long series of years of industrial prosperity seemed to verify the position he assumed on this question.

In regard to the extension of the franchise, if he was not so radical as some of his colleagues, he was probably wiser, his aim being to obtain, if not the best possible, at least the best he could get, and such a measure as would be best adapted to the condition of those it was intended to benefit. In this, also, he saw the fruition of his hopes and labors.

Being by birth, education and conviction, a member of the Society of Friends, his life was one long protest against war and bloodshed, and as he deemed it his duty on all suitable occasions to give emphatic expression to his convictions, it may well be imagined that he was often in hopeless conflict with the belligerent majority of his countrymen. This was particularly the case during the Crimean war between Russia on one side and Great Britain, Turkey, France and Italy on the other. His philippics, if the term in favor of peace be admissible, in the House of Commons, at this time, were among his grandest oratorical efforts, and though he knew they were entirely unavailing, and sometimes subjected him to ridicule, such was his fidelity to conviction that he was willing to brave it all rather than shirk his duty by cowardly silence. It was during one of these debates that Lord Palmerston flippantly alluded to him as "My honorable and reverend friend." He was promptly called to order by a friend of the sturdy Quaker, who, in the course of a scathing rebuke, told the noble lord that it ill became the representative of an insignificant pocket borough to insult the chosen representative of one of the largest industrial constituencies in England.

It seems an anomaly to American readers that a man so richly endowed and wielding such great influence should have been content for 45 years to sit in the lower house as an ordinary

Commoner, and that when the party representing his ideas came into power, Gladstone, his warm personal friend and political chief, should have to labor with him half through the night to take a cabinet position in his Government, and his character can only be truly appreciated as we concede to him a lofty patriotism and a sturdy independence, which left him free to criticize or support his friends as he should be convinced their policy was for the good or otherwise of the country.

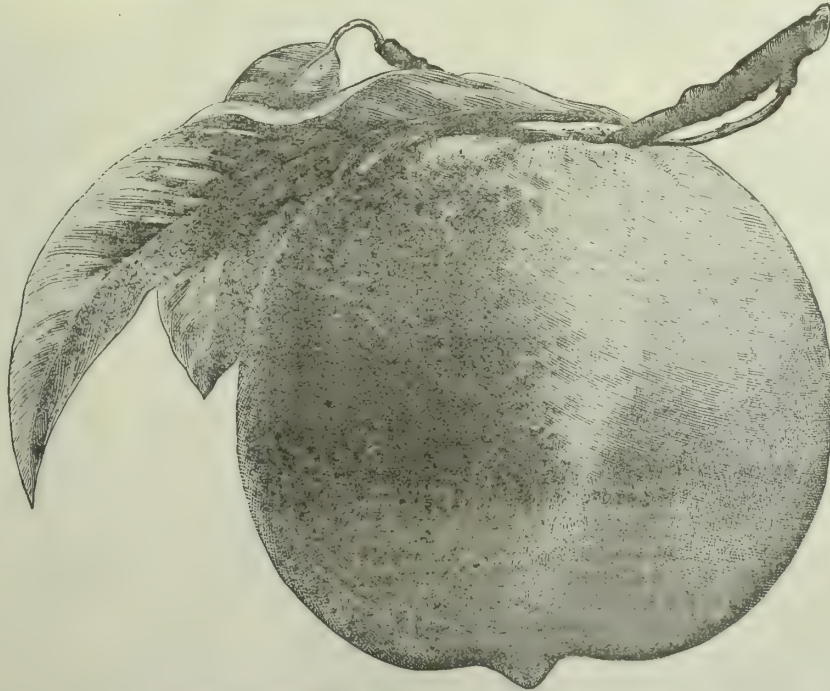
It is much to be regretted by many of his



THE LATE JOHN BRIGHT.

warmest friends and admire that he could not see his way clear to stand by his old friend in his Irish policy. But while his action in this regard is sorrowfully deplored, even those who suffered most by reason of his opposition are the most willing to bear testimony to the sincerity

where the fruit was awarded a first premium and a silver medal. It is described as late to very late for an Eastern peach, following the Smock and ripening in New Jersey about the middle of October. The peach is golden yellow with bright red markings; flesh yellow and



A NEW EASTERN PEACH—THE WONDERFUL.

of his convictions and the purity of his motives. When Daniel Webster died some of the English newspapers put on the emblems of mourning in token of grief for the loss, not of a great American only, but also for the loss of a great representative of the Anglo-Saxon race, and it is meet that we testify to our sorrow, not only that England and the world has lost a great and upright statesman, but that in the death of John Bright America has lost her greatest friend when friends were needed most. Westminster may refuse his body burial, but his memory will be enshrined in the hearts of the millions the world around by whom his praises will be sung in the language he spoke so well.

A New Eastern Peach.

We give herewith a picture of the peach Wonderful, which is one of the Eastern horticultural novelties of the season. It is described by the J. T. Lovett Co. of Little Silver, N. J., who are handling the stock, as a chance seedling originating in the garden of a mechanic in Burlington county, New Jersey. It proved so notable in size and beauty that the attention of a local horticulturist was attracted and he took specimens to the Mount Holly Fair,

New Members of the State Board of Horticulture.

A dispatch from Sacramento announces appointments to the State Board of Horticulture as follows:

Frank A. Kimball of San Diego, vice self, from the State at large; J. L. Mosher of San Francisco, vice Edward Kimball, failed to qualify, from the State at large; Alfred F. White of Sonoma, vice M. G. Vallejo, term expired, for the Sonoma district; L. W. Buck of Solano, vice Drury Melone, term expired, from the Napa district; N. R. Peck, vice self, from the El Dorado district.

We have already expressed our satisfaction with the incumbency of Frank A. Kimball of National City. We are sorry to lose Dr. E. Kimball of Haywards from the board. Possibly his failure to qualify is owing to his absence at the East since the holidays. J. L. Mosher is a practical and progressive orchardist whose property is in the San Jose district. He is well qualified for the place. A. F. White, who replaces Gen. Vallejo, is a leading member of the Santa Rosa Horticultural Society and has taken a prominent part in the last three conventions of the State Board. He is also a practical fruit-grower, with a special taste for entomological studies. L. W. Buck is known to all our readers as one of the largest fruit-producers of Vaca valley, manager of the California Fruit Union, ex-State Senator, etc. Mr. Buck is, of course, well qualified. It might be said of him, as of others of our leading fruit-growers, it is to be wondered at that they were not long ago called upon to serve on the board. Rev. N. R. Peck of Placer, who succeeds himself, is very acceptable both to his district and to the State at large.

Manure Around Fruit Trees.

The papers of the interior of the State credit the Rural Press of this city with advising fruit-growers to pile fresh manure from the stable around their fruit trees for the purpose of protecting them from frost and scale. It is claimed that the ammonia contained in and liberated from the manure kills the scale, and that heat generated in the manure-pile around the trees prevents the scale from settling thereon and doing damage, etc.

One of our city contemporaries took occasion to start such a report, commenting upon the practice as dangerous to the tree. This comment is traveling through the country papers, giving the readers impression that the Rural gave very poor advice.

We do not remember any statement in the Rural upon which such a comment could be based. Some correspondent may have mentioned such an experiment, but we never gave the counsel indicated. Of course piling fresh manure around and against a tree is apt to kill it, and our readers can be assured that we never advised any one to make such an application.

Death of E. H. Cheney.

We regret exceedingly to hear of the death of E. H. Cheney of Bodega, Sonoma county, a pioneer Californian and a long-time subscriber, contributor and friend of the Rural Press. Mr. Cheney was born in Vermont in 1824 and came to California around Cape Horn in 1850. Since 1851 he has lived in Bodega and was identified with all the interests of the community. One of his neighbors assures us that the general sentiment is that a good man has gone from among them.

TREE MOSS AS A SCIURICIDE.—A man who lives near Templeton has been telling the *Times* how he exterminated the squirrels with whose holes his land was honey-combed. After trying various measures without lessening their numbers, he filled a smoker with the moss which is to be found in abundance on oak trees, set fire to it, and after forcing the smoke into the hole, covered it over with earth. The moss does not flare nor burn away rapidly, as one might suppose, but smolders. Straw has been tried in the same manner, but the smoke from it is not so powerful as that from the moss. The *Times* informant says he hasn't a live squirrel left upon his place to-day.

The total national debt at this time is \$1,675,268,158, less available cash items. The total cash in the U. S. Treasury is \$617,591,090. Last month the Government paid off \$13,605,655.

The Southern Pacific stockholders and Congressman Vandever will consult at San Pedro on the development of the harbor.

firm, bright red at the pit, which is very free and small; tree vigorous and prolific. No doubt California experimenters will try the tree, and we can soon have local reports of its value.

The formal opening of the San Diego, Cuyamaca & Eastern railroad was celebrated by the San Diegans last Saturday. Excursion trains were run all day and thousands of people embraced the opportunity of a railroad ride into El Cajon valley.

Certain portions of the Indian Territory will be thrown open to settlers at noon, April 22d. Numbers of people are ready to take up lands in the Oklahoma district at that time.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

OLIVE OIL.—Irving *Express*: Juan Gallegos, of Mission San Jose, has made 300 gallons of olive oil this season.

Butte.

WILD MUSTARD IN DEMAND.—Gridley *Herald*, March 28: Dave Humphreys has four men employed on his ranch pulling wild mustard. They pull from 1½ to 2½ tons per day. After being pulled the weed is put up in bales and shipped to S. F., where a firm of manufacturing druggists use it in making a patent medicine.

MORE CITRUS PLANTING.—Oroville *Register*, March 28: Drescher & Hickmont of Sacramento have men at work putting out 100 acres of land to oranges two or three miles east of Oroville on Wyman's ravine. A carload of splendid trees arrived for them this week from W. R. Strong & Co., and the trees were among the finest ever brought into this county. There are 2000 Sweet seedlings, 3000 Navel, 2000 Parson Brown's, 2000 Villa Franca lemons and some Mediterranean Sweet oranges. It will not be long till all these trees are planted out, as a large force of men and teams are at work.

Colusa.

GRAIN OUTLOOK.—Colusa *Sun*, March 30: Perhaps there has never in the history of Colusa county been so good a prospect for the cereal crop. With the exception of what was drowned out by the breaks, and other smaller places, it is all good on all kinds of land. Never before has the advantage of plenty of water been better demonstrated. There is a large area in grain, but it was stated years ago that the old-number years were the years for summer-fallowing, and the even years for most grain. There will, however, be a great deal of volunteer allowed to grow that would otherwise have been summer fallow. We do not know, but on the whole we will have as many acres as we had in '80 when Colusa had her maximum yield. She sold that year not less than 8,000,000 bushels of wheat. Without some extraordinary backsets she will have as much or more to sell this year. The break on the Hamilton place destroyed a great deal of grain, but much of it is in Yolo county. Of course, we may look out for cheat, and if the rain continues through May there may be rust and mildew; the north wind may blow it out, as it did the big grain in '80, but with any or all these there will be a great deal of wheat to sell by Colusa county. All along the river the early-sown grain is too big, and will fall down to a great extent, but with the improved machinery of to-day it will mostly be gathered.

El Dorado.

SPRINGTIME AT COLOMA.—Cor. *Republican*, March 25: Fruit trees in the valley are in full bloom—even the apples. Many are putting in garden-stuff, and some thrifty people have peaches six inches high. One enterprising youngster has cucumbers, tomatoes, etc., growing without any protection from the weather.

DRIED PRUNES put up by the El Dorado Fruit Packing Co., of this county, have been heard from as far south as Santa Barbara county. Wellheimer & Coblentz, of Santa Maria, are disposing of them in their store and pronounce them equal to any they have ever had in stock.

Fresno.

NEW RAISIN VINEYARDS.—Expositor, March 27: A careful estimate puts the number of acres that are this year being planted to vines in Fresno county at about 7500. L. M. Chittenden of Sanger has been kind enough to make inquiries in that immediate neighborhood for us, and gives the following figures: E. J. Root, 215 acres; Capt. B. Cogan, 130; Mr. Gray, 80; G. A. Smith, 50; Capt. Younberger, 40; Mr. Smith, 30; J. A. Forsman, 20; Balfour, Fortune & Co., 150; Colonel Ellis, 160; G. A. Wilson, 60; J. L. McClelland, 80. Around Madera, in the neighborhood of this city, and around Kingsburg, Selma, and in many other localities, extensive planting has been done, and we believe the total, as stated above, does not exceed the mark. Most of the vines that are being planted are of the raisin grape.

Humboldt.

CANADA THISTLES.—Ferdinand *Enterprise*: Wm. Samuels discovered a bunch of Canada thistles on his place up Salt river recently, but he lost no time in making war on them. How the seed got on his place he is at a loss to know, but that it was genuine Canada thistle he has not the least doubt. He asks us to warn the farmers and dairymen of this valley to keep a sharp lookout at all times for this "terror;" for should it get any kind of a start here it would soon take the entire valley.

Los Angeles.

RETURNS FROM ORANGES.—Pomona *Progress*, March 28: The orange orchard on C. E. White's place in Pomona is the most carefully kept and produces the finest specimens of fruit of any similar property in this section. The whole number of trees is 2500, but only 500 are in full bearing; the rest will come into bearing in one, two and three years more. From the 500 trees that are bearing, over 1000 boxes of fruit have already been picked and packed. There are about 300 more boxes on the trees. They are all Washington Navel, and the larger part of them were sold to Strong & Co. for

\$2.65 a box. Mr. White is now selling the remainder of the crop at \$3 a box. Several trees on the place produced four boxes of oranges each, or crop worth \$12 in one season. A large number of the Navel oranges raised on the place this season went 96 to the box, and about 200 of the oranges weighed over a pound each.

CEREAL CROPS.—L. A. *Herald*, March 30: The Los Angeles Granger has faith in an overruling Providence, and is persuaded that the early and the later rain will come in due time, and that the harvest will follow his industrious efforts to put in a crop. So, early last fall, the plows were out turning in grain under a dry sod and cloudless sky. Then came the early rains and the husbandman saw the benign work of Providence seconding his efforts. Later followed a long period of drought, but there was no slackening of pace on the part of wise farmers. The work of plowing and sowing went right on in all quarters, and then came light but refreshing showers during the early part of March, making a fair crop of grain pretty certain. But the downpour of last week varied from six inches to a full foot of rain poured out upon the thirsty earth. Under this blessed dispensation the young blade of robust wheat and barley has imbibed the most robust sort of life, and is now shooting up on all the plains as if under a miraculous influence. The weather is cool but not chilly. There is neither forcing nor stopping, but a steady, healthy, vigorous growth is the order of the day.

THE ACREAGE SEEDING.—Beginning at the lower end of the county, on the San Joaquin ranch, there are 6000 acres seeded. East of the Santa Ana river there are at least 25,000 acres seeded to wheat and barley. The Laguna Farming Co., just east of the city, has somewhat over 8000 acres, mostly wheat, in the ground. In the district lying between the Old San Gabriel and the Santa Ana river, it is difficult to learn what acreage is seeded. Taking in Garden Grove and Westminster, there is, in all probability, over 50,000 acres seeded to cereals in the district. This gives about 90,000 as the acreage in the southeast end of the county. From the Los Angeles river to the Santa Monica mountains, it is estimated that upward of 75,000 acres of wheat and barley are seeded. From Pasadena to Pomona there is probably not less than 100,000 acres devoted to these cereals. In the Newhall and San Fernando valleys there is at least 50,000 acres seeded to these crops. The gross result, by these figures, is 315,000.

Mendocino.

APPLE SHIPMENTS.—Dispatch-Democrat, March 29: This section is capable of raising as good apples as the best that enter the city markets. Geo. H. Singley, of the Soda Spring ranch west of Ukiah valley, has the honor of making the first shipments by railroad from Ukiah. The following figures are the result. The boxes hold 50 pounds:

15 boxes @ \$1.40.....	\$21 00
4 boxes @ \$1.75.....	7 00
2 boxes @ \$1.60.....	3 20
19 boxes @ \$1.50.....	28 50— 59 70

EXPENSES.

Boxes @ 9c in San Francisco.....	3 60
Freight.....	1 25
Freight on fruit.....	7 00
Drayage.....	1 00
Commission 8 per cent.....	4 78— 17 63

Net results..... \$42 07
Or 40 boxes, \$42 07, a little over 2 cents per pound net. Of these shipments the highest price realized was for Smith's Cider, next for Baldwin.

Modoc.

RECLAMATION AND IRRIGATION.—New Era: James Hornback, of Eagleville, has finished about half the ditches on his place, by which he will reclaim 100 acres of swamp. The water will be used to irrigate the entire ranch. Jim expects to raise at least 400 tons more hay by reason of his reclamation-works. The water comes out of the ground in springs, forming a large swamp. The ditches will carry between 600 and 800 inches of this water all over the ranch. The ditches, when completed, will be three miles in length, two feet deep and three feet wide. Hornback has one of the best ranches in the county.

Nevada.

FINE APPLES.—Record Union, March 28: Wm. Wilkinson, of Lowell Hill, Nevada Co., shipped to this office yesterday a box of magnificent apples. They were of the Spitzenburg, Baldwin, Rhode Island Greening, Newtown Pippin, Rome Beauty, and Smith Cider varieties, large, finely-colored and firm. Lowell Hill has always been noted for its fine fruit, and as an apple-producer it certainly cannot be excelled.

Napa.

GRAIN-FIELDS AND ORCHARDS.—Napa *Register*, March 29: In this valley the amount of wheat sown is probably quite near the average of the last three or four years, though the area devoted to grain is being gradually circumscribed, for orchards and vineyards continue to encroach upon grain-growing. In the neighborhood of Sausal the farmers are sowing more than they did two or three years ago when fields in that section were ravaged by the Hessian fly. The Sausal hills never looked finer. In Berryessa the outlook is excellent; the amount of ground seeded to grain there this season is above the average. Pope valley, Brown's valley and the contiguous hills, promise an abundant harvest.... Here and there throughout the county, especially in

Napa valley, many orchards have been planted, and old ones enlarged. Orchards set out this season are from five to 20 acres in extent. A general variety of such trees as bear well in this section are being planted. Nurseries are pretty well cleared out of desirable trees. Grain-farming in this valley will soon be a thing of the past; fruit-growing is gradually monopolizing the time and attention of land-holders.

Sacramento.

A BIG BORED WELL.—Record-Union, March 27: M. R. Rose, of the Capital Iron Works of this city, has bored a well on R. D. Stephens' place, near Mayhew station, which is the largest in this section of the State. It is 32 inches in diameter and 120 feet in depth. A 60-horse-power engine works a large centrifugal pump, that throws over 32,000,000 gallons per day—more than our City Water-Works pumps in a whole week, and what would measure in a ditch or canal over 1000 miner's inches. So strong is the supply that this immense volume does not in the least lower the source, and the water is as clear and pure as any obtainable from the mountains. It is artesian water and would rise above the surface were it not that it passes off through a gravel deposit some 10 or 15 feet in depth that is encountered about 20 feet below the surface. (Mr. Rose claims that this is a clear demonstration of the fallacy of surface drainage having anything to do with rendering the water in bored wells impure. The artesian water in every instance rises above the surface water and passes off.) Mr. Stephens' water plant has cost him considerable money, but he is now in condition not only to irrigate his own orchards and vineyards, but can supply his neighbors for miles around.

Stanislaus.

GRAIN PROMISING.—Modesto *Herald*, March 28: C. W. Thompson, who is farming across the river opposite Langworth, paid us a visit yesterday. He reports the crops as looking fine, with summer-fallow wheat standing three feet high, and barley heading out. He and his father have over 1700 acres in grain this year, 900 acres of which are summer-fallow. They expect an average yield of 20 bushels.

THE OAKDALE DAM.—In regard to the carrying-away of the Oakdale dam, which was reported last week, "C. S. S. H." writes in the *Graphic* as follows: Twenty feet, more or less, of the Oakdale Irrigation Co.'s dam near the north end was washed out, leaving the north abutment standing. It was built upon tailings which were at the time under water, and which are now washed out to the hardpan, scattering the rocks a few feet below the dam. It will require one or two more such washouts before the dam can be built back from the stream on the north side on solid bottom to stay; \$200 or \$300 expense will repair damages and make it better than ever. The few men working around the bluff are making good progress. The ledge is softer and it will cost less to build the ditch there than was anticipated. A mile of ditch near Oakdale is nearly completed, at a cost of from \$600 to \$800 per mile.

Tulare.

GRAIN SAMPLES.—Visalia *Times*, March 28: A number of sample exhibits of wheat and barley now growing in various portions of the county have been brought to town this week. Fred Creighton exhibits a bunch of bald barley grown on his ranch seven miles east of this city, that stands three feet high and is heading out nicely. All the grain shown is of a healthy growth.

MONEY IN CHICKENS.—John Fulgham is one who cares for the little things on his farm. From January 1st up to Saturday last he has sold eggs from his ranch to the merchants of this city to the value of \$73, and says that by the last day of the present month (March) he will have derived an income from this source of about \$90. This will be at the rate of nearly \$1 per day for eggs produced on his ranch.

CHEESE FACTORY.—Hanford *Sentinel*, March 28: The meeting held in the office of W. R. McQuiddy, last Saturday, was quite a success in point of interest. Mr. Cohoe placed before the meeting some important facts about cheesemaking and the "raw material" necessary. A general talk, in the way of questions and answers, brought out the facts that 400 cows are necessary to start with on a paying basis, and that said cows must be something better than "mustang" breeds. Mr. Cohoe said that he had no fancy or pet breeds to urge, but that cows for a profitable dairy must be good milk-producers and well tamed and broken. Wild cattle and high kickers are not meant for the dairy. He had no boom talk to offer to intelligent farmers, but assured them that dairy business is profitable only on a basis of good cows, good care and painstaking labor. His remarks were well received, and a committee consisting of O. R. Cross, J. C. Ensign, A. M. Stone, Wm. Ogden and J. N. Patterson, was appointed to canvass their respective neighborhoods to find out how many cows can be pledged to furnish milk on which to start a factory. The committee is to report next Saturday at a meeting in Hanford, when Mr. Cohoe will submit a proposition for starting a factory. [Later dispatches state that the meeting of March 30th resulted in the forming of a co-operative cheese-factory association.—Eds. Press.]

CACTUS HEDGE.—Visalia *Times*, March 21: A number of persons on Tule river who invested in "cactus-hedge fence" a year ago are now wishing they had not done so. The hedges have not grown, and there is a demand for the

money for which notes were given. There is a good prospect for a lawsuit over the matter.

A GENUINE HORSE-FAIR.—Hanford, April 1: A great horse show took place here to-day. There were 63 stallions in the procession, headed by the Hanford Brass Band. The exhibition included imported Norman, Clyde and Cleveland Bay horses, standard-bred trotting, thoroughbred and grade stallions. After the stallions' exhibit the mares and colts were brought out in great numbers, making the exhibition one of the best ever held in this part of the State.

ORANGES AND LEMONS.—This time they come from A. V. Tuohy of Lewis creek. They were about the largest we have received this season, and like all Tulare citrus fruit, without spot or blemish. A number of fine lemons accompanied the oranges and were equal to anything we have seen grown in the State.

MORE VINES.—Paige & Morton are evidently of the opinion that there is little danger of the bottom dropping out of the raisin market very soon. The work of planting a vineyard of 85,000 vines has just been completed, covering an area of 150 acres. This, in addition to what was already in, will make a very large vineyard indeed.

Yolo.

DRAFT HORSES.—Woodland *Mail*, March 30: W. Hillard, a horse-buyer, shipped ten head of fine draft horses to S. F. on Tuesday. The animals were half Norman and Clydesdale and weighed from 1400 to 1600 pounds. They were raised in the vicinity of Woodland. The price paid ranged from \$150 to \$200 per head.

Yuba.

CARP IN THE TULE.—Marysville *Appeal*, March 29: During the recent rainy weather the water, John Schlagg says, was higher at his place than ever known before. It has now gone down, and may be said to have done comparatively little damage. On Mr. Schlagg's place, and in fact all over the tule basin in the ponds and elsewhere, there are immense quantities of carp of all sizes. As the ponds dry up, the fish die on the ground.

OREGON.

AN ENORMOUS HORSE.—Grant's Pass *Courier*, March 28: Jumbo, a Canadian horse of the Clydesdale breed, was exhibited in this place Monday. The animal is of a dapple-bay color, standing 20½ hands high and weighing 2760 pounds, which at six years of age is exceptionally heavy—in fact Jumbo is the largest horse on record. The arm measures 32 inches around; stifle, 45 inches; across the hips, 34½ inches; around the girth, 7 feet 11 inches; in length, 11 feet 4 inches. The animal was sired near Brompton, Canada, and is a "right smart of a chunk" of a horse. Jumbo has been known to draw over six tons—his walking gait is five miles an hour. His owner, W. T. Lundy, has refused an offer of \$5000 for him.

NEW MEXICO.

HEALTHY HERDS.—Albuquerque, March 20: The cattle sanitary board of this Territory report that since the enactment of the quarantine law in 1887, against diseased cattle being admitted, no case of bovine disease, particularly of Texas fever, has appeared among the herds. The cattle are everywhere in a healthy condition, and are going into the spring and summer seasons in most excellent fix. The perfect health of the bovine stock of New Mexico during the time the quarantine law has been in operation proves conclusively that the Texas fever does not originate within the borders of this Territory, and the law against its possible introduction is so effectively administered that it cannot be brought here.

Important to Fruit-Growers.

The Supreme Court rendered a decision, March 21st, of considerable interest to fruit-men.

James W. Gates, a fruit-grower in Vaca valley, contracted to sell his apricots at a certain price per pound to the Carquinez Packing Co. of Benicia. The fruit was shipped in open boxes, Gates weighing it as it was loaded upon the cars at Vacaville and the company weighing it again when it was unloaded at Benicia.

When the time came for a settlement it was found that Gates' weights amounted to more than the weights taken by the company. It was agreed that his weights were correct and that the difference arose from evaporation and shrinkage of the fruit during transportation. Then Gates demanded \$301 60, the amount due him according to his weights over and above the amount due according to the weights of the company.

The company refused to pay, Gates sued in the Superior Court and got a judgment for the full amount. The defendants appealed.

The appellate court held that the reception of the fruit by the railroad was a receipt by the purchaser, and that the shipper's weights were authority; also that the delivery at Vacaville was a delivery to the defendant, according to the terms of the contract. The judgment of the lower court was therefore affirmed.

ORANGES IN PHILADELPHIA.—Pancoast & Griffiths, general commission merchants, 122 Dock street, Philadelphia, under date of March 26th, report Florida oranges in moderate supply and good demand at firm prices. They quote fancy bright oranges (176 to 200 per crate) at \$3.25@3.75.

SPECIAL RATE to the First Three Purchasers in any section where my Mill is not now in use.

SEND IN YOUR ORDERS AND GET THE BEST WINDMILL IN THE STATE AT COST.

IMPROVED DAVIS WINDMILLS.

IRRIGATING WINDMILLS a Specialty.

35 YEARS IN CONSTANT USE.

Ask parties who have used the Improved Davis what they think of them.

NO EXPERIMENTING!

EVERY MILL WARRANTED TO SATISFY!

I will contract to erect my Windmills and remove them at my own expense if they fail to do as represented.

TESTIMONIALS.

Mr. R. F. Wilson—DEAR SIR: You have my permission to use my name as reference in your catalogue. Your Mills have given entire satisfaction. I am using twelve. Yours truly,
C. H. HUFFMAN, Pres. Merced Canal and Irrigating Co.
STOCKTON, CAL., Feb. 14, 1889.

Mr. R. F. Wilson—DEAR SIR: The Windmill I purchased of you about one year ago has given entire satisfaction. Yours truly,
L. U. SHIPPEE, Pres. Stockton Savings and Loan Society.

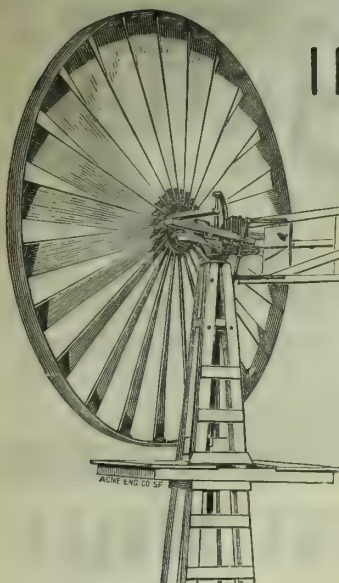
HORSE POWERS, HAY PRESSES, TANKS, WATER TROUGHS, Etc.

Illustrated Catalogue Free on Application.

R. F. WILSON, 347 Commerce Street, Stockton, Cal.

Successor to J. S. DAVIS.

P. O. BOX 126. TELEPHONE No. 314.



STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS

THE MILLER LIGHTNING HAY PRESS.

CAPACITY 30 TONS PER DAY,

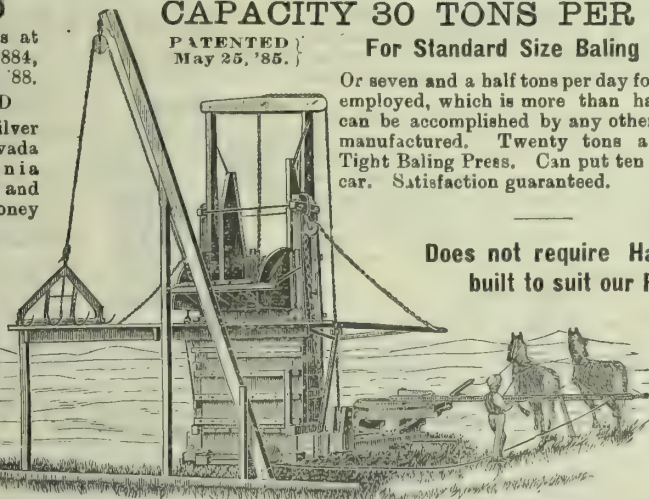
PATENTED
May 25, '85.

For Standard Size Baling Press,

Or seven and a half tons per day for each man employed, which is more than has been or can be accomplished by any other Press yet manufactured. Twenty tons a day with Tight Baling Press. Can put ten tons in a car. Satisfaction guaranteed.

Does not require Hay Stacks built to suit our Press.

ALSO BUILT
WOOL PRESSES
TO ORDER



AWARDED
First Premiums at
State Fairs, 1884,
1885, '86, '87 & '88.

AWARDED
Gold and Silver
Medals at Nevada
and California
State Fairs, and
won contest money
of \$50.

Requires but Four Men
and Two Animals to
do Rapid Work.

HOUSER COMBINED HARVESTER

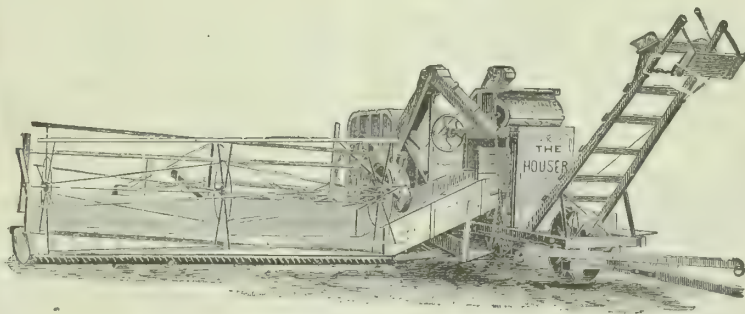
Received First Premium, State Fair, Sacramento.

No Experiment!

No Failures

NINE YEARS IN THE FIELD.

500 IN FIELD USE.



None Ever Returned.

They have a larger sale than all other Harvesters combined. Built for heavy work and large grain fields with heavy grain. Always victorious in competitive trials. They have reduced the cost of Harvesting to less than \$1 an acre, and save three bushels an acre over and above Heading and Threshing. Have our Premium Extra "Star" Double Shoe Cleaner, the only successful Harvester Cleaner made. Received First Premium in 1888.

WOODLAND, Sept. 19, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: The 14-foot Houser I bought of you this season fills the bill right up to the handle. I have cut 1200 acres; have threshed 628 bags of wheat in one day, averaging 540 bags for six days. The Star Cleaner and Improved Shoe are perfect, and last, but not least, I turn a square corner and save all the grain.

J. R. JONES.

YUBA CITY, Sept. 13, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: I have one of your star Cleaner and Improved Shoes on my Houser Combined Harvester, and can say that the cleaner is far superior to any I have ever seen in barley, being able to return unthreshed barley and pieces of heads direct to the cylinder, something that everybody can appreciate that has run a Harvester. The Cleaner is of sufficient capacity, I having threshed 650 sacks a day. It is well made and very durable. The new shoe is perfection. I consider the Houser very strong and durable, and as light draft as machines of lighter build of same capacity.

A. GRAFFIS.

BIGGS, Nov. 25, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: I bought one of your 16-foot Houser Harvesters this season and cut my crop of 1200 acres with same without any expense for extras. The Star Cleaner and Improved Shoe are perfection. Heretofore, when using another make of Harvester, I had to have all my grain recleaned at an expense of \$800 or more, but with my machine it was not necessary, as the grain was clean enough for seed as it was taken from the spout, and I only regret that I did not buy one two years ago, and I would have saved over \$5000. I prefer the Improved Houser to any other make of Combined Machines, and would recommend it to my friends in need of a Combined Harvester.

W. S. RIDDLE.

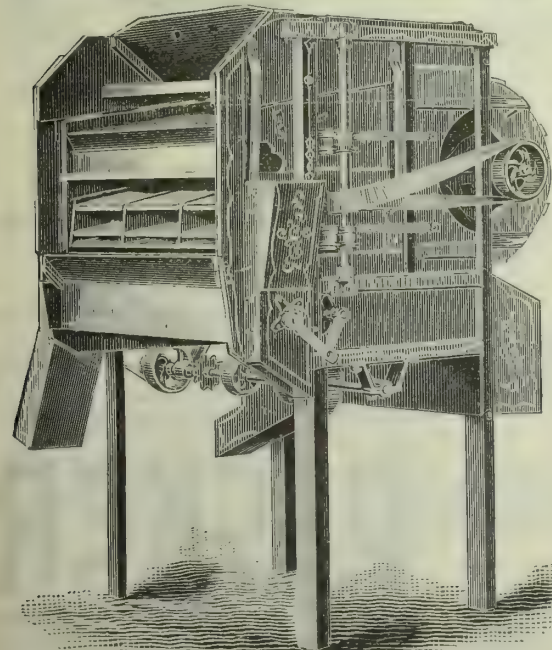
YUBA CITY, Oct. 15, 1888.

Stockton Combined Harvester and Agricultural Works
—GENTLEMEN: The 16-foot Houser Harvester that I bought of you this season, with the Star Cleaner, gave entire satisfaction, and, I think, is the best Harvester in the market. Will recommend it to anybody or friend that wants to buy a Harvester.

J. W. HUMPHREYS.

Also Manufacturers of "Star" and Angle Sieve Grain Cleaners, Curved Standard Gang Plows and Plow Extras, Passenger and Freight, Motor, Cable and Horse Cars.

Office and Works, cor. East & Main Sts., 4 blocks East of S. P. R. Depot, STOCKTON.



The "STAR" Double Shoe CLEANER

—FOR—

COMBINED HARVESTERS,

Awarded First Premium at State Fair, Sacramento, Sept. 24, '87.

(PATENT APPLIED FOR.)

The "STAR" Double Shoe CLEANER

—FOR—

STATIONARY THRESHERS

We also build to order the "Star" Cleaner with sufficient capacity for any threshing machine. It is mounted on trucks and can be set by the side of any "thresher," the power being transmitted to it by means of a counter shaft on the thresher, or belt from the engine. The grain is conducted to the hopper by an elevator extending from the grain auger of the thresher to that of the Cleaner.

SCREENS



Manufacturers of all kinds of Perforated Metal, Lip and Lip Hook Screens, round and slotted, or any other kind desired for cleaning and separating grain. Farmers will please take notice that the metal screens do not clog or choke up as do the old wire screens heretofore in use. Also manufacturers of Quartz Screens. Information by mail. California Perforating Screen Co., 45 & 147 BEALE ST., S. F.

AGENTS LOOK HERE
and farmers with no experience make \$2.50 an hour during spare time. J. V. Kenyon, Glens Falls, N. Y., made \$18 one day, \$76.50 one week. So can you. Proof and catalogue free. J. E. SEER and Co., Cincinnati, O.

TAYLOR'S FUMA CARBON BISULPHIDE

For Killing Squirrels, Gophers, Prairie Dogs

AND OTHER BURROWING ANIMALS.

This article is specially prepared for this purpose, and will give a better return for the money than any other goods on the market. No animal can live in its closed hole with this. It leaves no useless residue.

Get a trial order from your Druggist and see for yourself.

Manufactured by EDWARD R. TAYLOR, Manufacturing Chemist, Cleveland, Ohio

JAMES LINFORTH, Agent, 37 Market St., San Francisco.

FOR SALE BY ALL DRUGGISTS.

Directions for use with each package.

BEST TREE WASH.

"Greenbank" 98 degrees POWDERED CAUSTIC SODA (tests 99.3-10 per cent) recommended by the highest authorities in the State. Also Common Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,

Manufacturers' Agents,
104 Market St. and 8 California St., S. F.

MISSION ROCK DOCK

GRAIN WAREHOUSE,

SAN FRANCISCO, CAL.

75,000 TONS CAPACITY. 75,000

Storage at Lowest Rates.

CHAS. H. SINCLAIR, Supt.
Cal. Dry Dock Co., props. Office, 808 Cal. St. room 18

A. M. ABBOTT,

MANUFACTURER OF

THE ABBOTT WINDMILL.

BUILDER OF

Wooden Tanks

—AND—

Tank Frames

Of all Sizes.

Also of SUPERIOR DEEP-WELL PUMPS.

Cor. Aurora and Market Sts.,

STOCKTON, - - - CALIFORNIA.

FRUIT MARKETING.

Grading, Packing and Marketing of Fruit.

[Read by A. L. BANCROFT at the Meeting of the California State Horticultural Society, March 29, 1889.]

The feasibility of a great many business enterprises is best tested by considering how the details can be arranged from beginning to end. Herein are some suggestions which I think will be found worthy of the careful consideration of the California fruit-growers. I will consider them in detail.

The proper handling of dried fruit from the time it is taken from the tree until it is packed and ready for shipment; to secure picking at the right state of ripeness, cleanliness, uniform grading, packing in suitable boxes or sacks and marking or labeling, is certainly a very important detail of the dried-fruit business. Simply advocating a certain plan through the papers or in convention will not secure what is wanted with any degree of certainty or promptness. Something more is needed and I think it can be done. We have two organizations in the interests of the fruit industry through which much might be accomplished. I refer to the California Dried-Fruit Association and to the California Fruit Union—which name, by the way, I do not very much like, as it sounds too much like a trust union for the purpose of trying to secure monopoly and extortionate prices.

Let us consider dried fruit first. How can we secure this uniformity of handling, grading and packing? I think it can be accomplished to a considerable extent at once if the California Dried-Fruit Association will adopt a general trademark and have it registered under which the better grades of dried fruit can be packed and sold. Let them consider and adopt the kind, size, shape and color of the sacks or boxes they wish each kind of dried fruit to be packed in, and have the use of them secured to the association by registering or a design patent. The sacks might have stripes of certain widths and colors woven into them, with a space in front left without stripes for the mark, and the association supply them to the packers. If a peculiar box could not be selected which would not be expensive, a colored label pasted on the box or a design printed on the box itself would accomplish the same results.

Only the members of the association should be allowed the use of its trademark and its packages, and also only those who would enter into a written agreement with the association to put up their fruit, grade it and pack it according to the requirements of the association and to bind themselves to pay all damages which may be sustained and all expenses incurred by the association by reason of their not doing so. This agreement should be carefully drawn up by a good lawyer and printed and remain in force for but one season; to be renewed each succeeding season unless there are reasons why they should not be renewed. Space on the agreement for renewals could be provided at the end of the blank form. Those having the right to use the trademark should be furnished with stencils, labels or other means of attaching it to their packages.

The association should instruct their packers how they wish the fruit prepared, graded and packed; whether they would allow lye peeling or not; to what extent sulphuring would be allowed, etc. In packing, no selecting of the best fruit for the top of the package should be allowed, but the whole package should be the same all the way through. Facing of the top layer in boxes would be desirable, but to be done with average fruit.

The association need not restrict their business to the fruit put up in their packages and under their own trademark, but might continue to do as now—sell whatever is offered; but if a plan of the kind I have here outlined was thoroughly carried out, I am very confident that it would not be many seasons before every fruit-packer would be asking for admittance to the association, and for the right to use their packages and trademark.

On the outside of the packages, in addition to the trademark of the association and the name and grade of the contents of the package, the packer's name and location should be given, and perhaps some other features might be added, after having been sanctioned by the association, such as "Highland Fruit, packed by George Doe, Castleton, Cal.," or "Mountain Fruit," "Dry-land Fruit," "Non-irrigated Fruit," "Upland Fruit," etc.

The packer should be allowed to select a permanent market for his goods so far as could be done. If his goods are scattered all over the world, no impression could be made by what would be likely to be packed by any one house; but if his entire pack was sent to the same market year after year, he would be enabled to make a personal reputation for himself as well as for the fruit, grading and trademark in general.

In each package of fruit sent to market should be placed two manilla envelopes addressed to the purchaser of the package, one from the association containing a circular explaining the working of the association and the way the trademark is used, the grading of the goods, etc., something like the one which I

have here as a suggestion and will read. But comparatively few people know how to cook dried fruit really well. In this same envelope should be placed a leaflet containing recipes for preparing and cooking dried fruits, etc. In the other envelope should be a short circular containing the trade name of the goods, name of the dealer or grower packing the goods, and the name (or if a Chinaman, the number) of the individual who put up that particular package, with a request to inform the packer in case the goods did not prove to be all that they should be, and in case of any serious defect or apparent fraud, to return the goods to the seller, who will forward them to the association.

In addition to full statement in English, a more condensed one should be made in Volapuk, when the goods would be ready to be sent to any part of the world. The cooking recipes should also be in Volapuk.

This same plan of a trademark, grading, etc., can to a considerable extent be applied to green fruits, although as green fruit will always have to be examined before purchasing to ascertain its condition, the quality, grading and packing will show for themselves at that time, and the plan would not be so useful as in the case of dried fruits. This plan can, I think, be readily adapted to the wine interest of California.

The Circulars to Be Placed in the Fruit Packages.

The following are the circulars to which allusion has already been made. They are to be placed in envelopes suitably addressed "to the purchaser" of the packages:

[TRADEMARK.]

CALIFORNIA DRIED-FRUIT ASSOCIATION.

23 & 25 California street, S. F.

Season of 1889.

This association was not formed to make money on its own account, but to help the members who are the fruit-growers and packers of California and to promote the fruit interests of California.

The two great objects to be consumed by the association are, first to secure cleanliness and proper care in picking at the right time, proper handling in drying, uniform grading and packing, and second to have the goods evenly distributed over the markets of America and over the entire world, so that there will not be an oversupply at some points and a bare market at others. These things being consumed, the prices and profits to the growers and packers will take care of themselves.

The association assists in marketing goods which do not go out under their name and trademark, but do not assume any responsibility, morally or financially, as to the quality of those goods; but the goods which they take the deepest interest in are those which are packed under their trademark and marketed through their agencies.

The goods bearing the trademark of the association are packed by its members under contract, containing among others the following stipulations: The fruit must be picked when in the right state as to ripeness. It must be kept perfectly clean. It must be properly handled during the process of drying according to the detailed instructions given by the association to the growers and packers. It must be properly graded also according to instructions. In packing there is to be no selecting of the finest fruit to put on top of the packages, but the top must be a sample of the contents of the entire package. The goods must be packed in the kind of packages designated by the association, and each package must contain two envelopes addressed to the purchaser—one containing this circular and receipts for cooking and the other a card giving name, address, etc., of the packer.

The packer agrees to follow these instructions implicitly, and to be responsible for any loss occasioned by their non-fulfillment. The purchaser is earnestly requested to report to the association at San Francisco any and all instances where the goods show indications of a failure to properly carry out the instructions on the part of the packer.

In any case of evident gross carelessness on the part of the packer or his employees, or indications of fraud, the purchaser is requested to return the goods to the party from whom they were purchased with a statement signed by himself and two others to the effect that they are in the same condition as when received, when the goods will be replaced by others or his money and all expenses will be refunded to him, and the goods will be returned to the association at the expense of the packer; and if upon investigation it is found to be deserved, the right of the packer to the use of the trademark will be canceled, as is provided for in the agreement with him.

This we ask in the name of honesty, fair dealing and a desire to place upon the market a line of goods which can in every instance be depended upon.

There are two grades of most of goods packed under our trademark; the best are EXTRA, the second grade are CHOICE. These are really choice goods, and nothing but what is entitled to be graded as choice will be put up under our trademark. The difference between the EXTRA and CHOICE is mostly in the size and appearance of the fruit. The CHOICE will be found equally as palatable and wholesome as the EXTRA. No peeling by means of lye is permitted, and overbleaching is carefully guarded against.

It does not follow that there is not a great deal of good fruit grown, dried and packed in California, which is first-class, that does not bear our labels, but we do claim that what is packed under our trademark, purchasers will be able to depend upon if it is a possible thing to accomplish it.

[NOTE.—It may be considered best to add two other grades, making four, viz.: Fancy, Extra, Choice and Standard.]

The more prominent varieties of fruit, manner of preparation, grading and packing which are sold under our trademark, are as follows: The exact trade names are given.

[Here is to follow a full list of the dried fruits, raisins, nuts, etc., for which distinctive names and grades are adopted.—EDS. PRESS.]

The following are the names and addresses of the packers who have the right, under a written agree-

ment with us, to pack under our trademark during the season of 1889: [To be followed by a list.]

Circular from the Individual Packer.

[TRADEMARK.]

CALIFORNIA DRIED-FRUIT ASSOCIATION.

23 & 25 California street, S. F.

Season of 1889.

[Name and Grade of Fruit.]

Extra California Yellow Dried Peaches.

The grower or dealer packing this fruit is
GEORGE JONES, Vacaville, Cal.

The workman who put up this particular package is 169.

This fruit is dried, prepared and packed under the trademark and according to the rules of the California Dried-Fruit Association, as explained in their circular inclosed herein in another envelope.

It is the desire of the packer as well as of the association to have their stipulations faithfully, fully and honorably carried out, both for his individual reputation and for the credit of California fruit.

In case this package does not open up in perfect order in every particular, the packer will esteem it a favor if the purchaser will write a statement of the condition of the goods and mail it with this card to the California Dried-Fruit Association for him.

Should there be any serious defect or apparent fraud, please return the goods to the association through the seller as explained in the circular of the C. D. F. Association.

State Horticultural Society.

The meeting held in the rooms of the State Board of Horticulture on March 30th was one of the best-attended of the year. President Hilgard occupied the chair. Geo. F. Weeks of S. F., C. A. Wetmore of Livermore, and J. H. Wheeler of S. F. were elected to membership. W. H. Mantz of San Jose, Emory E. Smith and H. Krebs, Jr., of S. F., were proposed for membership.

Some discussion was had concerning fruit prospects as affected by the heavy rain. All seemed to agree that the apricot crop had been unfavorably affected, some that the peach and cherry had suffered, and that the plums and prunes were apparently all right. All, however, claimed it rather early to speak definitely, and that the April meeting would be a better time for reports.

Fruit Pests.

A resolution relating to the office of State Inspector of Fruit Pests, and indorsing the work of W. G. Klee as such State Inspector, was introduced by Mr. Coates and referred to a special committee consisting of Messrs. Hatch, Aiken and Coates, who subsequently reported as follows:

WHEREAS, It has been deemed advisable to virtually abolish the office of Inspector of Fruit Pests and substitute therefor the office of State Entomologist and Quarantine Officer, therefore be it

Resolved, That the thanks of this society are due and are hereby tendered to W. G. Klee, late Inspector of Fruit Pests, for the ability and fidelity shown by him in the performance of his duties, and his appointment to the new office is hereby recommended.

The report was adopted on motion of Mr. Lelong.

Marketing Dried Fruit.

The greater part of the afternoon was taken up in hearing the plan of A. L. Bancroft for the grading, labeling and marketing of dried fruits, and discussion suggested thereby. Mr. Bancroft's essay is given upon another page of this issue.

The subject-matter of the paper read by Mr. Bancroft was referred to a committee consisting of the following: A. L. Bancroft, Judge Blackwood, A. T. Hatch, L. W. Buck and J. L. Mosher.

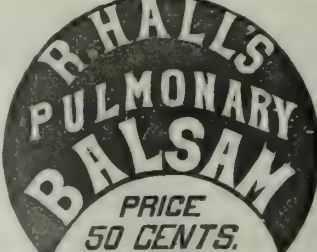
The meeting then adjourned.

Cheap Money for Farmers!

\$550,000 TO LOAN ON RANCHES ON MORTGAGE; large sums below market rates. S. D. HOVEY, 218 Pine street, San Francisco.

ARGONAUT STOCK FARM,
G. M. DIXON, Prop., Sacramento, Cal.
Importer and Breeder of Thoroughbred Polled Aberdeen-Angus Cattle.

The ARGONAUT HERD of Polled Angus Cattle is the largest and finest on the Pacific Coast. Choice young Bulls and Heifers for sale at reasonable prices. A fine lot of young high-grade Bulls suitable for range service, this season, will be sold at prices to suit the times. If desired, can supply a carload lot of yearling Bulls and Heifers. For information call on or address G. M. DIXON as above.



For Coughs, Colds, Croup, Asthma, Bronchitis, Influenza, Loss of Voice, Incipient Consumption, and all Throat and Lung Troubles. J. E. GATES & CO., Proprietors 417 Sansome St., San Francisco.

WELLS, RICHARDSON & CO'S

IMPROVED Butter Color.

EXCELS IN STRENGTH PURITY BRIGHTNESS

Always gives a bright natural color, never turns rancid. Will not color the Buttermilk. Used by thousands of the best Creameries and Dairies. Do not allow your dealer to convince you that some other kind is just as good. Tell him the BEST is what you want, and you must have Wells, Richardson & Co's Improved Butter Color. Three sizes, 25c, 50c, \$1.00. For sale everywhere. WELLS, RICHARDSON & CO. Burlington, Vt.

HOWE SCALES.

ALL KINDS

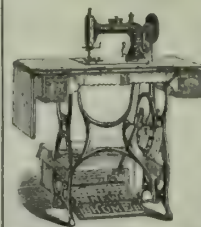
Hay, Dormant, Grain, Portable, Grocers' Even Balance, Post Office, Butchers' Spring Balances.

Coffee Mills,

White's Money Drawers, Fiske's Weather Vanes, Store, Warehouse and Dry Goods TRUCKS.

D. N. & C. A. HAWLEY,

221-223 Market St., San Francisco, Cal.



RANKS HIGH

Above all competitors

THE POPULAR

NEW HOME

Light-Running SEWING MACHINE.

Leader of the age in practical improvements. Cards, Banners and Price Lists free on application.

The NEW HOME SEWING MACHINE CO. CHAS. E. NAYLOR, General Manager, No. 725 Market St., History Building, S. F.

JOB LIST,

Ready April 1st,

—OR—

SECOND-HAND

SHOT GUNS,

RIFLES,

PISTOLS

And various Sporting Goods that have accumulated. Send 2-cent stamp for above.

GEO. W. SHREVE,

525 Kearny Street, San Francisco, Cal.

SELF-PLAYING ORGAN.

An Automatic Organ Combined with an Ordinary Five-Octave Organ.

NO TEACHER OR PRACTICE NECESSARY. ANYBODY CAN PLAY the latest and most difficult music of every class. Every home should have one. Send for descriptive circulars, prices and terms to

KOHLER & CHASE, 137 & 139 Post St., Dealers in all kinds of Musical Goods.

DECKER BROTHERS' PIANOS.

KOHLER & CHASE, Agents, 137 POST STREET, S. F.

BOOK ON BEES.

Am. Beekeeper's Guide, by E. Kretschmer. This book contains 244 pp. of practical instruction valuable to every Beekeeper: all presented in plain, practical language explaining every operation step by step, so that no one can fail to understand it. By mail, post-paid, paper, 40 cts., cloth, 65 cts. H. M. CAMERON, 474 Eighth St., Oakland, Cal.

Apiarian Supplies Manufacturing Depot.

STOCK, MACHINERY and BUSINESS FOR SALE. Apply to MRS. J. D. ENAB, Napa City Cal., P. O. Box 306.

APIARIAN SUPPLIES.

Italian Queens, \$2.50 each; Black Queens, \$1 each; Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000 Comb Honey house and retail; Hives, etc. W. STYAN & SON, The Homestead Apiary, San Mateo, Cal.

PEOPLE WITH FAMILIES,

Wishing steady employment for themselves and children, will do well to address

OTAY WATCH CO., Ota, Cal.

For Owen's River Valley Lands,

Inyo County, Raisin and Fruit country, from \$1 up, apply to S. H. BIGLAND, 39 Sutter St., S. F.

CALIFORNIA VICTOR MOWER

IMPROVED!
KING OF ALFALFA CUTTERS.

AGENTS WANTED.

Only Two Horses required to
draw a 6-foot Victor in
Heavy Alfalfa.

NO JOINT IN FINGER BAR.

Pitman Short and Strong.

Draft Direct from
Cutting Apparatus.

WILL REPLACE

FREE OF COST

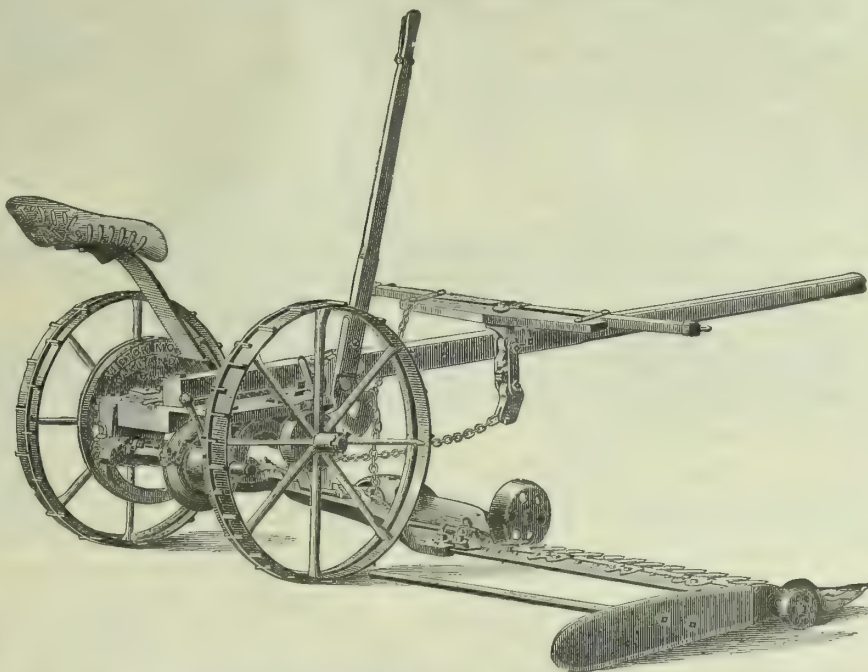
Any Part Found Defective.

Gun Metal Bearings

IF THERE IS NO AGENT FOR THE VICTOR IN YOUR VICINITY, WRITE US DIRECT FOR PRICES and TERMS.

JUDSON MANUFACTURING CO.,

14 & 16 Fremont St., . . . San Francisco.



Guaranteed to do More and Better Work,
with Less Draft upon the
Horses, than any other
Machine made.

WE GUARANTEE

Construction,
Material and
Operation in the Field.

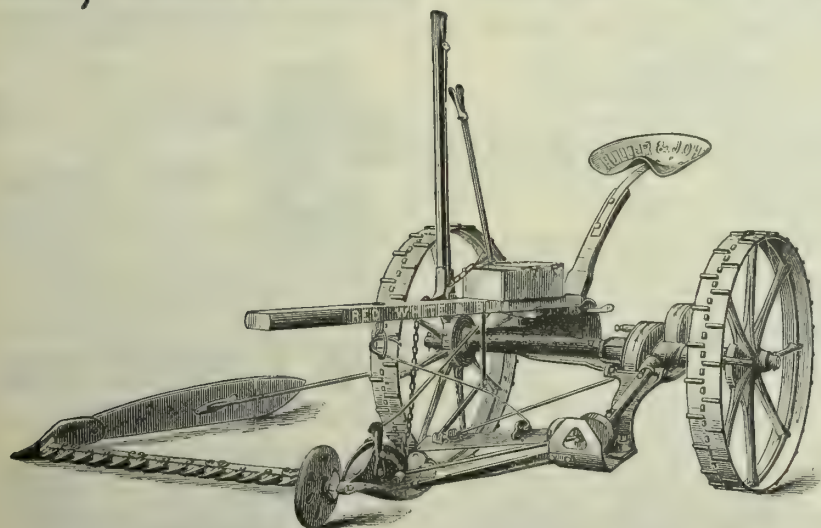
FOUR SIZES:

4 Feet Cut,
4½ Feet Cut,
5 Feet Cut,
6 Feet Cut,

No Side-Draft.

FIRST GUN FOR 1889.

RED, WHITE and BLUE MOWER.



Manufactured Specially for the Pacific Coast.

THE BEST MOWER IN THE WORLD.

ADVANTAGES:

Gearing Covered from Dust.	Light and Direct Draft.
Brass Boxes for Bearings.	Steel Plate on Shoe under Scythe Head.
Floating and Rocking Cutter-Bar.	Cutter-Bar Carried on Wheels.
	Steel Used Largely in Place of Iron.

Frame for Pole and Seat independent of gear frame, making it very easy on horses and driver. No jar or vibration on seat or pole. Wheels are high and have wide face—it has wide tread, the draft is direct from frame and does not pull down on pole or lift the wheels from the ground, thereby giving great cutting power, and at same time very light weight and draft. Scythe works against adjustable steel holders and does not wear on the cutter-bar—a great advantage over others.

THE BEST MOWER ON EARTH.

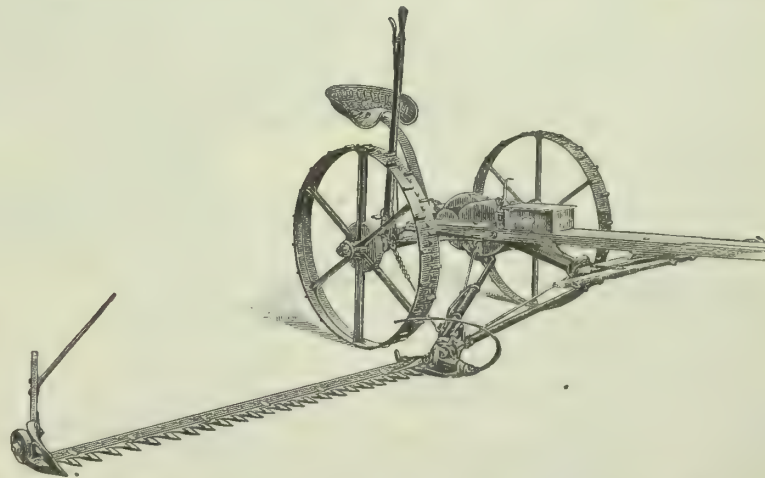
For 1889 the "RED, WHITE and BLUE" will be made for us to suit the requirements of the Pacific Coast trade, and will be, without an exception, the very best Mower in the market. Dealers cannot afford to be without it. Be sure and see us before contracting for your Mowers for 1889. A fine stock of Hollingsworth Rakes. SEND FOR CATALOGUE.

BULL & GRANT FARM IMPLEMENT CO.

Nos. 211, 213 and 215 J Street, SACRAMENTO, CAL.
And 21 and 23 Spear St., San Francisco.

FIRST IN THE FIELD!

THE DEERING MOWER!



READ THE FOLLOWING LETTERS; THEY TELL THE STORY.

NATIONAL CITY, CAL., March 13, 1889.
W. C. Rarig, San Francisco.—DEAR SIR: We felt the importance of ascertaining the true value of your 1889 Mowers and have taken great pains to encompass the question thoroughly and effectually before endorsing and offering them to our customers—remembering David Crockett's grand advice, "Be sure you are right then go ahead." Upon careful inquiry we were referred to Messrs. Thomson Bros. of San Pasqual as owners of extensive alfalfa fields, and generally known as practical men with large experience in machinery—being regarded as experts. We approached them as strangers and submitted our proposition. They said that under no circumstances or considerations would they entertain a proposition to purchase any mower except the Buckeye, their last year's purchases of other makes being wholly unsatisfactory. We waived the idea of sale and asked for their unbiased judgment upon trial so as to more carefully determine a safe policy in ordering forward a quantity of the 1889 Machines with the advanced improvements.

With great satisfaction we enclose and submit their voluntary statement, and assure you that the test was under our own eye, with our best and long-experienced agent in support, and was crucial in every particular. You can now move ahead with perfect confidence.

We have wired the factory for two carloads, and you can rest assured that we shall require at least one and probably two carloads in addition.

Oh yes, Mr. Thomson bought both the 4½-foot cut and 6-foot cut machines, and a neighbor joined him in saying that any one wanting a mower would certainly buy the New Deering 4½-foot cut, or Giant 6-foot cut, if they saw them in operation.

THOMSON BROS.' RANCHO, SAN PASQUAL, CAL., March 13, 1889.
Messrs. Isham, Gordon & Co., National City, Cal.—GENTLEMEN: After testing your 1889 New Deering and 6-ft. cut Giant Deering Mowers in our heaviest alfalfa, we unhesitatingly say that they are a great success. The draft is remarkably light. The 2½-inch section a striking improvement. The tilting by a simple movement of the foot seems to us perfect. The supplemental shoe is a valuable feature. The machines, as a whole, we pronounce a grand triumph of mechanical skill.

As a matter of fact the 6-foot cut Giant, drawn by our light team, appears to us as easy draft as the regular 4½-foot cut of other makes. We feel that we can confidently recommend them as being the best.

The Buckeye has always been our favorite until this day. Yours very truly,
(Signed.) THOMSON BROS.

SEE OUR AGENTS—in every town in the State—or write to us for descriptive catalogues.
A FULL STOCK OF MOWERS,

Also EXTRA PARTS, always on hand. Orders filled promptly on a moment's notice.

W. C. RARIG, General Agent,

No. 11 Bluzome Street, near Fourth, - SAN FRANCISCO, CAL.

POULTRY YARD.

What Ailed the Hens?

EDITOR PRESS:—We put up half a dozen cans of corn last season, and they all spoiled. It was in old tins, that I think had been used, but they were bright and clean. Two weeks ago I opened a can that looked good, but the smell was a little off, and my wife decided not to use it, and we fed it to the hens and chickens. Next morning several of the chickens were dead, and the mother hens lay apparently dead, with their heads under them. Day by day for a week, one and another of our hens was attacked, till all but one that was setting, and did not eat of the corn, were taken, and all but two died after lying upon the ground nearly a week, purging considerably, without food or drink. They would walk a few steps occasionally, when their legs would tremble and they would totter down with a slight distressful noise. Of the two now alive, one is apparently well; the other, which was not attacked till about a week ago, is improving, but trembles in its legs and sits down to eat part of the time. My son thinks it is poison put out by a neighbor, but if so, the coincidence is remarkable. Our cat ate the corn with the hens, and I think also ate one of the dead chickens, and was taken like the hens, but it is now likely to recover. I had given the hens and chicks a handful of the corn the day before, and it produced no appreciable effect. What says Prof. Hilgard? They ate the corn clean, and got it only the two times.

Santa Barbara.

S. P. SNOW.

A Thriving Chicken Ranch.

Mr. A. Dunlap resides on a fine ranch of 160 acres about two and a half miles east of Hollister. In 1885, having 400 hens on the ranch, he resolved to keep account of the expense attending their keeping and of the profits resulting from the eggs and sale of the poultry. At the close of the year he found that the hens had yielded him a net profit of \$467.

On account of the result of the year's experience, he resolved at some time to go into the poultry business on a more extended scale. Last October he put this resolve into execution by forming a partnership with Mr. Ash, the object being to raise poultry, each to have one-half interest in the business.

The firm advertised for a large number of hens. They soon had bought up about 1000. They also purchased two incubators, one a Halsted, having a capacity of 250 eggs, and a Pacific incubator with a capacity of 200 eggs. These incubators have already brought them this winter over 1000 chickens, and they are still being run to their full capacity.

A *Free Lance* reporter made the ranch a visit the first of the week. Mr. Dunlap kindly showed him over the ranch so far as related to the poultry business, and explained all the details in full. As soon as the chickens were hatched they were placed in brooders. Of these there are four, each having a capacity to shelter about 100 chickens. These brooders are very simple in construction and are supplied with heat by means of a small lamp. Mr. Dunlap, however, stated that he had not found them a success. Chickens raised by their means did not do nearly as well as those raised by a hen. The percentage of loss is much greater. He now has almost discarded the brooders. At the time he fills his incubators he sets a large number of hens, who produce a brood at the same time as the incubator. The chickens once hatched, he gives each hen 25 chickens to scratch for, and the result would seem to indicate that she scratches successfully, for the percentage of loss is very small.

For raising chickens in this way he has a large number of small chicken-houses, each divided into separate apartments. In each apartment a hen is placed with her quota of 25 chickens, and she is kept there for a day or two. By that time the hen and her brood have learned to love their home, humble though it be, and after that, no matter how many similar apartments there may be, the hen never makes a mistake, but leads her young hopefuls to the same abode nightly.

In order to keep up a supply of hens to care for the chickens, a number of large boxes are provided, each having apartments for five hens. As soon as a hen "wants to set" she is given an apartment in this box with the eggs. From this she cannot escape, and is allowed about three feet of ground in the box to exercise in. She soon concludes she is there for "business" and proceeds to "set" accordingly. When her chickens come out their number is augmented from the incubator.

The hens are kept in 20 chicken-houses, separately located. The boxes are so arranged that every night when the egg gatherer drives around, by lifting up a cover, he has ready access to all the nests in each house, and gathers the eggs and places them in the cases ready for shipping without getting out of the cart. The cart is one especially devised for the purpose. It is a long affair with the seat in the extreme rear. The egg-cases, as well as the food and water for the hens, are in front of the driver.

The matter of food for young chickens is quite a serious one. They will thrive on some food, and on others they sicken and die.

When first hatched they are fed on a mixture of hard-boiled eggs and bread. Then comes a diet of rice and table scraps, and after this cracked wheat. After they have been fed on cracked wheat awhile they are able to tackle the uncracked article, and then fare the same as the older chickens which thrive on bran, middlings and ground barley in the morning and revel in whole wheat at night. The 1000 hens manage to consume a sack of wheat every night.

Mr. Dunlap states that he was able to hatch 75 per cent of the eggs set, and that since he commenced to use hens to raise the chicks, instead of brooders, the percentage of loss of the young chickens is merely nominal.

The intention of the firm is to sell off their entire lot of hens as soon as they are three years old. In order to do this their 20 chicken-houses are all numbered. Each brood has its own house, in fact a number of broods of the same age may occupy the same house, and they will occupy no other. As soon as a brood is placed in a certain house, the fact is noted on the books, and when the three years are up the brood is shipped to the city. In this way the stock is always kept graded, and no old-timers are allowed to accumulate.

Mr. Dunlap stated that his experience taught him a hen would yield a profit of \$1 a year. This estimate, of course, is based on the fact that the poultry-man raises his own poultry as well as his own feed. The firm is now in a situation where they will have to buy few or no more hens from the outside. In one house are domiciled about 100 Brown Leghorn hens. These now supply nearly all the eggs for the incubators, and by another year the ranch will be stocked almost entirely by hens of this breed.

The work of raising poultry is very light. It does not take an hour a day to feed the chickens and gather the eggs for shipment. The most work is connected with the care of the young chickens. At most, however, one man need not spend over four hours a day in caring for the stock of 3000 hens and chickens.

Mr. Dunlap has proved already that there is money in the business, and it is surprising that, with our nearness to San Francisco and our shipping facilities, more of our ranchers do not engage in it.—*Free Lance*, March 29th.

POULTRY AT THE SOUTH.—The poultry industry on the Pacific Coast to-day is ahead of everything else. In Southern California we are astonished to think that more people do not go into it. There are at the present time over 400 persons engaged exclusively in this line of business. They are all doing well and making money, but they object to their names being made public for the reason that they are afraid some one else may get a portion of their business. They are wrong in this. If 1000 persons were to start into the business to-morrow it would not be overdone. We speak whereof we know. The business of raising broilers for market is really the biggest industry of Southern California. It is ahead of her fruit, it is ahead of everything; but people are afraid to take hold of it because some person has said that some person heard of somebody that somebody believed that poultry-raising could not be made a success. Consequently they are afraid of it.—*Rural Californian*.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

A. F. JEWETT—Tulare Co.
E. B. LOGAN—Southern California.
H. G. PARSONS—Southern California.
Geo. WILSON—Sacramento Co.
J. C. HOAG—San Francisco.
CHAS. F. BLACKBURN—Idaho.
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WM. WINSTON—Amador and San Joaquin Cos.
CHAS. DUGAN—Stanislaus Co.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, term of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

POMONA AT POMONA.—Rev. C. F. Loop of Pomona has presented to that city a marble statue of Pomona, copied at an expense of \$9000 from a Grecian statue of the goddess in the Uffizi gallery at Rome. The statue is six feet high and the figure is erect. It is now on its way to New York. Sec. Windom has decided that it shall be admitted free of duty, inasmuch as it is to be a gift to the city. The statue will be set up in the public park.

PRESERVING LEVEES.—A writer in the *Sacramento Thémis*, who has been in the habit of giving close attention to the levees and thinks that greater care should be taken with these defenses against floods, urges that the levees be kept free from gophers and other burrowing animals, and that the holes they have made should be filled up, for which latter purpose he suggests the use of a fluid mortar, to be poured into the burrows by means of a funnel.

VIVID WRITING.

A little descriptive piece entitled "Over the Guns," from the *Detroit Free Press*, of which we give a paragraph, reminds us that great advertisers, like H. H. Warner & Co., proprietors of Warner's celebrated Safe Cure, might get a hint from it.

Here is the paragraph:
"Shoot to the right or left, over the guns or under them. Strike where you will, but strike to destroy. Now the hell surges down, even to the windows of the old farmhouse—now back under the apple trees and beyond them. Dead men are under the ponderous wheels of the guns, mad devils are slashing and shooting across the barrels. No one seems to know friend from foe. Shoot, slash, kill and—"

"But the hell is dissolved. The smoke is lifting, shrieks and screams grow fainter, and twenty or thirty living men pull the dead bodies away from the guns. Three hundred dead and wounded on the single acre. They tell of war and glory. Look over this hell's acre and find the latter." And in just as deadly a strife, though noiseless, are men falling at our right and left to-day. Is it war? Yes, war of the blood. Blood loaded with poison through imperfect kidney action. And is there no power to stop this awful slaughter? Yes, Warner's Safe Cure, a tried specific, a panacea that has brought life and hope to hundreds of thousands of dying men and women.

Be enlisted, therefore, in the great army of living men and women who have been rescued from disease and premature death, and be eternally grateful that the means of life can so easily be yours.

CONSUMPTION CURED.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma, and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper. W. A. NOYES, 149 Powers Block, Rochester, N. Y.

SITUATION WANTED.

Farmer, Scotchman, wants situation as manager, or place of trust on a Stock or Dairy Farm; has large experience in British Colonial and American farming, including New Zealand management of Sheep. Excellent testimonials and references. Apply "W.," Box 398, East Portland, Oregon.

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J. W. PENFIELD & SON
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Stands Unrivaled.
Send for circular and prices.

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Best constructed, easiest working, most simple and cheapest pump on the market.

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The only Tip making a Perfect Spray.
Send for circulars and prices.

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$\frac{1}{2}$ inch, 14 cents; $\frac{3}{4}$ inch, 17 cents; 1 inch, 20 cents per foot.

California Fire Apparatus Mfg Co.,
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WONDERFUL SEWING
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"It runs with a breath."

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Without a Peer!

THE POPULAR

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No. 725 Market St., History Building, S. F.

IT STANDS AT THE HEAD!

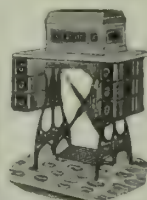
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Before Buying a Sewing Machine.

It is the leader in practical progress. Send for price list

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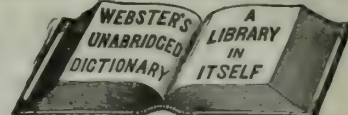
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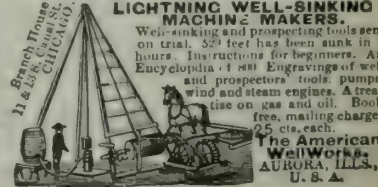
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**DR. FISHERMAN'S
Carbolized Alkaline Lotion**

For a long time, and have no hesitation in recommending it to be a medicine of great merit for stable and farm.

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This remedy is nearly 1000 per cent cheaper than any other remedy, as you get the average of half gallon for \$1.00 and two gallons for \$3.00.

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 ASK YOUR DRUGGIST FOR IT.

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PERFECT MOWING MACHINE KNIFE GRINDER.
 Can be carried into the field and attached to Mowing Machine Wheel.
 New Descriptive Catalogue Free.
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Sent by mail or express anywhere. Box of 50, \$1.25; of 100, \$2.00; of 200, \$3.50; of 400, \$6.00; preparatory pills, \$2.00.

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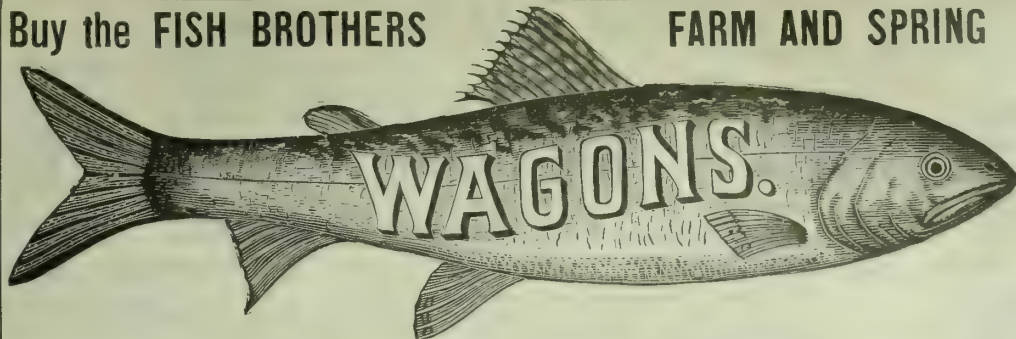
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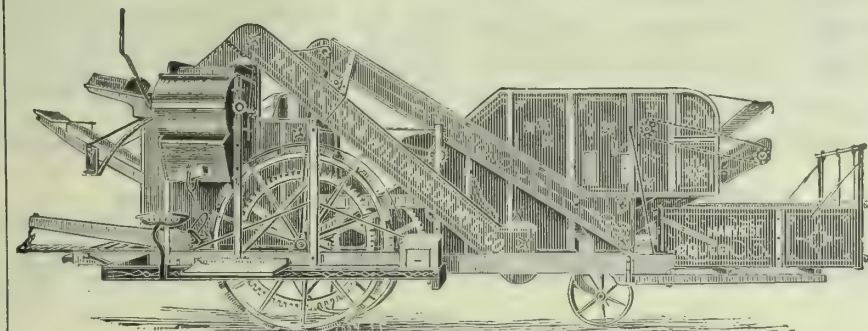
75 CARDS. 25 New 100 Home Cards, 25 Export Cards, 25 41st Edition Cards, and most Sample Book of 11000 Name Calling Cards over sent only. All only 25 cents. Send Card Works, Station 14, Ohio.

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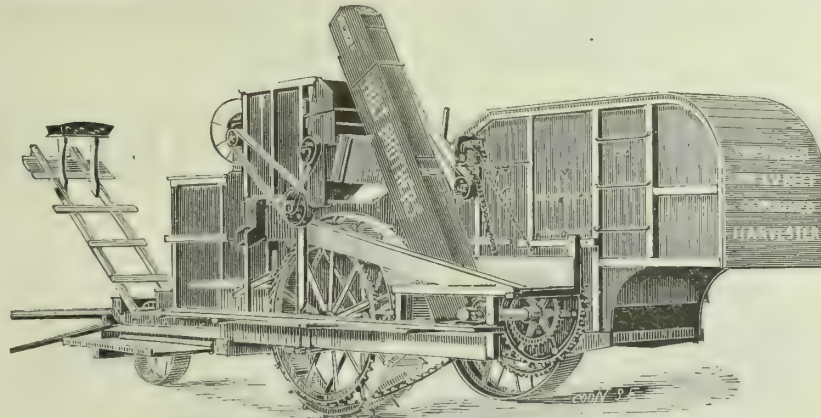
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Its Record is the Best of any now before the public.

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MATTESON & WILLIAMSON MFG CO., Stockton, Cal.**HOLT BROTHERS'
Improved Combined Harvester.**

For Efficiency, Durability, Light Draft and Fine Work It is far superior to any other harvester of the present day.

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Free Coach to and from the House.

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WIND MILL****BUCKEYE FORCE PUMP.**

The most powerful and durable
 Combination for Raising
 Water in the World.

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FAMOUS**

ENTERPRISE
 Self-Regulating
WINDMILL

Is recognized as the
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Always gives satisfaction. SIMPLE,
 STRONG and DURABLE in all parts.
 Solid Wrought iron Crank Shaft
 with DOUBLE BEARINGS for the Crank
 to work in, all turned and run in ad-
 justable babbitted boxes.

Positively Self-Regulating,

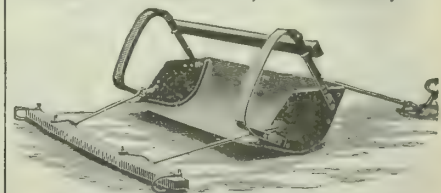
With no coil springs, or springs of any kind. No little rods, joints, levers, or anything of the kind to get out of order, as such things do. Mills in use 6 to 12 years in good order now, that have never cost one cent for repairs. All genuine Enterprise Mills for the Pacific Coast trade come only through this agency, and none, whether of the old or latest pattern, are genuine except those bearing the "Enterprise Co." stamp. Look out for this, as inferior mills are being offered with testimonials applied to them which were given for ours. Prices to suit the times. Full particulars free. Best Pumps, Feed Mills, etc., kept in stock. Address,

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This implement will take up and carry its load to any desired distance, carrying 15 to 20 cubic feet, according to dirt. It will distribute the dirt evenly, or deposit its load in bulk, as desired. It will do the work of Scraper, Grader and Carrier. Can be used with two or four horses, although best results obtained with four horses. ONE MAN ONLY required to handle this Scraper. Address.

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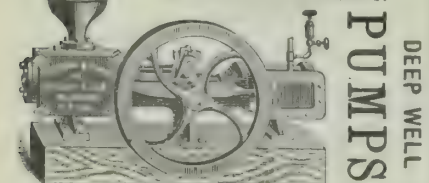
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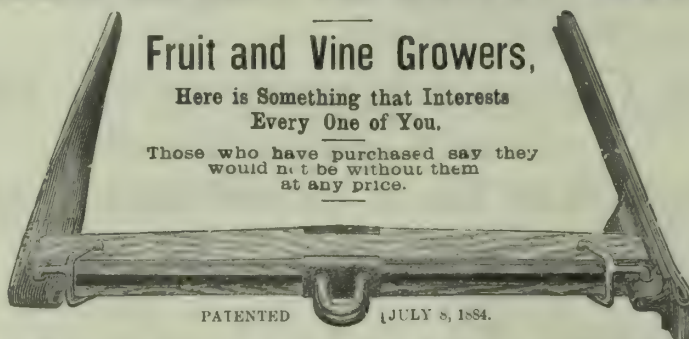
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miles from Coloma and five miles from Placerville.
The soil is a red loam, the house stands on the county
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THE VINEYARD.

Grape-Growers' Meeting.

The Grape-Growers' and Wine-Makers' Association of California met at Platt's hall, Friday evening, March 30th. About 50 gentlemen were present and H. M. Larue of Sacramento presided. C. J. Wetmore opened a lively discussion as to the best method of grafting the vine. "While the English method may be good," said he, "it requires more skill than is generally at hand, and the split graft is, I think, deservedly the most commonly used here. I use it, and nearly always with success. I saw the vine off as close to the surface as possible because my vines are seedlings. After putting the scion in I plaster the opening with clay. My neighbors generally do the same, and I do not think our successes average less than 90 per cent.

"The August method of grafting is not much practiced in this State, and I think should be more used than it is. The time to employ it is when the sap has stopped flowing—say from the end of August to the middle of September—and the ripest wood obtainable should be used. It is extremely difficult to obtain good grafters at the right time, and I think the nurserymen will soon be relied upon entirely for this work and will be engaged a year ahead. I have had about equal success with Riparias and Californicas, but have had only limited experience with Arizonicas."

Prof. Hilgard had found Arizonicas the quickest to come into condition to graft, and thought that Californicas came next. He thought it very important that it should be discovered positively in what soils and under what conditions Californicas have proven non-resistant, as they have many advantages. He thought them most certainly resistant in a heavy clay soil. He did not advise the planting of Riparia seedlings, as they are at least two years slower than cuttings, and he begins to share in the French prejudice against this stock on account of its overbearing proclivities. In his own soil it has shown decided tendency to sunburn compared with Californica.

T. S. Glaister of Sonoma thought wax or clay unnecessary in grafting, and that a strip of new calico, 6x1 inches, bound about the joint is all that is necessary.

John H. Wheeler of the Viticultural Commission stated that with several others he had been experimenting in "side-grafting," that is, making with a knife a slit that would not require any loss of a crop. W. B. West of Stockton had succeeded remarkably with this method, and he thought it had a great future. He believed that a simple cloth covering for the joint met all requirements. Leonard Coates, who is greatly relied upon for grafting in Napa valley, uses only this. He also expressed a favorable opinion of the possibilities of the Hungarian method of grafting above ground on the green stock where it is not too dry.

John S. Doyle of Santa Clara created a sensation by stating that he did not think the Italians and Chinamen who do his grafting failed in two cases out of a hundred. He could not exactly describe their method.

Mr. Wheeler and Prof. Hilgard concurred as to the brilliant possibilities of the Nova Mexicana stock, and Mr. Wheeler stated that he would be glad to furnish some roots to any gentleman who desired to experiment.

After an animated discussion as to whether there is in this State any really calcareous soil of France, Mr. C. A. Wetmore made a vigorous address against any attempt to fight phylloxera, and advised the planting of fruit or nut trees at once when it appeared in a vineyard.

Mr. Gilmore said a good word for the Muscadine grape, which is a seedling of the scuppernon and resistant, and was met with the assertion that the scuppernon had been faithfully tried in California, and would not grow.

J. B. J. Portal of Santa Clara gave his opinions as to the sulphuring of the vine. He strongly urged the use of French sublimed sulphur, not less than twice a year. The first sulphuring, he thought, should be when the vines had five or six inches, and that the second should be given after the bloom, as men passing along the rows were liable to interfere with fecundation during the blossoming period. A foggy July, he thought, might indicate a third sulphuring at certain points.

Prof. Hilgard spoke against the idea that sulphuric acid did good to the vines. The fumes of sulphur and not the acid were to be sought. Sulphur which reddens litmus paper, he considered, should not be used.

Several gentlemen made an attack upon the prevailing prejudice in favor of the French sulphur, claiming that as good a preparation is now made in California as anywhere, and that finely ground sulphur is better than sublimated.

H. W. Crabb of Oakville read a paper on the clarification of wines which was full of carefully prepared information as to this important process, and a unanimous vote of thanks was tendered him.

A motion was passed requesting the Oakland City Council to except wines from its proposed high-license ordinance, or at least all which are bottled and sold as ordinary groceries, and after this the very interesting meeting adjourned.—Call.

A New Birthday Passed.

On Saturday, March 9th, several elderly ladies enjoyed the eightieth birthday of Mrs. D. G. Howe by a dinner at the residence of her daughter, Mrs. A. T. Dewey, Oakland. Among the youngest and happiest of these dear old matrons was Mrs. Bessie Vinnicombe (aged 76), who came from San Jose to enjoy the occasion, and, as she remarked to Mrs. Dewey, make her last visit at the latter's home. Mrs. Vinnicombe was a lady of English birth and education, possessing for one of her age rare talents for painting and music. She entertained the company with several piano solos, among others a waltz of her own composing. She seemed especially cheerful and well until the Wednesday evening following when stricken with "heart failing," from which she suffered until the time of her death on the morning of Wednesday, March 20th. She leaves two daughters in California, Miss Bessie Vinnicombe and Mrs. J. Hague, a son-in-law and grandson, also another daughter, Mrs. Trehane, a former resident of San Francisco, with several sons and grandchildren in England, to all of whom she was ardently attached. Her noble heart and beautifully radiant face will linger long in the memory of those who knew her best and who wish her still happier birthdays on the brighter shores of the "Everlasting."

California Products at Chicago.

CHICAGO, April 3.—California oranges are in good supply and rule easy. Messina and Valencia also in fair supply, but Floridas are scarce. Demand just moderate, with prices as follows: California Riverside, $\frac{1}{2}$ box, \$2.75@3; do, undesirable sizes, \$2.50@2.75; California San Gabriel, $\frac{1}{2}$ box, \$2.50@2.75; California Duarte, \$2.40@2.50; California Navels, $\frac{1}{2}$ box, \$3.50; do (Washingtons), \$4.25@4.50.

California Dried Fruits.—There is a very fair demand for choice peaches, unpeeled, and they are firm with but moderate stocks on hand, and apricots also are more inquired for. All other lines rule very quiet. Nectarines and plums are very dull, while as for plums a moderate inquiry exists. Prices are as follows:

Apricots—Evaporated, bleached, bxs, $\frac{1}{2}$ lb, 10@10 $\frac{1}{2}$ c; do, sun-dried, according to quality, 6@8c; do, sun-dried, in sacks, 8 $\frac{1}{2}$ @9 $\frac{1}{2}$ c. Peaches—Evaporated, bleached, peeled, bxs, 8 $\frac{1}{2}$ @9 $\frac{1}{2}$ c; do, sun-dried, bleached, unpeeled, sks, 6 $\frac{1}{2}$ @7 $\frac{1}{2}$ c; do, sun-dried, unbleached, unpeeled, sks, 6@6 $\frac{1}{2}$ c; do, sun-dried, peeled, bxs, 10@12c; do, do, sks, 10@10 $\frac{1}{2}$ c; do, evaporated, peeled, bxs, 12@13c. Nectarines—White, evaporated, bleached, bxs, 7@8c; do, sun-dried, bleached, sks, 6@7c; do, red, evaporated, bleached, bxs, 6c; do, red, sun-dried, bleached, sks, 4@5c. Plums—New, pitted, sacks, 6 $\frac{1}{2}$ @7c; new, unpitted, sacks, 4@7c. Prunes, according to size, in sks, and dry, 5@9c; do, do, damp, 3@4c; do, Silver, 10@12c $\frac{1}{2}$; do, Hungarian, sks, 3@5c.

Raisins—Loose Muscates, new, $\frac{1}{2}$ box, \$1.35@1.50; do, London layers, new, \$1.65@2.25. Hops rule steady all round, with choice grades exhibiting considerable strength, for they are in limited supply, while of common there is no scarcity. Demand for hops is meager, so that sales are not important, and trading is at the following prices: Washington Territory, best, 22@23c; good to prime Pacific Coast, 20@21c; fair to good do, 18@19c.

Beans are ruling quiet. They are not selling with such readiness as a short time ago. No change in prices is quotable, but in some cases holders, finding that sales could not be readily made without some little sacrifice in price, have taken consignments to store. Figures which rule remain the same as heretofore, and quotations are: Lima beans, California, 5 $\frac{1}{2}$ c @ lb.

GOING ABROAD.—Leonard Coates, the well-known Napa fruit-grower and nurseryman, will start some time this month on a trip to his native land, whence he came to America some 14 years ago. He intends not only to revisit Great Britain, but also to make a tour of inspection among the prune orchards of Southern France, and will take along with him, for display abroad, a few choice samples of what grows in his adopted State, a portable little London and Paris exhibit, so to speak. If any of our readers have something especially nice to show and not too bulky to carry, we presume Mr. Coates would be pleased to add it to his compact collection.

POLLED CATTLE.—We understand that Dr. Dixon's "Argonaut" herd of Aberdeen-Angus cattle, elsewhere advertised, contains choice specimens of the most noted families, the best animals of the breed to be obtained. His herd now numbers 53 head, and stockmen, whether intending to buy or not, are welcome visitors.

REMOVAL.—We note with pleasure the removal of the Bull & Grant Farm Implement Co. to large and convenient warerooms and offices at 21 and 23 Spear street, S. F. The excellent line of tools handled by this firm well answers to the energy displayed in pushing them.

TROTTERS AT SAN JOSE.—An auction sale of fine-bred trotting stock, owned by D. J. Murphy, as well as some Clyde and Norman horses, is to be held at San Jose the 24th inst. See Killip & Co.'s advertisement.

HAGGIN'S HORSES.—Killip & Co. are having catalogues prepared of the roadsters, draft and saddle horses and Shetland ponies which are to be sold the last day of this month at the Bay District track.

THE prohibitory liquor law in Pasadena was sustained by the Los Angeles county Superior Court, to which John Senich appealed from a \$100 fine for selling liquor.

L. Prang & Co.'s Art Publications.

This Boston firm is in the lead again in fine art prints for the Easter season. Their variety is unusually large, novel and attractive, as can be seen at the display windows of our leading art and stationery stores. Unusual pains seem to have been taken in the preparation of this year's offerings, which contain striking and novel effects. It can be truly said that their art prints are daintier and more delicate than ever before, and good taste is displayed in the various forms in which they are issued, such as bookmarks, sachets, bags, portfolios, mouchoir cases, cushions, banners, as well as on handsome hand-decorated mounts and imitation ivory mounts.

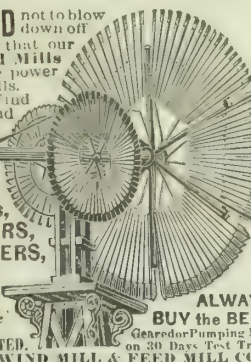
A large line of Easter booklets, most of them in hand-decorated covers, are brought out under appropriate titles and filled with the best Easter poetry.

In this connection we would call attention to the illustrated poems in decorative covers by Prang & Co., published by Lee & Shepard of Boston, which are a delight to eyes and hearts, and of lasting pleasure to minds of taste and culture. Among these are the following: "Nearer, My God, to Thee," "Abide with Me," "Rock of Ages," "My Faith Looks Up to Thee," "Home, Sweet Home," "Curfew Must Not Ring Tonight," "O, Why Should the Spirit of Mortal be Proud," and "Dora," by Tennyson.

CHANGE OF DATE.—The great combination sale of trotters by Killip & Co., advertised on another page to take place May 9th, has been put off to Tuesday, May 14th. We are told that a surprising interest in the matter has been manifested, and there promises to be a large attendance of those who admire pedigree stock at the Bay District track on the day mentioned.

TO SUBSCRIBERS.—Members of the P. of H. now receiving the regular editions of the RURAL PRESS are advised to try our Grange editions instead for awhile. The cost is the same for each edition. We will transfer names from either to the other on receiving a written request therefor.

WARRANTED not to blow down off the tower, and that our **GEARED WIND MILLS** have double the power of all other mills. **CHALLENGE** Feed Grinders, HORSE POWERS, CORN SHELLERS, PUMPS and BRASS CYLINDERS. **ALWAYS BUY the BEST** **CHALLENGE WIND MILL & FEED MILL CO.,** BATAVIA, KANE CO., ILL.



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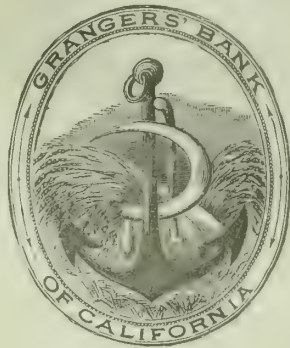
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Crockett, Contra Costa Co., Cal. Stationary Engines and Boilers, Portable Straw-Burning Boilers & Engines. IRON AND BRASS CASTINGS. Machinery of all kinds furnished at shortest notice.

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HENRY HAMILTON, Grayson, Cal., breeder of Kentucky and other fine horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENNIS & McNEAR, Berkeley, importers and breeders of thoroughbred and graded Clydesdale horses.

EL ROBLAR RANCHO, Los Angeles, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

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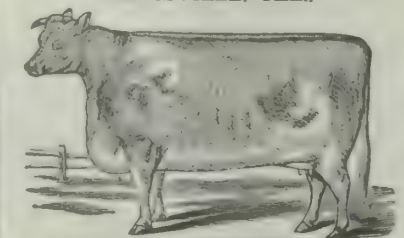


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SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with records better than 2:30, and the dam, of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 406, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son of Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:28. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Ryadyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trickett, 2:24, and Tamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, 6th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

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BARON HILTON.

No. 584 E. C. B. Stud Book.

Vol. 1, American C. B. S. B.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" case, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire beating 20 others.

First dam Whalebone (355), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 163 hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 24; he by Master George 203, by King George 190; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Tee-dale, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

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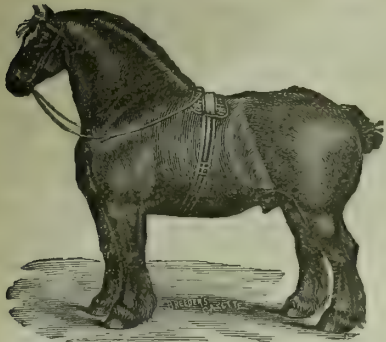
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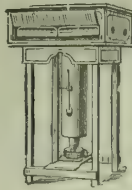
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S. F. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 3, 1889.

Trade, the past week, in general produce was quite active, with prices steadily dropping under heavy receipts. The weather continues of the most favorable character for the growing crops. This is applicable to every kind of stuff cultivated. Although the wheat crop promises to be very large in this State, values here have not shaded off much, and this, too, in the face of a falling market abroad. The following is to-day's cablegram:

LIVERPOOL, April 3.—Wheat—Firm. California spot lots, 75 1/2 d to 75 1/4 d; off coast, 36 3/4 d; just shipped, 36 1/2 d; nearly due, 36 1/4 d; cargoes off coast, steady; on passage, very little demand; Mark Lane wheat, quiet; English country markets, very slow and occasionally cheaper; French, dull; wheat in Paris, steady; Flour, firm.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Apr.	May.	June.	July.	Aug.	Sept.
Thursday....	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d
Friday.....	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d
Saturday....	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d
Monday.....	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d
Tuesday....	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d	76 1/2 d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday....	37 1/2 d	37 1/2 d	37 1/2 d	Dull.
Friday.....	37 1/2 d	37 1/2 d	37 1/2 d	Dull.
Saturday....	37 1/2 d	37 1/2 d	37 1/2 d	Very dull.
Monday.....	37 1/2 d	37 1/2 d	37 1/2 d	Dull.
Tuesday....	37 1/2 d	37 1/2 d	37 1/2 d	Dull.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

	Mar.	Apr.	May.	June.
Thursday....	99 1/2	99 1/2	99 1/2	99 1/2
Friday.....	99 1/2	99 1/2	99 1/2	99 1/2
Saturday....	99 1/2	99 1/2	99 1/2	99 1/2
Monday.....	99 1/2	99 1/2	99 1/2	99 1/2
Tuesday....	99 1/2	99 1/2	99 1/2	99 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

	Mar.	Apr.	May.	June.
Thursday....	102 1/2	102 1/2	102 1/2	102 1/2
Friday.....	102 1/2	102 1/2	102 1/2	102 1/2
Saturday....	102 1/2	102 1/2	102 1/2	102 1/2
Monday.....	102 1/2	102 1/2	102 1/2	102 1/2
Tuesday....	102 1/2	102 1/2	102 1/2	102 1/2

NEW YORK, April 3.—Wheat—88 1/2 c for cash, 88 c for May, 89 c for June and 89 1/2 c for July.

CHICAGO, April 3.—Wheat—95 1/2 c for cash, 96 1/2 c for May, 92 1/2 c for June and 86 1/2 c for July.

Foreign Grain Review.

LONDON, April 1.—The *Mark Lane Express*, in its review of the British grain trade for the past week, says: There is no demand for English wheat. Foreign wheat is depressed, owing chiefly to heavy Russian shipments. There has been a decline of 1d per cwt at Liverpool. At to-day's market English wheat was slow of sale at an average of 3s. Foreign wheat declined 6d at 1s. There was a good inquiry for fine flour. Oats were firm. Corn was rather stronger. Beans and peas were 6d lower.

Eastern Wool Market.

NEW YORK, March 29.—*Trade Street* says: Neither the demand nor values in the wool market show any change. Buyers are looking for bargains with some freedom and take more or less wool day by day for their immediate wants. Beyond this there is no activity. Stocks are very much broken, and quotations for some descriptions of wool are therefore nominal, but the general situation continues one of waiting, with stocks and demand both light. The markets are dull and quiet. Foreign supplies are relatively more active than domestic.

At Philadelphia the market continues dull, but stocks are very light for the time of year, and the slack trade has had little effect on prices, notwithstanding the near approach of the new clip.

The Boston market is not strong, but for desirable wools it is fairly steady at last week's prices. The anticipation of a change in the Treasury ruling on worsted goods helps to stiffen confidence in some quarters. The sales at Boston for the week were 1,876,700 lbs, against 1,596,400 lbs last week, and 2,695,300 lbs for the corresponding week of last year.

California Grain Bags.

The following extract from a letter, sent out from San Quentin on March 18th, explains itself: In order to give the greatest satisfaction to the people of the State, the plan of selling grain-bags direct to farmers has been adopted, and the bags will be delivered as fast as manufactured, in the regular sequence of the filing of the orders. The price of grain-bags to-day is 7 1/2 c, delivered at Jackson-street wharf, San Francisco, or on board cars or vessel for the additional cost for drayage. This offer remains open until return mail; after that, current rates will be quoted. Terms, cash; check, payable to John McComb, Warden, to accompany the order. Bags will be held, after purchase, at owner's risk, for a few days, if desired, but cannot agree to hold them later than June 15th, when warehouses will be required for storage of new stock of jute.

Miscellaneous.

NEW YORK, March 31.—The demand for honey has subsided.

The best evaporated peaches sell at 14¢ to 15¢; low grades are speculatively bought up at private terms. There is a good grocery call.

Raisins sell at full prices.

Prunes are fairly active at 6 1/2 c for small, and 10¢ to 10 1/2 c for tops.

There is not much spirit in hides, but there is enough, however, to hold up prices of all grades. Sixty-seven hundred California dry, of best weights, were sold on private terms.

Hops were slack during the week. There were peddling sales to brewers, who paid 18¢ to 20¢ for the

best State, which allowed the price to break into 16¢ to 17¢ for good grades of Pacifics. There was some run on red Pacifics at 13¢ to 14¢. The exports for the week were 560 bales.

Local Markets.

	S. S.	B. S.	B. '89.	'S. '89.	Dec.
Thursday....	142 1/2	142 1/2	144 1/2	144 1/2	144 1/2
Friday.....	142 1/2	142 1/2	144 1/2	144 1/2	144 1/2
Saturday....	142 1/2	142 1/2	144 1/2	144 1/2	144 1/2
Monday.....	142 1/2	142 1/2	144 1/2	144 1/2	144 1/2
Tuesday....	142 1/2	142 1/2	144 1/2	144 1/2	144 1/2

—New. Fold.

HARLEY.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday....	76 1/2	76 1/2	76 1/2
Friday.....	76 1/2	76 1/2	76 1/2
Saturday....	76 1/2	76 1/2	76 1/2
Monday.....	76 1/2	76 1/2	76 1/2
Tuesday....	76 1/2	76 1/2	76 1/2

BAGS—A large consignment of Calcuttas, and also of the raw material, jute, were received the past week. Other importations are due in May and June. Buyers bid 8 1/2¢ for future delivery and holders ask 8 1/4¢.

BARLEY—The market has never been in so demoralized a condition for feed as at present. Even at the low prices receipts are very heavy. Brewing has a firm tone for the more choice. On Call, No. 1 feed has been fairly well dealt in, but at lower prices. The following are to-day's Call board sales:

Morning Session: Buyer 1889—1400 tons, 84 1/2¢. Buyer season—100 tons, 72 1/2¢; 100, 72 1/2¢ per cwt. Afternoon Session: Buyer 1889—300 tons, 84 1/2¢; 100, 84 1/2¢. Buyer season—200 tons, 72 1/2¢ per cwt.

BUTTER—Receipts show a slight falling off, but the market does not improve. At current low prices packing is in order, yet dealers are not disposed to put up too much, owing to the close competition with creamery during the winter months.

CHEESE—The market still lags, with stocks accumulating.

EGGS—Continued heavy receipts have still further depressed the market. Notwithstanding the low prices, consignments from the Central States are almost a daily occurrence.

FLOUR—The market is steady, with a fair trade reported.

WHEAT—The market for sample parcels advanced the past week 1 1/2 cts per cental, but fell back slightly at the close under freer selling. The steadily dropping market abroad and good crop prospects induce selling, while the fall in charters allows shippers to buy, without materially lowering bids. In futures, trading on Call has been quite active, with a steady advance for the forepart of the week under review, and a shading toward the close. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—700 tons, \$1.43 1/2; 800, \$1.43 1/2; 1400, \$1.43. Buyer season—600 tons, \$1.42 1/2 per cwt. Afternoon Session: Buyer 1889—400 tons, \$1.43 1/2; 300, \$1.43 1/2; 300, \$1.44 1/2; 200, \$1.43 1/2. Buyer season—600 tons, \$1.42 1/2; 100, \$1.42 1/2; 500, \$1.42 1/2. December—200 tons, \$1.35 1/2 cwt.

[COMMUNICATED.]

Market Information.

Produce Receipts.

Receipts of produce at this port the past week were as follows:

Flour, qr. sks....	52,156	Middlings, sks....	5,396
Wheat, cts....	186,475	Alfalfa, "....	"
Barley, "....	33,561	Chicory, "....	221
Rye, "....	1,217	Broomcorn, bds....	58
Oats, "....	20,003	Hops, bds....	281
Corn, "....	1,632	Wool, "....	1,530
Butter, "....	1,921	Hay, tons....	2,310
do bxs....	853	Straw, "....	84
Cheese, cts....	1,109	Wine, gals....	190,870
do bxs....	113	Brandy, "....	6,080
Eggs, doz....	167,516	Raisins, bxs....	59
Beans, cts....	18,165	Honey, cs....	45
Potatoes, sks....	26,403	Walnuts, sks....	"
Onions, "....	1,902	Flaxseed, sks....	649
Bran, sks....	18,165		

Cereals.

H. Kains Jackson, writes to the *London Farmer*, March 16th, as follows: For the last couple of months we have been eating up our wheat stocks, which in granary are diminished one-fourth from what they were on the 1st of last January; and for the remainder of the cereal year, wanting a total of about 12,000,000 qrs of wheat and flour, we can see fair chances of getting just about the same quantity—should everything go on smoothly—but for any adverse circumstances, any failure of supply from any quarter, there is no provision whatever. In America, wheat is 45 per quarter dearer than it was a year ago, but we are cheaper. In Russia and elsewhere freights are much higher than before, yet wheat supplies from English farmers and other influences keep down our average price below that of last season. Foreign flour no longer undersells that we make ourselves, and yet the rate of extreme cheapness continues to be our permanent way. Country millers tell me they are having to pay 2s to 3s per qr more for wheat than in the autumn, and yet must sell flour at the same old terms. On this account the town markets are trusting somewhat to get support from country exchanges, which, say most of the local experts, are bound to be dearer. And why? Because there is always much less of farmers' wheat to sell at the end of a campaign than at its beginning. The *London Times*, therefore, when, on the 11th inst., it added to the first six months' wheat sales an equal quantity for the last six months of the cereal year, and called the total the yield of last harvest, made a decided mistake. The proportions of the year's supply may be estimated: The first six months as nine, second six months as six, or for 4 1/2 million quarters lately sold let us only expect for the next six months three millions of quarters, a fair ground for believing English wheat must moderately increase in price. From no parts abroad are better supplies to be expected than came last season, while India and America are poorer, Australia much poorer, and the Argentine Republic weaker, as is the British farmer in respect to wheat. An exception to the above rule is New Zealand,

where a good harvest affords a surplus about double the quantity shipped from the last crop. If American wheat is 45 higher, American maize is as much cheaper, compared with the rates of 1888.

In the local market wheat has held to strong prices, with some buyers reporting that to get round parcels an advance on current quotations had to be paid. There can be no doubt but the available supply in this State, for export between now and next July, is quite small. The exports from July 1, 1888, to April 1, 1889, aggregate as follows: Wheat, 538,000 tons, and flour, reduced to wheat, 91,000 tons; total so far this season, 629,000 tons. The engaged tonnage in port to load wheat has a carrying capacity of 52,000 tons, which, added to the 629,000 tons, virtually gives 681,000 tons of this season's crop out of the way. To this can reasonably be added 200,000 bbls of flour to be exported between now and July 1st, which, reduced to wheat, gives 30,000 tons. Aside from the above, it is not at all unreasonable to claim that more vessels than now on the list will be chartered to load with this season's crop. The stock of wheat here and at Port Costa on April 1st aggregated 46,886 tons, a decrease of 21,053 tons in the month of March. Interior warehouses report very small stocks.

The weather the past week was for two or three days hot and forcing, but toward the close it was cooler, with spraying weather in the mornings along the coast. So far as present information tends, the outlook for the crops is very favorable. A very large section seemed to wheat reports the plant to be thin, and that seasonable rains will be required to bring out large crops. So far as can be ascertained, the plant this year, taking all sections as a whole, is not stunting out as well as can be desired. This, no doubt, is due to its rapid growth in many of the summer-fallowed localities. Taking all the drawbacks, present and prospective, into consideration, the outlook for this year will be the largest for several years.

Barley has continued very unsatisfactory to the holding interest. Buyers are not disposed to anticipate their wants, for they still appear to be buying in a hand-to-mouth way. Even with the apparent light buying, stocks in this city are steadily decreasing. From Jan. 1, 1889, to April 1st the receipts at this port aggregated 15,920 tons, while the stock has been reduced from 43,967 tons to 37,017 tons. This shows an apparent consumption in this city and vicinity of 22,870 tons for three months, or an average of 7623 tons a month. Choice grades of bright brewing are reported to be light. The crop outlook is said to be good.

Oats, under free receipts and an offish consumptive demand, have ruled very weak and in buyers' favor. Even at the current low prices Oregon is still shipping to us. The receipts at this port from Jan. 1, 1889, to April 1st aggregated 8207 tons, while the stock only increased 51 tons, being 4421 tons on Jan. 1st, against 4472 tons on April 1st. This shows an average monthly consumptive demand at this port of 1700 tons.

Live-Stock.

Heavy receipts and a lessened consumption have broken prices still more for bullocks and mutton sheep. At the lower prices, considerable of the former is being packed. There does not appear to be any combination to control the market, and therefore each buyer for slaughtering is trying to beat the others by securing concessions. In this, sellers are giving substantial aid by free offerings. The mildness of the past season and abundance of feed have been in favor of buyers. The lambing season is said to have been phenomenal. A larger number have been dropped, while good feed and mild weather have kept them alive and given them a substantial start in life. Cows are steady at former quotations. There is more inquiry for horses, and the outlook favors better prices for work horses and driving animals. Hogs are drooping under a lessened demand. The market for dressed cattle is quoted as follows: To obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent.

HOGS—On foot, grain fed, 6 1/2¢ to 6 3/4¢ per lb.; dressed, 9 1/2¢ to 10¢ per lb.; soft, 5 1/2¢ to 6 1/4¢ per lb.; dressed, 8 1/2¢ to 9 1/2¢ per lb. Stock hogs, 4 1/2¢ to 5 1/2¢ per lb.

BEEF—Stall fed, 6 1/2¢ to 6 3/4¢ per lb.; grass fed, dressed, 5 1/2¢ to 6 1/4¢ per lb.; first quality, 5 1/2¢ to 5 3/4¢ per lb.; second quality 4 1/2¢ to 5¢ per lb.; third quality, 3 1/2¢ to 4 1/4¢ per lb.; bulls and thin cows, 2¢ to 3¢.

VEAL—Small, 5 1/2¢ to 6 1/4¢ per lb.; large, 5 1/2¢ to 6 1/4¢ per lb.

MUTTON—Wethers, 5 1/2¢ to 6¢ per lb.; ewes, 5 1/2¢ to 6¢ per lb.; lamb, spring, 9¢ to 11¢ per lb.

Fruit.

Strawberries from the Santa Clara valley came to hand the past week. Prices are drooping.

Apples are in fair demand. Eastern are well cleaned up. Consignments from the northern part of the State and by rail from Oregon are still made.

Heavy receipts of oranges cause a weak and indifferent market to obtain for poor keepers, but well conditioned suitable for filling distant orders have ready sales. Shipments out of the State show a gradual increase. As the improved freight cars for transporting green fruits deliver the fruits at the eastern distribution centers in better condition, buyers do not hesitate so much in venturing in on a consignment.

Shippers not being able to obtain lower rates of freight overland cause considerable disappointment to dried fruits.

Canned fruits are without essential change. The demand is fair, with stocks steadily decreasing. It now looks as if the market will be well cleaned up by the beginning of the new season; already the more choice grades are in light supply.

Raisins are quiet, but the market is reported steady.

Feedstuff.

Ground feed of all kinds is weak, under liberal supplies and only a moderate demand.

Hay has tended to lower figures under free receipts and dealers confining their purchases, as far as possible, to actual requirements. The heavy receipts by rail break the market more than the receipts by water, for the former has to be moved almost as soon as received, and to find a buyer concessions have too often to be made. Although the market is lower, still choice hay has not suffered to the same extent as the poorer grades. The crop outlook is still of an encouraging character. It now looks as if there will be fewer fields seeded with wheat and other small grain cut for hay than for several years past,

Corn, under more liberal supplies, is weak, a slightly lower prices. The weather is very favorable for a good crop on this coast.

In rye there is very little if any of interest to report.

At the lower prices rulling for hay, shipments by sea are increasing. The past week 238 bales were sent to Guaymas, 1796 bales to Honolulu, and 282 bales to Mexico.

Vegetables.

Garden truck is coming in quite freely, with prices shaping themselves more in consumers' favor. Peas are now quotable by the sack and asparagus by the box. Other seasonable garden vegetables are coming to hand in larger quantities.

A consignment of Snowflake potatoes from Nevada was received the past week and readily placed at from \$1 to \$1.25 per cental. Other varieties of old potatoes are in liberal receipt, with prices favoring buyers. New potatoes under heavy receipts and a limited demand are weak. With more age they will be taken for shipment. Owing to the early spring in the Central States, the demand from those States this year for early potatoes will probably be smaller than in 1888. Sweet potatoes continue to fluctuate.

Onions are in buyers' favor. The only demand reported is for the more choice good keepers.

Cabbages and root vegetables are slow. Yesterday, Tuesday, there were received over 1200 boxes of asparagus, which sent prices down with a rush. Canners bought at 75 cts a box. Canners will soon start up on peas.

Beans are barely steady. Considerable were exported the past week by water, as follows: To Honolulu 5489 lbs, and Mexico 9995 lbs. Total, 15,484 lbs.

Wool.

The market has not opened yet, but with a continued increase in receipts, buyers will soon begin to operate. The consignments received so far warrant the assertion that the clip will average better than for years, owing to good uniform pasturage and heavy rains during last month, freeing sheep from a large proportion of dirt. The loss of dirt will make the shrinkage less in scouring, and therefore make it just so much more valuable. It now looks as if prices will open higher than in 1888. In our next week's issue we may be able to give correct quotations—present quotations being for last season's wools.

Miscellaneous.

California poultry is not coming in freely, but heavy receipts overland keep prices down.

Owing to the lateness of the season, about all the wild game quotations are withdrawn.

Honey still has a firm tone. The prospects for the crop are favorable to a larger output than in 1888. In seeds, mustard is quieter. The crop prospects are good. Grass seeds are without change.

Straggling parcels of hops continue to come to hand. The inquiry is chiefly for choice to extra choice. The latter, when found, commands a slight advance over outside quotations.

From the *Commercial News* of April 3, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	206,476	257,665
On the way to neighboring ports 38,708		123,449
In port, disengaged.....	28,113	30,919
In port, engaged for wheat....	39,249	20,447

Totals.....310,546 432,480

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to April 3, the following are the exports from this port:

	1889.	1888.
Wheat, cts....	10,751,250	7,486,910
Flour, bbls....	600,480	593,887
Barley, cts....	1,246,981	635,214

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the low quotations.

WHEAT—California, April 3, 1889.

	BEANS AND PEAS.	NUTS—JOBBER.
Bayo, cts....	2 30 to 2 65	Walnuts, Cal. lb. 7 @ 7 1/2
Butter, cts....	2 30 to 3 00	do Chile, 9 @ 10
Pea, cts....	1 75 to 2 00	Almonds, hd sh. 5 @ 6
Red, cts....	2 30 to 2 50	Softshell, 12 @ 13
Pink, cts....	2 20 to 2 35	Paper shell, 8 @ 10
Large White, cts....	—	Brazil, 8 @ 10
Small White, cts....	1 75 to 2 00	Pecans, 10 @ 12
Lima, cts....	4 50 to 4 85	Peanuts, 4 @ 6
Fid Peas, cts....	2 00 to 2 10	Hickory, 10 @ 12
do green, cts....	3 00 to 4 00	Filberts, 5 @ 8
do Lima, cts....	2 00 to 2 10	

BROOM CORN. Early Rose, 30 @ 40

South'n, 70 @ 85

Northern, 85 @ 75

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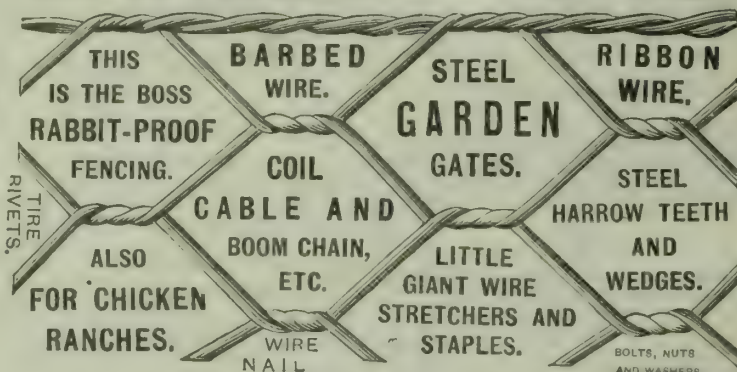
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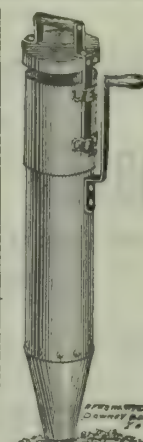
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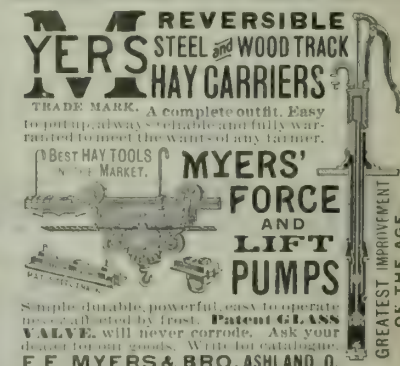
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SMOKER.This is an apparatus for
Burning Straw and
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Does away with poisoned wheat
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the ball in the cup presses back
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the Hernia is held securely day and night, and a radical
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Circulars free. **ELASTIC TRUSS CO., Chicago, Ill.**BACK FILES of the PACIFIC RURAL PRESS (unbound)
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(two volumes) \$5. Inserted in Dewey's patent binder,
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Of the leading varieties grown in California, in the market, guaranteed true to name. Also Dormant Buds of Washington Navel and Mediterranean Sweet for April Delivery. Tahiti Seedlings, one and two-year stock, in any quantity. (Our entire mammoth stock has been raised at Penryn, Cal.)

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PEACH,
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Also Monterey Cypress, transplanted in boxes and open ground; Monterey Pine, transplanted; Pepper Trees, Juniperus Pitosporus, Veronicas, Fuchsias in great variety, and a fine collection of hardy Ornamental Evergreen and Deciduous Trees and Shrubs. Eighty thousand rooted Resistant Riparia Grapes. Olives, Picholine and other varieties. Guava, two sorts. Blackberries, Kittatinny, Lawton and other sorts. Fruit and Shade Trees in varieties. Address,

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Ever offered on the Pacific Coast, including all the new varieties, all grown on new land at the above
Nursery and free from scale and other pests. Samples of the trees always on hand.

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LARGEST STOCK ON THE PACIFIC COAST.

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Wine and Table Grapes, Berry Plants, Shade Trees,
Evergreens, Shrubs, Roses, Etc., Etc.

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BARTLETT PEAR TREES

The best kind for Shipping and Canning.

General assortment of all kinds of

FRUIT and ORNAMENTAL TREES,

Including

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Also, a large stock of imported Fruit Tree Seedlings,
Apple, Pear, Myrobalan Plum and Mazzard Cherry.
A large stock of dormant buds, heavy-rooted.

Send for prices.
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FRESH and RELIABLE

SEEDS

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TESTED SEED, or anything for ORCHARD, GARDEN,
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Ferry's Seeds

D. M. FERRY & CO. are
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For 1889
Will be mailed FREE
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without ordering it. Invaluable
to all. Every person using
Garden Field or Flower Seeds
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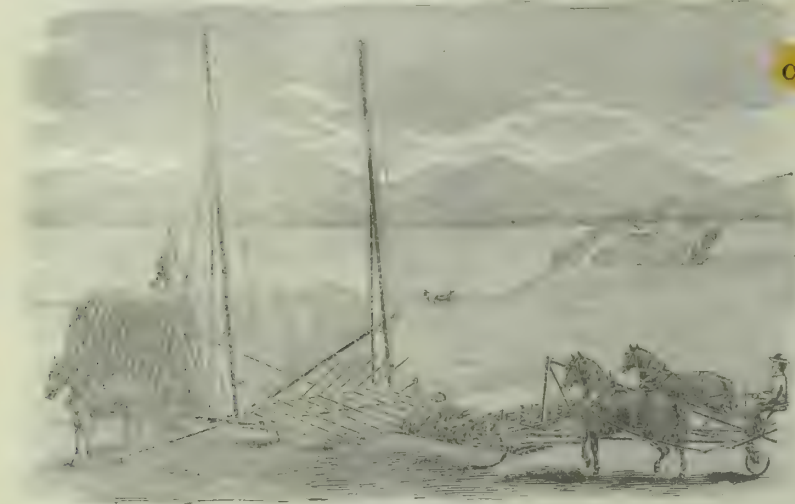
"Eclipse" Hay Stackers,

55922
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"Acme" Hay Rakes and Bucks,

IRRIGATING and HARVESTING MACHINERY,

ENGINES, BOILERS, PUMPS.



Jackson's Improved "Eclipse" Hay Stacker and Loader. Mounted on Wheels.
Weight, 1500 lbs. Price, \$100. Rakes are \$50 each.

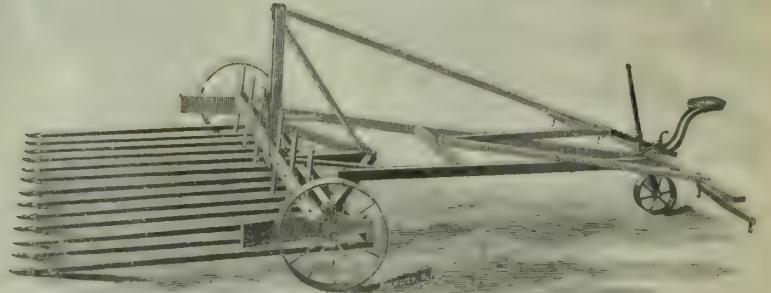
This is my standard stacker, and is, I think, an improvement on all others, as it is lighter, stronger, and dumps the hay at any desired height, instead of carrying it all up over itself, without regard to height of stack. This latter point is quite important in stacking in windy weather, as with the "ECLIPSE" the hay is only raised as high as necessary to dump it on the stack, and is not scattered by the wind. The uprights of the "ECLIPSE" are made 28 feet high, as this is as long as they can be shipped, and with them it will stack nearly or quite that high, but the height it may be made to stack is really unlimited, as these uprights may be spliced out as high as desired, and guyed with rope.

I make this machine under the "Acme" and Oliver patents. It is mounted on iron wheels, and will build a stack 25 feet high.

With the rakes the hay is taken from the swath, when cured, just as left by the mower, or from the cock or windrow, if it is desired to rake it before it is cured sufficiently to stack; and when the Rake is loaded it is driven to the Stacker, the rake-teeth entering between the pitcher-teeth; the hay is pressed forward against the pitcher-head, the horses then back the Rake off, leaving the hay in a compact mass upon the pitcher, and return to the field for another load. As soon as the Rake is out of the way, the horse attached to the pitcher rope is started, elevating the load the desired height, when the latch rope is pulled, and the hay is dropped in the center of the stack, the horse is backed up, the pitcher being brought back to the ground by its own weight, ready for another load.

The "ECLIPSE" has special advantages for stacking in windy weather, and for loading hay, etc., on wagons. It DUMPS THE LOAD AT ANY DESIRED HEIGHT, from 5 to 25 feet, while it is easily moved, quickly set, and amply strong.

WRITE
FOR
CATALOGUE.



Jackson's Improved "Acme" Rake and Buck Combined.
Weight, 650 lbs. Price, \$50.

The above illustrates my latest-improved Rake. In it are embodied all the improvements that my long experience with them in the field has suggested. They are first-class in design and construction.

They are mounted on 34-inch patent iron wheels, with 4-inch tires, and have the improved patent ratchet device, which enables the driver to EASILY RAISE the HEAVIEST LOAD without leaving the very comfortable spring seat in which he rides. The swing fence automatically discharges the load when the team backs.

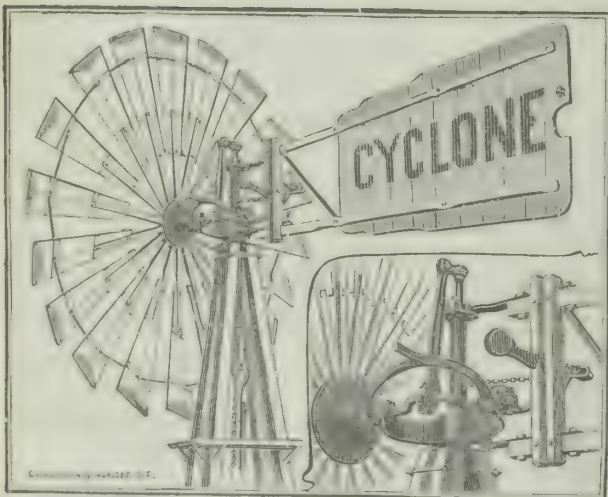
It does the work of all other Hay or Horse Rakes, viz., wire rakes, sulky rakes, revolving rakes, buck rakes and "go-devils." It rakes from the swath, and leaves the hay in large bunches at once, requiring no hand-work. One man and two horses will keep up with two mowers, following the mower as soon as the hay is wilted enough to be raked clean with any rake. It rakes CLEANER. The hay will cure quicker without bleaching by dew or sun. Very large bunches can be made by pushing two or more rakefuls into one.

If raked and bunched by my Improved "Acme" Rake, the hay is in very much better shape to reload and deliver on the Stacker evenly and level (loading the rakes all they will carry to the stack), and spreads well over the stack, saving labor in stacking, because it has not been tangled, as it is when gathered with the sulky or revolving rake. It also saves waste of leaves and seeds, and gathers the hay clean of trash, such as old stubble, stalks and lumps of dirt. Bear in mind that windrowing hay with any rake is labor thrown away, and is detrimental to the neat and most economical working of the "Acme" Hay Harvesting Machinery.

Our DANDY CATALOGUE is Ready

Those who read OUR ADS. and those of a party who CALLS HIMSELF a Competitor (WE DON'T), are invited to write for one.

OUR ONE HUNDRED AGENTS WILL BE SUPPLIED IN A FEW DAYS.



REMEMBER THIS:

We carry from 100 to 200 finished mills in stock and are NOT LIKE SOME PEOPLE who, WHEN THEY ARE SURPRISED WITH AN ORDER, run out to the Lumber Yard and BUY A FEW BOARDS; then dodge over to the Blacksmith and NEGOTIATE FOR A CRANK, etc., till the mill is ready to ship

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In the World.

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WHITE, COOLEY & CUTTS, Marysville.

J. L. STEVENSON, Reno, Nevada.

PACIFIC RURAL PRESS

TWENTY-EIGHT PAGE EDITION.

Vol. XXXVII.—No. 15.

SAN FRANCISCO, SATURDAY, APRIL 13, 1889.

{ \$3 a Year, in Advance.
SINGLE COPIES, 10 Cts.

Wild Ginger.

Another of the series of American medicinal plants described by Dr. Vasey, U. S. Botanist, is illustrated on this page. Early mention of others of the series has been made from time to time in our columns. The plant we show herewith is known as wild ginger, and botanically as *Asarum Canadense*. It is a small perennial herbaceous plant growing in rich shady woods on hillsides from Canada to the mountains of North Carolina and westward to Iowa. It is a plant of some commercial importance, for Dr. Vasey says that one firm in North Carolina purchases about 11,000 pounds per year of the roots. The engraving shows, first, the general appearance of the plant, root and leaf, the blossom and the fruit in cross-section. That part which is commonly called the root is botanically called the rhizoma, or a creeping underground stem, usually two or three inches long, and half an inch thick, giving off fibrous roots from the lower side. The extremity of the root stock sends up a pair of kidney-shaped leaves on stalks six to ten inches long. The leaves, when fully developed, are five to six inches broad, and about three inches from the base to the obtuse point. The margins are entire. The leaves and stalks, when young, are somewhat hairy, becoming nearly smooth in age. From between the leaves, close to the ground and terminating the root-stock, there issues a single flower on a drooping peduncle one or two inches long. This flower, when fully developed, is about an inch in length. It has no proper corolla, but a bell-shaped calyx divided above into three oblong, short-pointed spreading lobes, which are of a brownish-purple color inside. The lower part of the calyx is pubescent externally and coherent with the ovary, which above spreads out into six radiating stigmas. There are 12 stamens united to the base of the style, the anthers short. The flower is usually buried among the old leaves which cover the ground where it grows. The fruit is formed of the thickened, fleshy calyx and ovary, divided into six cells, each containing a number of small seeds. The wild ginger belongs to the same botanical family as the *Serpentaria*. The rhizoma or root-stock has an agreeable aromatic taste approaching that of the true ginger, and also somewhat like that of *Serpentaria*. Medicinally it is a warm, aromatic stimulant. It has been employed as a substitute for ginger in common domestic use. The leaves and flowers possess the same taste and quality as the root-stock.

RIPARIAN RIGHTS.—Word comes from Carson that on the 9th inst., in the case of the Reno Reduction Works against C. C. Stevenson, the Supreme Court of Nevada decided the law of prior appropriation of water held in that State, reversing Judge Bigelow and also the Hains-Van Sickle riparian decision of 1872. This is regarded as a highly important decision. The bench was unanimous.

THE CANNERIES in this city, Petaluma and San Jose have started work and are running on green peas and asparagus. A company has just been organized at Pasadena, with a capital stock of \$50,000, to cultivate, can and market fruit and vegetables in that vicinity. We also note movements in various other places to establish new canning plants or enlarge those already existing.

PRIZE FOR TREE PLANTING.—At a recent meeting of the directors of the Napa Agricultural Society, it was agreed that a premium of \$100 should be offered to the person making the best showing of ten trees planted on the fair grounds, between the main county road on the

A PERMANENT EXPOSITION AT LOS ANGELES. Articles of incorporation of the Industrial Exposition of Southern California were filed with the Secretary of State on the 9th inst. It is proposed to establish in the City of Los Angeles a permanent exposition for the display of all

Next Week's Convention.

Everything foreshadows a grand gathering of fruit-growers at National City next week. Local arrangements have progressed admirably, and visitors will no doubt find everything for their comfort and convenience. We have no doubt that from the welcoming address by Mrs. Flora M. Kimball to the closing remarks by President Cooper the meetings will be pleasant and profitable to all who attend.

Secretary Lelong informs us that the attendance promises to be large, and many districts will be represented. Already many have gone south to employ the intervening days in loitering around in orange orchards. The larger number will start later, so as to arrive at National City on Monday or Tuesday. It may interest our readers to know the route of travel, cost and time consumed en route. Leaving San Francisco at 7 o'clock in the evening, one arrives the next afternoon in Los Angeles. Passing the night in Los Angeles, a start is taken for National City about 10 o'clock the next morning and the destination will be reached about 4 o'clock the same afternoon. This makes nearly two days in the trip, including the stop-over in Los Angeles. The cost by rail, exclusive of sleepers, will be as follows:

Full fare, S. F. to Los Angeles.....	\$15 00
Full fare, Los Angeles to National City.....	7 50
Return, National City to S. F. (½ rate).....	7 50

Total.....\$30 00

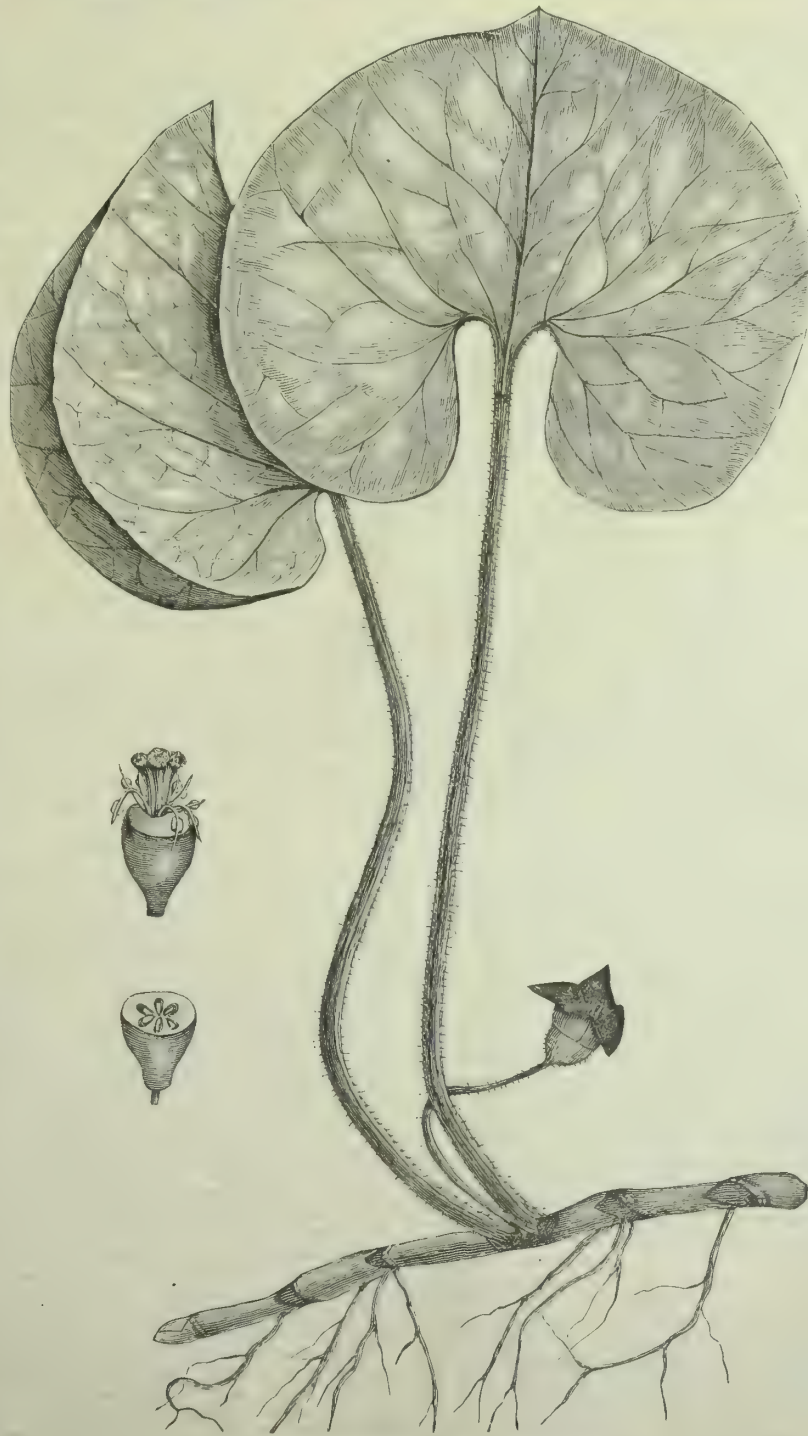
By steamer the round-trip ticket costs \$25, which is good for 30 days and includes stop-over privileges. A steamer leaves San Francisco April 15th at 2 P. M., and arrives in San Diego on April 17th, in time to reach the convention the second day.

Hotel rates for attendants on the convention have been much reduced. Commissioner F. A. Kimball writes that the Hotel del Coronado will entertain delegates at \$2 per day, the usual rate being \$3. From this hotel it will not, however, be possible to attend evening sessions. The International hotel of National City will charge \$1.75 per day, and the Hotel Brewster of San Diego \$2 per day, with two in a room, or \$2.50 per day for single rooms.

These figures will enable our readers to count the cost of a week at the south, and we advise all who can to make the investment.

THE DOG SHOW, under the auspices of the Pacific Kennel Club, is to take place in the Mechanics' pavilion in this city, May 22d to 25th inclusive. Wm. Graham of Belfast, Ireland, has written that he will start from his home in time to act as judge. E. H. Williams was appointed superintendent and Dr. Bowhill veterinary surgeon of the bench show. Eastern express companies have agreed to charge fares but one way on dogs consigned to the show, providing the ownership does not change while the animals are out here.

ACCESS TO OWENS VALLEY.—The project of building a railroad from Owens Valley to connect with the Southern Pacific system at Mohave has been stirred up again vigorously this spring. Several men of note from Inyo county have been down at Los Angeles to agitate and push things; and Mr. Mulholland, on his return to Bishop last week, reported progress to a public meeting which appears to have been highly hopeful and responsive.



WILD GINGER—*Asarum Canadense*.

east and the fence which incloses the park, according to plans fixed by Directors Taylor, McCollum and James. The variety of trees planted is to include maple, walnut, silver poplar, Balm of Gilead and any other the committee may nominate. Director Evan, who has charge of the tree planting, for which a fund was recently subscribed, is making good progress, and it will not be his fault if there is not abundance of grateful shade where it is most needed at the park.

kinds of agricultural, horticultural, viticultural, pomological, mechanical, mining, and other products of Southern California; also domestic curios and works of art, and to provide for and award premiums for the best specimens of the same. The capital stock is \$250,000.

THE SONOMA COUNTY FRUIT-GROWERS' ASSOCIATION has petitioned the Supervisors to appoint a Board of Horticultural Commissioners for that county.

CORRESPONDENCE.

Correspondents are not responsible for their opinions.

Sierra Valley and Its Resources.

EDITORS PRESS:—This valley lies east of the summit of the Sierra mountains and is 30 miles in length and from 10 to 20 miles across, running east and west. At the south end is the head of the valley, where beautiful mountain streams enter from the high snow-clad mountains on which immense bodies of timber stand, as it were, almost untouched by the lumbermen. The timber reaches down to the valley's edge, making grand and beautiful scenery.

The climate of this lovely valley is unsurpassed for health and comfort. We have no such thing as malaria, no intense heat, but the purest and balmy breeze during the warmest season. The winters are cold, but the cold is of short duration. This winter it reached six degrees below zero only for three days; the remainder of the time it has only reached freezing.

We are surrounded by the best mining districts on the coast—Sierra City, Downieville, Johnsville, Eureka, Gold Lake and Meadow Lake. All of these are dependent upon this valley for supplies, and this makes a ready market for all manner of produce—hay, grain, beef, pork, poultry, butter and eggs, and all kinds of vegetables, and good prices are always obtained.

The land is very productive; much of it is preserved in its natural grass, and abundant crops of hay are cut, baled and sold, with no labor or expense except for cutting, baling and carrying to market. Wheat, oats and barley are good crops and command ready sale at two cents per pound. Apples, plums and pears do well. Strawberries and all kinds of small fruits succeed, and what is wanted here to make this an Eden is good practical farmers—men of energy and perseverance who are not afraid of work, but are willing to put their shoulders to the wheel and never say can't.

We have climate, water, timber and soil, and now we want capital and practical farmers. Lovely homes and prosperity cannot help but reward them bountifully. Artesian water can be obtained anywhere in the valley. Eighty wells were bored last summer and splendid flows of water obtained.

There are three towns in the county—Sierraville (the largest), Loyalton and Sattley. We are 24 miles from the railroad, Truckee being our nearest point; but we expect a road here shortly connecting with the C. P. at Boca on the Little Truckee river. We are eight miles from Webber lake, ten from Independence lake and ten from Gold lake—three beautiful sheets of water filled with lovely mountain trout.

The lumber interest here is just in its infancy. There are five sawmills—one steam and four small water-power mills. The lumber sawed finds ready sale at home and in the mining camps. There are two Grange organizations in the valley, and they are in a very prosperous condition. The fair grounds and racetrack at Sierraville are indeed creditable to the association. Our schools are first class. The graded school at Sierraville would do credit to many places of greater prominence. We have two churches—Congregational and Methodist, and others at different points in the valley, all well attended.

AGENT.

Sierraville.

A Pleasant Word from Fresno.

EDITORS PRESS:—We cannot longer refrain from joining the rejoicing band in giving expressions of satisfaction and pleasure at the late grand rains, and from recording the same in the Rural for the benefit of our distant neighbors, the glorious results of the generous rains which came unattended by violent winds. There can now be seen, scattered broadcast over every part of the uncultivated area, the great profusion of beautiful and variegated wild flowers—in fact a grand panorama of the gayest vegetation. Coupled with the fragrance of the blooming orchard, the beauties of nature amount to an enchantment of the senses. These blessings, and the prospects of a bountiful grain harvest, lead us to feel that our homes and possessions are cast in pleasant places.

The time of year is now at hand for a short rest and recreation with picnics and fraternal greetings. The vineyard work is well-nigh done for the spring, the next act being sulphuring for the purpose of destroying any insect or fungus growth that the parent vine may harbor. There is also time for the orchardist to comply with the requirements of the new pest-law for eradicating the destructive scale.

Our lands east of Fresno City are coming to the front as best for the raisin-grape, being strong, heavy, loamy soil so well adapted for producing the rich amber color so desirable. Judge Wallace of S. F. is the owner of a section of excellent land eight miles east of Fresno, and he is planting 160 acres to the raisin-grape, first plowing up a fine stand of grain. He is benefiting this community by giving employment to a number of white laborers, also adding increased value to adjoining property, and will soon realize large returns from his investment. Many others are planting new vineyards, or adding to those already on a paying basis.

A. L. A.

Temperance, Fresno Co.

Cloverdale Precinct, San Bernardino County.

EDITORS PRESS:—The late rains have done us much good, but the crops would have been heavier had they come earlier. The volunteer and early sown barley will soon be ready to cut for hay.

While at the postoffice a few days ago I was informed that Alessandro is on its feet again, and this time it is to stay in an upright position. A wealthy Nebraskan is at the helm this time with plenty of capital and push to make things hum. They are now setting out trees on four miles of avenue; a Pomona company has contracted for sinking artesian wells on the tract, and the work is now under way. The hotel is again open to the traveling public, and altogether it looks as if Alessandro had at last got into the right hands.

Our valley is a treeless plain, but judging from what one of my neighbors has done, there is no necessity for it to remain so. Mr. Hoffman, living three miles east of here, put out a few acres of cottonwood slips on a timber-claim last year. They were from 12 to 16 inches long, and he simply pushed them into the plowed ground as deep as he could, and they took hold as if they were at home and many of them made a growth of six or seven feet, and this without irrigation or cultivation. He has put in a good many more this season. This is an important matter, for the question of fuel will be a serious one when our valley is filled with people, as it promises to be some time.

The plains are covered with a profusion of wild flowers and the air is filled with their fragrance. Feed is good and stock doing well. Trees and vines set out last year are bursting into leaf and blossom. Taken all in all, we have no occasion to grumble, and if we are not happy it is because we lack the elements of happiness within ourselves.

We are to have a school in our precinct soon, so as to get a school district set off here and entitle us to draw from the public funds next year.

L. S. LYMAN.

Alessandro, April 2, 1889.

Calaveras vs. Tuolumne.

EDITORS PRESS:—On my return from a trip to every nook and corner of "Old Tuolumne," I was handed the Rural of March 16th with May Blossom Davis' "How Could You" article, in which she takes me to task for unjustly misrepresenting her. As to old Tuolumne, I will more than agree with M. B. D. that the county is one of great possibilities, but if M. B. D. will take a trip through the fruit orchards of Placer she will admit that Tuolumne Co. fruit-growers have not mastered their A B C's. Here and there will be found an exception, but when it is known that the orchards are used as grass and pasture fields, my statement will not be doubted. Now I do not write this out of any feeling of hostility toward Tuolumne county, but rather to show that her record is a good one, considering the want of method employed by her fruit-growers, and, if possible, to cause them to visit the fruit orchards of Sacramento, Placer, Nevada, Sutter and Yuba counties and see to what degree of perfection the agriculturists of these sections have attained in fruit culture, and if possible grasp the possibilities of Tuolumne county.

Now let's look at M. B. D.'s complaint: "Tuolumne county is really far ahead of Calaveras both in its production of fruit and facilities for irrigation." Good for Tuolumne.

In Calaveras "irrigating ditches have caused the blossoming orchards to spread far and wide." Again, "This (Calaveras) fruit region is almost unequalled for fruit culture." M. B. D. is very ready with a rejoinder. Now turn to her article of Feb. 9th, to which I took exceptions, and claimed that she erred in fact and let her fancy lead her into comparisons with Tuolumne county unfavorable to Calaveras. I will quote her article and let the reader judge as to the facts: "Hilly, rock-crested, overgrown in sections by wild impenetrable thickets of chaparral, river worn and torn, Calaveras seems to offer but little to the farmer as a reward for his toil. Compared with Tuolumne, Calaveras county is but beginning. The orchardists of Tuolumne have combined to bring water into every highland garden. But not so with Calaveras; the uplands, hillsides, and valleys have failed to attract the attention of the fruit-grower who only saw the wild thickets, the miners' hills, and passed on to other fields. Calaveras' autumn wealth is in the tangled creek margin and black-oak forest, while in Tuolumne the fall is heralded by a rain of red and golden apples, pears luscious in their mellow perfume, grapes transparent, plums with tinge of amber and royal hue of purple. The very air is steeped in the mellowness of fruit and leaf." (Was it Tuolumne instead of Eden Adam left so hurriedly, and was it to poor Calaveras he was consigned?) "While Calaveras still remains in most sections a striking contrast to all this wealth of tree and vine unwatered and unplanted, she has gardens to be proud of in those less favored districts." (The italics are all mine.)

Tuolumne is all M. B. D. claims, but why this unjust comparison? Her article is headed "Calaveras," but she only uses Calaveras to

act as a foil for Tuolumne. I leave it to any reader of the Rural who will re-read her article in the Rural of Feb. 9th, if the impression there conveyed is other than that Calaveras is a "tangle" of "wild thickets," "hilly" and "river-worn," "unwatered and unplanted," while Old Tuolumne blossoms as a rose in her rich fragrance of budding bloom of fruitful orchards.

At Mountain Pass, four miles northwest of Chinese Camp, are the best fruit ranches in the county. Mr. J. Neighbor has an excellent orchard, while both Mr. J. H. Quinn and J. Goodwin have fine vineyards and orchards. They show the possibilities of Tuolumne. That the same results can be obtained in other portions of the county is evident by the success of some small orchards here and there in the hands of one that loves his trees and treats them accordingly.

Don't set me down as disparaging Tuolumne. I agree with M. B. D. on Tuolumne's advantages and resources, but I disagree with her in her misrepresentations of Calaveras, though her sin is rather of fancy than of fact.

As soon as I have recovered from the fatigue of my Tuolumne trip, I shall make my yearly trip to every section of Calaveras, when I shall endeavor to show what Calaveras possesses, and in that way best answer M. B. D., as nothing short of a showing of the county's resources can do it fully, when, I think, the reader will agree with me that Calaveras "may blossom" and bear fruit in quality and quantity to satisfy the most exacting.

E. H. SCHAEFFLE.

Murphys, Cal., March 25, 1889.

In Western Colusa.

EDITORS PRESS:—Eight miles west from Williams, Colusa county, the foothills make a horseshoe bend, and a gap in the hills lets in a coast breeze at 2 o'clock on summer afternoons. The land has been made by river and finished by deposits from hills. Here you strike water at 15 feet, and at 30 a four-foot layer of gravel in which you find plenty of water. To show the result of this combination, your correspondent measured growth of various trees and vines while enjoying the genial hospitality of the owner, A. B. Manor. Whenever there was more than one plant, an average measurement was taken two feet from ground:

The following trees were planted 14 years:
Mulberry, 54 inches in circumference.
Cork bark elm, 42 inches in circumference.
Fig, 34 inches in circumference.
Apricot, 34 inches in circumference.
Apple, 31½ inches in circumference.
Pear, 27 inches in circumference.
Grapes, six years planted:
Muscat, 17 inches in circumference.
Tokay, 18 inches in circumference.

A Mission vine four years old when transplanted—21 years since—is now 31 inches in circumference.

This ranch has never enjoyed irrigation, and for that reason a fine field of alfalfa was the more marked. It had made good feed for 14 years, and then it was summer-fallowed and sown with 40 pounds of seed per acre. There is now as fine a stand as you often see. Go-phers are kept out with Wakelee's wheat, which Mr. Manor finds the best of anything he has tried.

Incubator Experience.

Mrs. Manor is quite as marked a success with her Petaluma incubator, which she has used for three years with good satisfaction. She says she followed directions and has had no trouble. It is easy to see that she is very careful. When she fills her incubator, she sets as many hens as she can coax into that scheme, and adds step-children from the incubator to the family of each mother. There was no apparent difference in the feelings of the little ones, but perhaps that was because there was no one to pity the chicks and tell them they had only a cruel step mother. In cold weather they have a house with three glass sides and a big box-stove for the chickens, and they crowd around like tramps. Mrs. Manor says her daughter prefers raising with the artificial mother, and has no use for hens but to lay eggs.

To handle a setting of 500 eggs takes 40 minutes' attention every morning and evening. It takes six gallons of kerosene. It is usual to hatch 90 per cent or more of the eggs, and the chickens lost in raising are so few that nothing was said about them.

Mr. Manor thinks he is sufficiently protected from the north wind and is near enough to water to make a great success of raisins if he only had time. But what can a man do with 3000 acres?

Sites, March 30, 1889.

Licorice Again.

EDITORS PRESS:—I have read with interest the article by R. G. Sneath regarding the future of licorice-growing in this State as an article for profit. He has good reason for faith in it. The consumption annually in the United States is over 40,000,000 pounds, and the demand is constantly on the increase.

The true place to grow the root for profit in California is on the river-bottom lands that have been ruined by hydraulic mining. Land that is worthless for any other crop will raise

good licorice. I have tried raising it in the sandhills at San Francisco, and it was not a success, as the drifting sand cuts the young tender tops.

The Chinese use considerable, and their root comes from China. They prefer the long tap-roots, and they cut it crosswise into thin wafers. It is very sweet prepared in that way, and they sell it at \$1 per pound.

One hundred pounds of dried root will make 100 pounds of "licorice paste" of commerce worth from \$25 to \$28.

ISAAC LEA.

Florin, Sacramento Co., Cal.

SHEEP AND WOOL.

Wool Facts and Figures—No. 1.

[Written for the Rural Press by J. R. F.]

There are few persons, even dealers themselves, who are well informed on the different terms and expressions made use of in the leading distribution wool markets at the East, and also the kinds of wools that pass under certain grades. As the wool season is now on us, it may not come amiss to throw some light on the subject, so that the smaller, if not the larger, wool-growers may be better informed when disposing of their clip.

With the invention of machinery, many new terms have come into use which make a thorough understanding the more difficult for the uninitiated. Raw wools are used by two great classes of manufacturers; in the one using carded wools, the product is called woolen fabrics, and in the other, where combing wools are used, the goods are called worsted fabrics. The former is crossed and uneven like a spider's web, while in the latter the wool is laid exactly parallel. Only the longer can be made into "worsted." The fibers of wool to be used in the manufacture of worsted are separated from the short by combing, and the fibers for woolens are crossed by carding. Woolen goods are generally "fulled"—that is, shrunk up in finishing, while worsted goods are generally finished without fulling. The peculiarity of most worsted goods is their silky or glossy finish. A leading authority at Boston, Mass., says that "the bulk of our fine wools go into ladies' dress goods, but knit goods, cashmere shawls, overcoatings, braids, bunting, in fact a large variety of goods are made of worsted yarns. By the process of manufacture, which separates the short and weak staples, the fibers that are left are uniform in length and strength, and laid side by side; the yarn can by this method be drawn out farther, and is smooth and glossy. For any class of goods requiring to be light and strong, worsted yarns are specially suited."

In quoting sales of wool made at the East there are many terms used, chiefly among which are the following: Donskoi, Moquette, Territory, "X and above," X, XX, XXX, No. 1, No. 2, "No. 2 and coarse," washed fleece, tub-washed, scoured, unwashed, pulled, dead-pulled, combing, delaine, clothing, California spring, California fall. Donskoi wool is an imported coarse wool grown in Southern Russia. It comes in direct competition with the coarser wools of this coast. Moquette wool is a finer grade for carpet manufacture, which goes into what is known as the Wilton carpet. Territory wools are without an established character, shorn from sheep of all grades, from the common Mexican to merino. "X and above" designates wool of full merino blood, and X, XX, XXX indicates the variations in quality owing to the superior breeding, care or local influences. No. 1 designates three-fourths blood merino, No. 2 one-half, and "No. 2 and coarse" one-half to one-fourth. "Washed fleece" is used to designate wool washed on the sheep in cold water before it is shorn. The alkaline portion of the yolk by this process can be entirely removed, leaving in the fleece only the free, colorless animal oil. If the fleece by washing is not entirely freed from the color of the yolk, it is classed as unmerchantable. "Tub-washed" designates broken fleeces washed more or less by hand in tubs with soap. To make it clean and approaching scoured, warm water should be used. The fleeces as shorn from the sheep is called "unwashed wool." Scoured wools are treated to a warm alkaline bath and subsequently thoroughly rinsed in clear water until nothing remains but the clear fiber, absolutely clean and ready for manufacture.

Pulled wools are the wools pulled from pelts, and are designated from fine to coarse as follows: Extra, superfine, A super, B super, C super or No. 1. Dead-pulled are wools pulled from the carcasses of sheep that died of starvation or from other causes. Combing wools are generally from English blood, such as Cotswold, Leicester and other bright-haired wools, and also all long fibered wools that are used in the process of combing. In this country, the long wools containing from one-quarter to three-eighths full blood are called combing wools. Delaine wools are wools of the merino blood. All combing wools which have a remote cross of merino are called delaine wools. Clothing wools are all short fibered wools that can be prepared for spinning into yarn by first being carded on a carding machine. They are practically wools of any kind whatever having a more or less remote merino cross that can be carded and then combed and used on worsted machinery. California spring and California fall wools are terms used to designate six to eight months' wool and when shorn.

In this connection it may not be out of

place to note the origin of the terms "combing," "delaine," and "clothing." Originally, nothing was made into wool-top except the long-fibered, when the combing was done by hand. Subsequently improved machinery admitted of the use of shorter wools of finer quality, having a more or less remote cross of merino blood, which were given the name of "delaine," so as to designate them from the combing. They were manufactured into a class of goods called "delaines." Wools still shorter in staple, which could not be used in manufacture, were called "clothing wools." Now, by improvements in machinery, the shortest clothing wools can be used by worsted machinery, so that former designations are losing their importance, as are also long-stapled wools known as combing. To illustrate the advance made in wool machinery, the *United States Economist* mentions the exhibition of a combing machine at the Antwerp Exposition in 1885, which made an excellent article of wool-top out of a short-stapled burry Mestizo wool. So burry was the wool before combing that it might with propriety have been called woolly burs. The machine made of this article a very superior wool-top. The latter term is applied to highly purified scoured wools that have had the inferior particles or noils removed by a process of combing. Wool-tops can be manufactured into any kind of woolen goods.

In purchasing wools, all buyers figure on the probable shrinkage in weight after scouring, before the final scouring for the machine. On this coast it is quite difficult to give any set rule for arriving at the percentage of loss in weight, owing to the different soils, climate and feed. The following will afford as correct an idea as to the loss in percentage as can be obtained. Unwashed merino wools shrink from 50 to 80 per cent in weight. Most unwashed wools shrink about 50 per cent. The light, open, coarse, unwashed wools of the carpet class lose in weight from 25 to 45 per cent. Fine full-blooded merino (not bucks) wools lose in weight from 60 to 80 per cent. Cross-bred lose from 50 to 70 per cent. Scoured wools, as usually manufactured or as scoured for sale, yield from 85 to 90 per cent of scoured wools in rewashing ready for the machine.

The fact must not be lost sight of by wool-growers that the high cost of transportation from this coast to the Eastern markets has contributed no little in aiding the revolution now going on in the wool trade of this city. Formerly, very little scoured wools were sent to the East; but as sorters or graders became more expert in assorting the various grades of wools so that they could be depended upon by Eastern manufacturers as correct, scoured wools gained in reputation at the expense of the unwashed. Last year it is estimated that 30,000,000 pounds of wools on this coast were scoured before shipping, and as the average loss in weight was 60 per cent, the gain in transportation was quite an item, as the scoured wool weighed only about 12,000,000 pounds.

In this city, about every grade and condition of wool is marketed, which in its unwashed state and from these conditions have arisen special descriptive terms. "Dead wool" is that which when squeezed in the hand will not expand much when loosened; but "lively wool," on the contrary, will expand to about its original size. The latter, all else being equal, commands the most money. Dead wool shows an impoverished condition of the sheep. Sheep after shearing and running on poor pasture for three or four months, have wool dry, harsh, and more or less dead; but when put on good pasture the sheep's condition improves and the new growth of wool shows a corresponding improvement, but the first growth does not, so that between the two there is a decided difference, which is marked by the staple being rotten where the two join. This kind of wool is hard to sell. Owing to improvement in machinery, burrs, seeds, etc., are not now so great a drawback as in former years; still wools with such defects do not command so much money. The novice in handling wool can determine its fineness, and to a great extent its breed, by holding a few of the fibers up to the light and separating each. The strength of the staple is tested by partially separating the fibers and pulling them.

THE APIARY.

Subduing and Handling Bees.

EDITORS PRESS:—Many persons would be glad to commence bee-keeping were it not for a natural dread of being stung. The stings of bees were given them for the protection of their stores, and they are seldom disposed to sting unless they are in danger. Bees under any circumstances cannot resist the temptation to fill themselves with liquid sweets, and with their honey sacs full they never sting unless they are injured. They also, on being alarmed, immediately rush to their combs and gorge themselves with honey. It will therefore be seen that to make bees harmless it is simply necessary to frighten them into gorging themselves with honey, when they may be handled with impunity. This may be effected in various ways, the simplest of which is to blow into the hive a few puffs of smoke. Brown paper, rag or decayed wood answer the purpose; but care should be taken not to stupefy the bees by giving too much. One of the best smokers for this purpose is that known as

"Clark's cold-blast smoker," which will burn for hours when fed at intervals with any of the materials above described.

After allowing the bees a few seconds to gorge themselves from their stores, the hive may be opened and a few puffs of smoke blown in at the top of the hive. Take hold of the first frame by the projecting shoulders and carefully lift it out of the hive without crushing a bee (We should bear in mind that a single bee bears much the same relation to the colony as does one of our fingers or toes to us. If somebody carelessly or purposely pinches a toe or finger, self-preservation demands that we make him stop; and if you crush a bee, the whole hive remonstrates and threatens. In fact, they do this if you only give them reason to think they may be in danger of injury.); raise the frame to the level of your face and examine it. When one side has been examined, lower your right hand and raise the left until the top bar of the frame is perpendicular; now give the frame a half turn toward the right, lower the left hand to raise the right so as to bring the top bar to a horizontal position. This will reverse the comb and enable you to examine the other side. Care should be taken to keep the comb perpendicular, or it is liable from its weight to fall out of the frame. It can now be placed on a stand or in a comb box and the other frames examined in like manner. In replacing the frames, do it slowly so as to allow any bee upon feeling the slightest pressure to creep from under them before being injured. When the frames have been returned to their proper places, blow a little smoke on top and replace the cloth or honey-board. During the examination, give the bees more smoke occasionally to keep them under subjection.

When the smoker is not in use it should be placed on end; the tube, acting as a chimney, causes sufficient draught to keep the fuel smoldering. A bee-veil to protect the face will give the bee-keeper more confidence, and should always be used by any one unaccustomed to handling bees. Some timid persons wear rubber gloves to protect the hands; but our experience is that they are entirely unnecessary when the above instructions are carefully followed.

WM. STYAN.

San Mateo.

ENTOMOLOGICAL.

Experience with Insecticides and Tonics.

EDITORS PRESS:—I read with much interest in your issue of March 23, Dr. Gally's article on "Buds, Bugs, Beets and Bark." In Washington Territory, where I formerly resided, I carefully watched the depredations of the louse and other insect enemies of the fruit trees. Five years' careful observation and practical experiments lead me to fully agree with the writer in all he says, especially the value of the ladybug in the orchard as an enemy and destroyer of the tree louse. While these bugs destroy thousands of tree lice, their work is so slow that they make but small inroads against the enemy. Ants also feed on some varieties of the tree louse, and I have also in the spring and early summer observed a flying insect resembling a small yellow wasp lighting upon the upper and extreme limbs and rapidly seize the common louse until the twig would be depleted. These insects may be seen in swarms about a lousy tree. I have experimented with all the washes and spraying emulsions, and succeeded admirably in killing the tree or greatly injuring it, when the liquid was strong enough to kill lice. This is especially true with the use of tar, coal oil, etc.

The only really valuable wash I ever used was an emulsion of soap and capsicum (red pepper), say a common bar of soap to 12 quarts of water, and the pepper, one ounce or more, stirred in when hot. The whole should be a creamy paste thin enough when cold to be easily put on with brush or swab—I had no experience with the California scale—but this wash will oust all other enemies of the body and limbs of the fruit trees, prevent the ravages of the borers, and rabbits will never give your tree but one bite. This never can harm the tree and might make the scale let go.

Of all things I have ever used to revive old sickly trees or young ones for that matter, the best I found was the free use of copperas (sulphate of iron). My first experiment was about seven years ago, with a sickly pale-leaved two-year-old apple tree. I dug a narrow trench around the tree just at the extremity and carefully down to the small fibrous roots, in which I distributed about two ounces of pulverized copperas, placing the earth back and thoroughly stirring the ground about the tree. This tree was lousy. This was done early in spring, and at the time the fibrous roots began to shoot out their white feeders. The result was astonishing. In six weeks this was the richest foliated tree in its neighborhood, and to my surprise it was also free from lice. The copperas is at once taken into the circulation, and I suppose makes the sap distasteful and destructive to sap-sucking insects. I followed this up on other and older trees in like manner and with increased amounts of copperas, sometimes two or three pounds to an old lousy tree. Right here I learned a beautiful and instructive lesson of the life circulation of trees. I have put it in one side of a lousy pale tree with the result of brightening one-half of the tree while the other remained pale and lousy.

It can do no harm, but on the contrary makes bright fruit and fertilizes and invigorates the tree. This work to be most effective should be done so as to be ready for the first flow of sap, though I have found it showing good effect later on in the season. You will never lose your labor, for the iron will remain in the soil and distribute itself ready for the next fall or spring flow. If put on later in the summer, it is likely to induce too vigorous fall growth.

In solution of copperas I have soaked corn and other seeds with fine results.

Indigging around the trees, one will first have to make an experimental hole to ascertain the distance and depth of the fine roots. First dig to them and be careful not to injure in circling the tree. I would never even set out any fruit tree without putting around the roots a good supply of copperas. It more than takes the place of old scythes, horseshoes, rusty nails driven in, or even the coal cinder and iron scales from the blacksmith. Do you remember these things so persistently kept around and hung in the crotch of grandpa's trees years ago? Many old sorry orchards are so hungry for the iron the soil has ceased to furnish that if you should drive into their bodies a big rusty nail, it would be devoured in an incredibly short time. The copperas should not cost at retail over six cents a pound, which would be high. Try it on your meanest tree or sickly vine.

Oakland, Cal.

W. C. POTTER.

THE PUBLIC LANDS.

The New Land Law.

The Register of the Land Office has received a copy of the new Act of Congress, approved March 2, 1889, affecting settlers on public lands. It is as follows:

Be it enacted, etc., SECTION 1. That from and after the passage of this Act no public lands of the United States, except those in the State of Missouri, shall be subject to private entry.

SEC. 2. That any person who has not heretofore perfected title to a tract of land of which he has made entry under the homestead law may make a homestead entry of not exceeding one-quarter section of public land subject to such entry, such previous entry or filing to the contrary notwithstanding; but this right shall not apply to persons who perfect title to lands under the pre-emption or homestead laws already initiated; provided that all pre-emption settlers upon the public lands whose claims have been initiated prior to the passage of this Act may change such entries to homestead entries and proceed to perfect their titles to their respective claims under the homestead law notwithstanding they may have heretofore had the benefit of such law; but such settlers who perfect title to such claims under the homestead law shall not thereafter be entitled to enter other lands under the pre-emption or homestead laws of the United States.

SEC. 3. That whenever it shall be made to appear to the Register and Receiver of any public land office, under such regulations as the Secretary of the Interior may prescribe, that any settler upon the public domain under existing law is unable by reason of a total or partial destruction or failure of crops, sickness or other unavoidable casualty, to secure a support for himself, herself, or those dependent upon him or her, upon the lands settled upon, then such Register and Receiver may grant to such settler a leave of absence from the claim upon which he or she has filed for a period not exceeding one year at any one time, and such settler so granted leave of absence shall forfeit no rights by reason of such absence, provided that the time of such actual absence shall not be deducted from the actual residence required by law.

SEC. 4. That the price of all sections and parts of sections of the public lands within the limits of the portions of the several grants of lands to aid in the construction of railroads which have been heretofore and which may hereafter be forfeited, which were by the Act making such grants or have since been increased to the double minimum price, and, also, of all lands within the limits of any such railroad grant, but not embraced in such grant lying adjacent to and coterminous with the portions of the lines of any such railroad which shall not be completed at date of this Act, is hereby fixed at \$1.25 per acre.

SEC. 5. That any homestead settler who has heretofore entered less than one-quarter section of land may enter other and additional land lying contiguous to the original entry, which shall not, with the land first entered and occupied, exceed in the aggregate 160 acres without proof of residence upon and cultivation of the additional entry; and if final proof of settlement and cultivation has been made for the original entry, when the additional entry is made, then the patent shall issue without further proof; provided, that this section shall not apply to or for the benefit of any person who at the date of making application for entry hereunder does not own and occupy the lands covered by his original entry; and provided, that if the original entry should fail for any reason, prior to patent, or should appear to be illegal or fraudulent, the additional entry shall not be permitted, or if having been initiated shall be canceled.

SEC. 6. That every person entitled, under the provisions of the homestead laws, to enter a homestead, who has heretofore complied with, or who shall hereafter comply with the conditions of said laws, and who shall have made his final proof thereunder for a quantity of land less than 160 acres and received the Receiver's final receipt therefor, shall be entitled under said laws to enter as a personal right, and not assignable, by legal subdivisions of the public lands of the United States subject to homestead entry, so much additional land as added to the quantity previously so entered by him shall not exceed 160 acres; provided, that in no case shall patent issue for the land covered by such additional entry until the person making such additional entry shall have actually and in conformity with the homestead laws resided upon and cultivated the lands so additionally entered, and otherwise fully complied with such laws; provided, also, that this section shall not be construed as affecting any rights as to location of

soldiers' certificates heretofore issued under Section 2306 of the Revised Statutes.

SEC. 7. That the "Act to provide additional regulations for homestead and pre-emption entries of public lands," approved March 3, 1879, shall not be construed to forbid the taking of testimony for final proof within ten days following the day advertised as upon which such final proof shall be made, in cases where accident or unavoidable delays have prevented the applicant or witnesses from making such proof on the date specified.

SEC. 8. That nothing in this Act shall be construed as suspending, repealing or in any way rendering inoperative the provisions of the Act entitled "An Act to provide for the disposal of abandoned and useless military reservations," approved July 5, 1884.

THE IRRIGATOR.

The Government Surveys.

At the last meeting of the State Board of Trade, W. H. Mills spoke of the recent Arid Land and Irrigation Act of Congress, which provides for surveys, etc., leading to the redemption of the arid regions of the Western States and Territories. He spoke of the appropriation of some \$3,000,000 for this work and of its great value to all the West, as well as the entire country. The land policy of the country was considered briefly, and the speaker closed by introducing State Engineer Hall.

Mr. Hall has been in Washington lately and has interested himself in this arid land survey project. He gave a history of the bill and commented upon the value to the Territory interested. The plan, in the judgment of the speaker, is the beginning in carrying out the new land policy demanded by the necessities of the country at present. While in Washington he learned that the unappropriated Government land now remaining is surprisingly small. His investigations have shown him that the arid regions of the United States amount to fully 1,300,000 square miles. Of this, fully 15 per cent is mountainous and not irrigable. A large part of the remainder can be irrigated by arrangement of a proper and systematic storage-reservoir system. The committee on the new public-land policy appointed by Congress is regarded as one of the most important appointed since the war. Senator Stewart is chairman, and Senators Allison, Hiscock, Gorman and Plumb are members of the committee. The speaker commented on the fact that the representatives of New Mexico, Nevada and the Western Territories have been urgent in claiming a part of the appropriation and the services of the assigned engineers, but that California had done very little. He urged the need of the State Board or some other body taking the matter up.

Mr. Mills said that he had already interested himself in the work spoken of, and had called the attention of the Geological Survey to the demand of California. On March 24th Mr. Huntington sent dispatches to Major Powell, of the Geological Survey, and to Senator Stewart. These dispatches called attention of the persons addressed to the mountainous region on the west side of the San Joaquin valley, which, it was said, was of little or no value, owing to the lack of water.

The following resolutions, presented by Gen. N. P. Chipman, were adopted:

Resolved, First, inasmuch as the exceptional climate of California, offering not only unusual charms for physical existence, but being of the highest economic value, is attracting universal interest throughout the Union; and inasmuch as there are large areas of rich and productive lands in our State capable, with irrigation, of wonderful results, as Fresno, Riverside and other tropical regions amply testify, we invite the attention of the eminent authorities in charge of the surveys in question to an early inspection of our State.

Resolved, Second, that our delegation in Congress be requested to exert its influence toward securing the most complete examination of our State, and showing its need of some general and comprehensive system looking to the irrigation of large tracts of land incalculably valuable with water, but of little value without.

Resolved, Third, that in our judgment the Government ought to attach to its corps of surveyors and engineers the most competent engineer to be found upon our coast, familiar with its topographical resources and needs, and we ask our Congressional delegation to secure, if possible, the selection of some such person to represent the region west of the Rocky mountains, and if possible, to conduct the survey of that region.

Copies of these resolutions were ordered sent to Major Powell and to the various Congressmen.

COOKE'S SCHOOL ENTOMOLOGY.—The *Record-Union*, mentioning the Governor's approval of the bill appropriating \$15,000 for the purchase of the copyright of "Cooke's School Entomology," remarks that this sale will prove quite an assistance to his widow, an aged and most estimable lady. The State Printer says the Legislature, while it purchased the copyright, failed to make an appropriation for printing the books, and, as a consequence, it will be two years before the State can publish them. The book now sells for \$1.50, but the State Printer says he can get it out equal to those issued by Banoroff, and with better binding, for 45 cents. He regards it as a good purchase.

The first religious newspaper ever issued was the *Herald of Gospel Liberty*, which was published by Elias Smith of Portsmouth, N. H., in 1809.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

San Jose Harvest Feast.....April 13
North Butte Harvest Feast.....April 13
Sonoma Co. Pomona, Grange hall, Santa Rosa, Apr. 17
Tomball Harvest Feast.....April 20
Watsonville Harvest Feast.....April 20
Enterprise Reunion.....April 20
Yuba City Grange Picnic.....May 14
San Joaquin Co. Pomona, Lodi hall, Lodi.....May 25
Bennett Valley Picnic.....May 25
State Grange, Sacramento.....Oct. 1

Oregon.

Lane Co. Pomona, Mt. Holly Grange.....May 4
State Grange, Salem.....May 28

Harvest Feast at Lodi.

From a stenographic report of the Lodi Grange Harvest Feast, April 3d, sent us by a good brother from Stockton, we learn that Stockton Grange sent quite a visiting delegation. Addresses were made by Worthy Master Overhiser of the State Grange, Bro. E. G. Williams, Overseer of Woodbridge Grange, Bro. Barber and Sister Alling of Stockton, Bro. and Sister Hogan, Sister Allen, Bros. Anderson and Norton of Lodi.

Bro. Norton was happy to say Lodi was improving. They were going to get more young members. He did not mean to reflect on the older ones, for they were wanted; but young people infused new life, by music and in various ways. He knew of several young persons he could induce to join. He might have done so before, but felt the Grange was too dead, and he would be blamed by them. Now he felt differently. They were not dead, and would never die if they got enough young people to join them and made their meetings interesting enough to retain them.

All the speakers favored social gatherings and Harvest Feasts, and Bro. Barber attributed the fact of his being in the Order to-day to his attendance at a Woodbridge Harvest Feast. He had about made up his mind to drop out four years ago, when he went there and had such a good time he concluded to stop awhile longer. He had not left and did not intend to.

Bro. Alling of Stockton Grange read a communication which his wife had received as one of the Committee on "Woman's Work," which was published in the Rural Press of March 30th, and commented on the same.

Originated in California.

Bro. W. L. Overhiser said: The brother has just read a communication from Sister Hale of Connecticut, and he wonders how it is that it came so far. Now I am about to tell you something perhaps that will surprise you and make you feel a little proud of California. As the schoolbook says,

"Large streams from little fountains flow,
Tall oaks from little acorns grow."

Last fall we had a meeting of the State Grange down in Tulare. Many of the members said we would not get a quorum. Right there in that State Grange this "Woman's Work" was organized. Sister Roache of Watsonville made the proposition. I had the distinguished honor of appointing the first Committee on "Woman's Work." Your representative at the National Grange spoke of it there among the sisters. They called a special meeting among themselves. This was planned, and now it has grown to be a national proposition, and every State in the Union is receiving this communication. Now then, the worthy brother wonders how this sister found out his wife was on a committee of this kind. Why, it traveled. These things travel, and I hope every member in this hall will be able to take Sister Hale by the hand next fall at the National Grange, and they will find her a lovely, worthy, very worthy sister.

Bro. E. G. Williams, Overseer of Woodbridge Grange, after thanking Lodi for their generous reception, said: What the Worthy Master of Stockton Grange has just read in regard to "Woman's Work in the Grange," and the remarks of the Worthy State Master as to where and how it started, go to show what one idea may bring forth. It started from Sister Roache of Watsonville, and it has passed from one side of the continent to the other. I wish the brothers and sisters who are in this hall to day to bear this in mind. One idea from the most humble member of the Grange oftentimes grows to be a powerful thing.

TULARE GRANGE.—Bro. A. J. Wood was appointed by Tulare Grange to lead the discussion concerning the purchase and manufacture of grain sacks, at the first meeting, Saturday, May 4th.

EDEN GRANGE, we learn, is progressing, having recently instructed two new members.

From Temescal.

As Temescal Grange had for visitors Bro. R. M. and Sister Sara T. Edwards, late of Colorado, they were invited to start the remarks for "Good of the Order." Bro. Edwards responded, he said, merely to set an example, he believed everybody should say or do something at every Grange meeting. Such a course would prevent dormant Granges. Each one should be brief, so there should be no monopoly. If we rely upon one or two to do all the speaking, we lose a part of the education which the Grange is intended to give. There should be no dead weights. If members did not come, and failed to pay dues, drop them from the roll. Have only live members, and our meetings will never become dull nor uninteresting.

Sister Edwards thought a recitation would be better relished than a speech, so she recited "The Deacon's Confession."

Bro. A. T. Dewey eulogized the work which Bro. F. B. Logan was doing in reorganizing Granges. He had given him the names of those connected with Napa Grange and sent him there to see if he could not resurrect it. His success had been such that he had just received a letter from him asking him to send a Deputy next Saturday (April 13). Bro. Webster had commended Bro. Logan's work. The southern counties of San Bernardino, Ventura, Los Angeles and Santa Barbara would probably feel good effects from his work. He believed in reorganizing in the strongest places first and leaving those places where there was but a weak constituency to support them unto the last. He read the suggested program for the Deputies' meeting April 11th, as published in the Press, and asked for remarks or further suggestions. He anticipated a fair attendance, and invited Temescal to send a good delegation. He called on Bro. Renwick, the W. O., as he was Deputy from Alameda, for suggestions.

Bro. Renwick agreed with the speaker, and thought it important to establish Granges where they could be sustained. Often Deputies gather a few good workers and start a Grange; but it does not exist, because men join with false notions, thinking they can make \$20 for every \$5 which they invest. When they find out their mistake, they become disgusted with the Order and consider the Grange dull. Those who join now know better, and our Granges are surer of permanency. He thought farmers should not be partisans, but endeavor to secure beneficial legislation. This was better than mere monetary considerations.

Bro. Dewey invited the members to attend the Oregon State Grange, May 28th. The lowest rate for a round-trip is \$30, or \$33 with berths on the second-class Pullman (express). He had the names of about 20 who expected to attend. He thought those who went would thoroughly enjoy it. Much of his remarks was of a nature which cannot yet be made public.

Worthy Master Goodenough called attention to the Worthy Lecturer's program. The subject for this month was "Picnics Illustrated."

Sister Dewey explained that her idea in choosing this subject was to provoke discussion as to the best methods of holding May picnics.

Bro. Dewey said one of the most successful of Temescal picnics was a union affair held with San Jose and Eden at Alvarado. He thought a picnic at the same place, with the same Granges, would be pleasant, and it might lead to a revival of Centerville Grange. He moved that the Secretary be instructed to communicate with Eden and San Jose, asking if it would be agreeable to hold such a picnic between the first and middle of May, so that those who wished to attend the Oregon State Grange should not be deprived of the pleasure of attending.

Motion prevailed.

The Worthy Master appointed Bro. A. T. Dewey, vice Bro. John Payne, on the Finance Committee.

Harvest Feast at Temescal Grange, I. O. O. F. hall, Franklin and Eleventh streets, Oakland, Saturday, April 20th, at 10 A. M. The third and fourth degrees will be conferred. While a special invitation has been forwarded to the members of Eden Grange, no worthy Patron will be turned away. A hearty welcome awaits all Husbandmen and Matrons who may come.

Able speaking and interesting exercises by the young members of Eden and Temescal Granges can be expected.

FROM FLORA.—A letter to the Secretary of the State Grange gives us noble and encouraging words from Sister Pauline Newkom, who we believe will now feel able to give more attention to Grange work than latterly, since the death of her devoted brother. We hope to receive some local

notes from Yuba City Grange, as well as other correspondence from her pen, for the benefit of our readers; also that her promise to visit Temescal Grange will be realized, with pleasure to herself, as it certainly would be to the Grange.

From a Live Grange and Lively Deputy.

MESSRS. EDITORS:—We are beginning to gain a little ground, and I believe we will hold it. Feel much elated in reinstating some charter members who have not been with us for 12 years, among the number the first Master of our Grange, J. McCollum, a zealous, able Patron. Through the kindness of the local editors, we are succeeding beyond our expectations in creating a healthy public sentiment in favor of the Grange, and people are asking what the Grange is, and what its object. Have a second class started, and, as soon as the first receives the fourth degree, will make another personal canvass. To stimulate some other members to action, the following notice will appear next week in all the local papers:

Do You Know

That to the first person getting up a bona fide and eligible class of five new members for Watsonville Grange, its Worthy Master offers as a premium, for one year, the California Patron, the monthly official organ of the California State Grange; to the first one procuring an eligible class of fifteen new members, the Pacific Rural Press, the weekly official organ of the State Grange, the best, cleanest and most progressive agricultural and family paper in America? To the first person procuring an eligible class of ten new members, the Worthy Lecturer of the above Grange offers a year's subscription to any one of the local papers. A. P. ROACHE.

Watsonville, April 8, 1889.

Picnic at Bennett Valley.

MESSRS. EDITORS:—Bennett Valley Grange is still prospering. Although we have no new members joining us, yet we have our regular meetings, which are always well attended and interesting.

At our last meeting, a committee was appointed to make arrangements for a picnic, to be held in the grove, at the Grange hall on the 25th day of May, to which all Patrons and their friends are invited.

The fields of grain in the valley are looking fine, fruit trees are all in blossom, and there is a prospect of good crops everywhere. MISS R. M. WHITAKER.

Bennett Valley, April 8.

Watsonville's Coming Meeting, Etc.

Owing to an undue amount of business, Watsonville Grange was unable to complete its work at its last meeting. A special meeting is called at 1:30 P. M. April 13th, to instruct four of the 17 candidates, who were unavoidably detained at the last meeting; also to make arrangements for conferring the third and fourth degrees, and for the Harvest Feast, Saturday, April 20th, at one o'clock. On this occasion, Worthy Past Master Flint of Sacramento, at present Worthy Lecturer of California State Grange, accompanied by Worthy Secretary A. T. Dewey of the Pacific Rural Press, are invited and expected to be present; also Mayor Hill, Master of Salinas, with his entire Grange. All Patrons in good standing are invited to be present.

Grange Elections.

ARROYO GRANDE, No. 74, Arroyo Grande. Reorganized April 6th by General State Deputy J. V. Webster, assisted by Bro. Geo. Steele. Officers: Geo. Steele, M.; A. Fowler, O.; O. M. Pence, L.; E. Leedham, S.; Isaac Kite, A. S.; J. V. N. Young, C.; W. F. Short, T.; J. F. Beckett, Sec.; Amos Henry, G. K.; Miss Rilla Young, P.; Miss Fanny Henry, F.; Mrs. A. Fowler, Ceres; Mrs. F. B. Record, L. A. S. The postoffice address of the Worthy Master is Edna; all the others Arroyo Grande. All were installed except the G. K., Flora and L. A. S. P. O. address, Arroyo Grande, San Luis county, Cal.

SECRETARY COBB AT MODESTO.—J. T. Cobb of Kalamazoo, Secretary of the State Grange of Michigan, and editor of the Grange Visitor, the official organ of the Grange, arrived in Modesto and is the guest of Hon. V. E. Bangs. Mr. Cobb has been Secretary of the State Grange since its organization 13 years ago.—Stanislaus County News.

TULARE GRANGE had an interesting meeting on Saturday last. The fourth degree was conferred.

Grange Day.

MESSRS. EDITORS:—This is Grange day. How many Patrons are saying this, this morning! And truly this is one of the most beautiful days—a perfect day. The air is full of the breath of lilacs and apple-bloom. Nature could not put on a lovelier garb. But I forget. This is Grange day for Roseville Grange. We are to have a Harvest Feast; have invited other Placer county Granges, and expect a real old-fashioned love-feast. Roseville Grange is alive and thriving. We are getting a library. Our Master is one of the live ones. It will take quite an effort to get the Grangers in Placer county fully alive to the work; but it can be done, and we shall see a boom in Placer county Granges as well as in other places, for whatever the agriculturists in this county attempt, they carry through. The crops are looking well, and our fruit is as fine as can be found on the coast. The man who owns a fruit farm near Penryn or Newcastle has a fortune.

Hope to come to the meeting the 11th if all is favorable. Am more than pleased with the Press. MRS. S. J. CROSS,

Roseville, April 6. District Lecturer.

Reorganizing Napa Grange.

A meeting will be held April 13th at 10 A. M. in the south room of the courthouse at Napa, for the purpose of reorganizing Napa Grange. Over 25 have signed the papers, and more are expected. Hon. J. V. Webster, Past Master of the State Grange, and A. T. Dewey, Secretary of the State Grange, are expected to be present. An open meeting of former Patrons of Husbandry and farmers, and their wives and daughters who are eligible for membership, will be held.

Napa Grange, No. 2, was once among the largest and foremost in the State, and it now seems certain that it will soon resume its old position. Visiting Patrons from abroad are invited, also all former members of the Order in Napa county who still remain eligible to membership. Former members of St. Helena, the last active Grange in the county, it is hoped will be in attendance; also Patrons from Yountville and other dormant Granges.

Old Charter Members.

W. A. Fisher, Master; J. Walter Ward, Secretary; W. H. Nash, Daniel Gridley, L. W. Evey, James M. Thompson, T. H. Thompson, Wm. Fleming, Levi Hardman, Paris Kilbourn, J. M. Mansfield, C. A. Menefee, J. L. Marshall, W. W. Smith, Jas. B. Saul, D. Squib, A. A. R. Witting, Wm. H. Winter, G. W. Henning, Mrs. W. H. Nash, Mrs. C. Plass, Mrs. Blanchar, Mrs. J. M. Mansfield, James Hill.

A Call for Bro. Logan.

A hasty glance over the field shows that the growth and increase of the Grange is continuous. New Granges are constantly added to the great roll, and at present California is certainly in the lead. Think of it. Six new Granges in one month! Hard work is the cost of this attainment, and there is one in Oregon who suggests that "Bro. Logan steer for the north and help us." It is just as true of work in the Grange as of genius, that the measure of a man's prospects of attainment is practically his willingness to work hard and tirelessly. Visionary schemes seldom achieve aught that is of value. Hard practical knocks are required.

Interstate Commissioners' Meeting.

At Chicago, April 9th, the first meeting of the Interstate Commerce Railway Commission since A. F. Walker was chosen its chairman was held. Nearly all the roads in the association were represented. The question of fast trains between Chicago and Kansas City was considered at length. The matter was finally referred to a committee of managers. A general discussion on the Interstate Commerce Act followed, it being unanimously decided to enforce its provisions and learn by experience whether or not it is practicable. The next meeting will be held on the second Tuesday in July.

CIRCULATE good reading and you will make good Granges. Watsonville Grange, one of our busiest, takes three copies of our Grange edition—one goes to the reading-room, where it acts as a missionary, another is kept on file by the Secretary, and the Master uses the third to show parties and secure new subscribers.

We have been very busy this week preparing for the Deputies and Executive Committee meetings. We go to press too early to give a full report of the proceedings, but in our next issue we hope to present a grand record of work done.

The Granges of California.

As they appear to a Pennsylvania Patron.

MESSRS. EDITORS:—One year has passed since I entered this State and made it my home; one year of mingling with many persons who were entire strangers to me makes me prepared to say I intend to remain a resident of the State awhile yet with you.

The first time I entered the Grange of this State was while the State Grange was in session at Tulare. After taking my seat and looking around the well-filled hall, something caused me to feel at home. While I was a stranger in a strange land, and among strangers, the faces of all looked familiar to me; yet there was but one person whom I could recognize. That was Worthy Past Master Johnston, whom I met while attending the National Grange in Philadelphia, Pa., near my former home.

Since that session, I have enrolled myself as a member of Tulare Grange and attended most of their meetings. I have observed the growth, the advancement, and the talent this Grange possesses, and can say that it is made of good material, which will be a lasting benefit to all who are interested in agriculture. While I have visited many Granges in the East and felt the fraternal hand of the Order, nowhere did I feel it more than while I was traveling and fell in with the company of Bro. Carr and those who went from one Grange to another to fulfill the program laid out by Bro. Dewey. Such true patriotism as was exhibited by the Patrons, and especially the Matrons, from Tulare to San Jose, I never saw equaled. I must refer to the able and noble reception speech given to Bro. Carr by Worthy Past Master Johnston. When the National Grange meets in this State, I hope the Worthy Past Master will be chosen to deliver the reception address, as it was enough to bring applause from any audience. It was a surprise to Bro. Carr. The worthy brother said he could not answer it. This visit was the most pleasant that I ever experienced, and it made me feel as if I were only a weak member of the Order.

While this State Grange has not adopted, to my knowledge, any co-operative system by which all members are benefited, yet if I had the ability of a Whitehead, how I would urge upon the members generally to adopt the system of co-operation which has existed so successfully for many years in Pennsylvania. If adopted, it will be a link by which the Grange can hold its members more together. And now while the Grange throughout the State is increasing with rapidity, something more is necessary.

A Good Meeting.

The meeting at Tulare on the 6th was one of the largest I have attended, the hall being well filled. Nearly all the seats were occupied. After conferring the third and fourth degrees on the candidate in waiting, the fire-insurance question was discussed in a lively manner, which brought several to their feet. The main objection raised was that some did not consider that the Grange was strong enough, or had been educated to a sufficient degree, to warrant success without calling in assistance from outsiders.

An open meeting will be held to advance, if possible, the subject, on the 13th of present month. We have more candidates on the way. The Grange is a school in which is taught the importance of taking more interest in our calling. E. C. SHOEMAKER, Visalia, April 8.

Our good brother cheers us in his complimentary notice of California Patrons and their work, and we hope his suggestions may set some of our earnest members to thinking, and that they will put their thoughts into action. We thank him for his communication, and hope a longer stay will make our advantages so attractive that he will never wish to return to Pennsylvania. Our good brother accompanied Worthy Master Carr in his lecture tour over the State, and has had a good opportunity to form acquaintances, if he has resided here but a single year.

A Needed Reform.

Ex-Secretary Endicott, in company with his successor, Secretary Proctor, recently called on President Harrison. He afterward talked quite freely with a reporter. He said he felt relieved at being once more a private citizen, and added: "The President does not seem to be looking very well. He evidently needs a rest. The American people put too much strain on their Presidents. The work ought to be delegated. The time is near at hand when it will have to be done. Our great need is a more extended civil service. This is the only Government where there is a scramble for office. It is undignified, unpatriotic, and until the tenure is made secure, and places are filled

with good men, the President will be overburdened. Look at England. There is a free Government, and there men who desire to enter the employ of the Government are tested thoroughly, and if found competent, are offered every inducement to stay in the service. Within the lifetime of the generation now being born there will be in this country an army of officials 300,000 strong. Then civil service will be necessary, and the President will have to be relieved of his drudgery of appointments by heads of departments and bureaus, because no one man can be able to do the work. The reform would not commence too soon if it were put into operation at once."

The Cactus-Hedge Swindle.

That cactus-hedge fence swindle promises to be a prickly subject. The Fresno Republican has received numerous letters from substantial farmers denouncing the fraud. The latest complaint, they say, comes from the neighborhood of Anderson, and such farmers as Robert Doherty, W. F. Flournoy, M. A. Hill, I. L. Harris, Ed McNamee and others are bitter in their denunciation of the cactus hedge. These men say: "In the autumn of 1887 an agent took quite a number of orders here for this cactus hedge. The company agreed to furnish the plants for \$130 per mile; if they failed to grow, the company was to furnish plants to reset, free of cost. The plants were delivered here about March 11, 1888, and were planted carefully. Not one of them grew. When the plants were delivered the farmers were required to pay about one-third cash and give notes for the balance. The notes were sold; the farmers have had to pay them. The company proved a fraud. The company claimed to have been incorporated in Fresno county, but there are no articles of incorporation on file in the clerk's office of that county. They also claimed to have a patent on planting the hedge."

It is to the latter portion of the above attention is called for the purpose of doing justice to several gentlemen in this city who were at one time connected with the cactus-hedge concern. They went into the business in good faith, and it was some little time before they found it to be a swindle. When they did learn this fact, they withdrew from the concern at a loss to themselves. The reputation of these gentlemen, and notably that of Mr. J. H. Hamilton, who is mentioned, because his name was extensively used as being a member of the firm, is such as to preclude the possibility of his knowingly engaging in any business not strictly honorable and honest. No one stands higher than does Mr. Hamilton in this community, and his well-known integrity made it impossible for him to remain with the firm a day after the true nature of the business became known to him. In future it is to be hoped that in mentioning the Cactus-Hedge Company of Fresno, now, and for some months past, *non est*, the newspapers will qualify the statement that all the members of the company were not swindlers. Mr. Hamilton probably suffered more heavily than any one else, and no one can more sincerely regret his connection with the cactus hedge than he does.

THERE is some talk of reviving the Grange at this place, but we have not been able to trace the rumor to any reliable source. It probably grew out of the fact that interest in the organization has been revived on account of the approach of the time for holding the National Grange in California.—*Dixon Tribune*.

The above is good news. We hope it is true, and that the old Grange may be revived. If not true, some Patron should endeavor to resuscitate it. There ought not to be a single dormant Grange in any State. What stumps are to a farm, are dormant live Granges, a disfigurement and stumbling-block. If we cannot get all the old material back, let us get new timber. We can at least have the Grange a living reality, and not a monument to a past mistake.

BRO. FLINT AT WATSONVILLE.—The persistency of Sister Roache has been rewarded, and Watsonville Grange will have the pleasure of listening to State Lecturer Flint, who goes there to confer the third and fourth degrees, April 20th. He writes us that Sister Roache's flattery tempted him as the forbidden fruit tempted Adam, and he yielded. We are glad to learn this, and can assure the Patrons of Watsonville Grange that they will be glad they had the opportunity to see and hear him.

IN France the highest officer of the Cabinet holds the portfolio of agriculture. We seem to be content to tack it on in a half-hearted way at the end and to fancy that anybody can fill the office.—*The Chautauquan*.

New Election Laws.

The election laws passed by the last Legislature and printed below should be read carefully by every voter:

CHAPTER CVII.

An Act to amend Sections 1257, 1258 and 1259 of the Political Code of the State of California, relating to counting of ballots at elections, and ascertaining, recording and returning the results thereof.

[Approved March 11, 1889.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section one thousand two hundred and fifty-seven of the Political Code is hereby amended so as to read as follows:

1257. After the lists are thus signed, the board must proceed to count and ascertain the number of votes cast for each person voted for. All the ballots must be taken out of the ballot-box, one at a time, and opened by one of the members of the board, and as so taken out must be placed in separate piles, according to their respective ticket headings, vignettes or other designations, in manner as follows, to wit: All the scratched ballots of each separate political or other party must be placed in a separate pile, and all the unscratched ballots of each such party must be placed in a separate pile, and all undesignated ballots must be placed in a separate pile in like manner. When all the ballots shall have been so placed in piles, the number of ballots in each such pile must be carefully, correctly and distinctly counted aloud by a member of the board, in the presence of the board and of the bystanders, whereupon an official record must be made by each clerk, of the total number of ballots in each such pile, specifying its party designation, or that it is undesignated, and of the total number of ballots in each such pile. Immediately thereafter all unscratched ballots must be by one of the judges strung upon one string in such a manner that all the unscratched ballots of each party shall be in direct succession and immediate proximity upon said string; and all such unscratched ballots shall thereupon be securely bound together by said string and replaced in the ballot-box. Immediately thereafter each pile of scratched ballots and of undesignated ballots must be separately secured intact by twine or other convenient fastening and replaced in the ballot-box. Immediately thereafter one, and only one, such pile of scratched ballots must be freed from such twine or other fastening without removal from the ballot-box, and such ballots must be taken out one at a time, by one of the members of the board, and immediately thereafter each name erased upon each such ballot must be correctly and distinctly read aloud by a member of the board, and each clerk must write down each name erased, and keep the number of erasures by tallies opposite each respective name as so read aloud. Immediately after all the erasures shall have been so recorded, the names substituted for such erased names must be in like manner correctly and distinctly read aloud and written down, and in like manner be separately recorded by tallies by each clerk, and immediately after such tallying of the erasures and substituted names upon a ballot, the said ballot must be by one of the judges strung upon another string, and thus each scratched ballot in its order, and each pile of scratched ballots in its order, must be freed and canvassed and strung upon the same string in such a manner that all the scratched ballots of each political or other party shall be in direct succession and immediate proximity upon said string. Immediately thereafter such pile of undesignated ballots must be freed from such twine or other fastening without removal from the ballot-box, and such ballots must be taken out of the ballot-box, one at a time, and opened by one of the members of the board, and the ballot must immediately be distinctly read. Each clerk must write down the name of each person voted for upon each such undesignated ballot and the office he was voted for to fill, and must keep the number of times each person was so voted for upon undesignated ballots by tallies opposite his name as the ballots shall be so read aloud. Each such undesignated ballot, so soon as thus read and tallied, must be strung upon the same string with the scratched ballots, and all ballots rejected for illegality must then be strung upon said string of scratched ballots, whereupon all the ballots thus strung upon said string must be securely bound together by said string and replaced in the ballot-box, whereupon the total number of ballots of each political and other party, the names erased, and the number of erasures of each name thereon, the names substituted for erasures, and the number of substitutions of each name thereon, also the total number of undesignated ballots cast, must be written out plainly by each clerk, and must be prominently posted in the room where counted and tallied, and a duplicate thereof must be prominently posted on the front of the building within which the precinct canvass shall be progressing, and a triplicate thereof must be sent to the registrar's office, if in San Francisco, otherwise to the office of the county clerk of the county. For the purposes of this section a scratched ballot shall be a ballot having the name or names of one or more candidates thereon erased, and an unscratched ballot shall be a ballot having no name thereon erased, and an undesignated ballot shall be a ballot having no ticket heading, vignette or other designation.

SEC. 2. Section one thousand two hundred and fifty-eight of the Political Code is hereby amended so as to read as follows: 1258. Each clerk must write down each office to be filled, and the name of each person voted for to fill such office, and opposite each such name to write down the total number of

scratched ballots and the total number of unscratched ballots of each political or other party (designating the parties respectively) on whose party ballots such name shall have been originally printed (or written, if not a printed ballot), and next write down the number of times such name shall have been erased upon scratched ballots, and lastly write down the number of times such name shall have been inserted (substituted in lieu of a name or names erased), upon scratched ballots; also the number of times each name appeared on undesignated ballots. Each clerk must then ascertain the net vote of each person voted for, from data thus written down opposite his name, by deducting from such total number of scratched and unscratched ballots the number of times his name was erased upon scratched ballots, and adding the number of times his name was inserted (substituted) upon scratched ballots, and the number of times it appeared upon undesignated ballots, and must then write down his net vote, thus ascertained, immediately after the said data thus written down. All the exhibits severally written down by the clerks, under the provisions of this section, and of section one thousand two hundred and fifty-seven, next preceding this section, must be respectively disposed of in manner as provided for certain lists in sections one thousand two hundred and sixty-one and one thousand two hundred and sixty-two of this code.

SEC. 3. Section one thousand two hundred and fifty-nine of the Political Code is hereby amended so as to read as follows:

1259. The ballots having been thus strung upon two strings, and bound together respectively, must not thereafter be examined by any person; but all such must be carefully sealed in a strong envelope, and each member of the board must write his name across the seal.

CHAPTER CLXXVII.

An Act to amend Section eleven hundred and ninety-one of the Political Code, relating to election tickets and ballots.

[Approved March 16, 1889.]

The People of the State of California, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section eleven hundred and ninety-one of the same code is amended to read as follows:

1191. No ticket must be used at any election, or circulated on the day of election, unless:

1. It is written or printed on paper furnished by the Secretary of State, or upon paper in every respect precisely like such paper.

2. It is six inches in width, or within one-fourth of an inch of such width. If not more than fifty offices are designated to be filled, it is twelve inches in length, or within one-half of an inch of such length. If more than fifty offices, and not more than eighty offices, are designated to be filled, it is eighteen inches in length, or within one-half of an inch of such length. If more than eighty offices are designated to be filled, it is twenty-four inches in length, or within one-half of an inch of such length.

3. If printed, the names of the persons voted for and the offices are printed in black ink, and in long primer capitals—the names of the offices in small capitals and of the persons in large capitals—and both without spaces except between the different words or initials in each line, and between the numbers and initials.

4. If printed, the same margin is left above the printed matter as below it.

5. If printed, the lines are straight, and the matter double-lead with six-to-pica leads. The word "For" comprises the top line, the margins both sides of it being equal in size. The line after the top one commences with the figure one, then follows immediately on the same line the name of the first officer designated by the Board of Supervisors, or other board having charge and control of elections, in its order, issued under section one thousand one hundred and thirty-one; and lastly, on the same line, the name of the person voted for. Each subsequent line commences with the figure next in numerical order, and such number is in like manner immediately followed by the name of the office designated and the person voted for, so that the offices shall appear upon the ticket in the order designated by the Board of Supervisors or other board having charge and control of elections, and be numbered in numerical order, commencing with the number one. The numbers are in a straight line from top to bottom, and are within one-quarter of an inch of the left-hand edge of the ticket, so that the blank space for substituted names shall be on the right-hand side of the ticket. The ticket shall be substantially in the following form:

For—

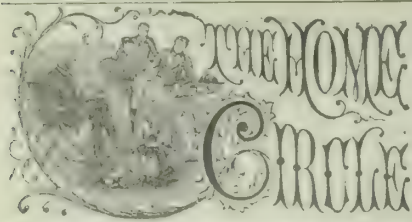
1. STATE SENATOR, FRANK COWPER.
2. STATE SENATOR, PHILIP ROSS.
3. MEMBER OF ASSEMBLY, A. S. WARDEN.
4. MEMBER OF ASSEMBLY, W. A. SWIFT.
5. MEMBER OF ASSEMBLY, C. T. HOLLIDAY.

North Butte Harvest Feast.

The Secretary of Yuba City Grange, says the *Sutter Farmer*, has received the following invitation, dated Gridley, April 1st:

A Harvest Feast, under the auspices of North Butte Grange, No. 225, P. of H., will be given at Union hall, Live Oak, Saturday, April 13, 1889, to which the members of your Grange are cordially invited. Respectfully, JAS. MYERS, Sec.

BRO. G. WILSON writes that Enterprise Grange will hold a reunion April 21st, and invites the State Secretary to attend. We hope there will be a large attendance and the usual good time.



Vestis Angelica.

[It was a custom of the early English Church for pious laymen to be carried in the hour of death to some monastery, that they might be clothed in the habit of the religious order and might die amid the prayers of the brotherhood. The garment thus assumed was known as the *Vestis Angelica*.]

O gather, gather! Stand
Round her on either hand!
Ye shining angel band
More pure than priest;
A garment white and whole
Weave for this passing soul
Whose earthly joy and dole
Have almost ceased.

Weave it of mothers' prayers,
Of sacred thoughts and cares,
Of peace beneath gray hairs,
Of hallowed pain;
Weave it of vanished tears,
Of childlike hopes and fears,
Of joys, by saintly years
Washed free from stain.

Weave it of happy hours,
Of smiles and summer flowers,
Of passing sunlit showers,
Of acts of love,
Of pathways that did go
Amid life's work and woe;
—Her eyes still fixed below,
Her thoughts above.

Then, as those eyes grow dim,
Chant ye her best-loved hymn
While from yon church tower's brim
A soft chime swells,
Her freed soul floats in bliss
To unseen worlds from this,
Nor knows in which it is
She hears the bells.

—T. W. Higginson, in *Scribner's*.

April Tears.

O April! bonny April, why shed such showers of tears

When the green, green grass is springing over all
the waking earth,
And many a fragrant flower the wood and meadow
cheers,

And many a bird from budding trees sings songs
of love and mirth,

O April! bonny April, why shed such showers of tears?

"My tears are not of sorrow; they are happy, happy
tears,

The golden sunshine makes of each a sparkling
rainbowed gem;
I am so glad as each sweet flower and joyous bird
appears,

To think that back to our dear land my voice has
summoned them.

My tears are not of sorrow. They are happy, happy
tears!"

—*Vick's Magazine*.

Secrets of Success in Marriage.

[Written for the Rural Press by MAID-OF-ALL-WORK.]

Many young girls look upon marriage as merely an institution by which they are provided for, and the truth that they are called upon for various qualifications only dawns upon them slowly, if at all. We say with regret that a gentleman has married out of his station, because women in so many cases fail to prove themselves flexible to the emergencies of their lives. When a woman marries with the idea that her life effort is over, and that all she needs to do is to eat, dress, and be happy, she has made ready the proposition to be asked fifteen years later, "Is marriage a failure?"

Gentle Mary marries Farmer John, but Farmer John goes to Congress in after-life, and Mary must face the emergency of supplying the newspaper qualifications, as the "elegant and accomplished wife of the Hon. John."

In other words, the wife marries for worse or better, and she must climb as he climbs, supplying at home and abroad his need of her. She needs this flexibility in innumerable ways.

Possibly Farmer John does not go to Congress, but after years of toil loses his health, and must lean upon his wife as upon a staff. She must learn to have a quick eye, upon short notice, for things she did not previously understand. A strong, wise girl can risk more in marriage than a girl of less sterling qualities.

An elegant dress does not make a society woman by any means, any more than a plain dress makes a housekeeper; and the woman who thinks that the safe quality of her husband's love makes her qualified for any and every need he may have for his life companion, lays the foundation for a house of pain that he must occupy, however little he may say, and however forgiving he may be.

A woman makes a failure of marriage unless she makes an effort to do a great deal more than is implied in her marriage contract. It is supposed that the husband supplies the material for the home, and they are very raw materials indeed unless the wife takes hold of those means with the hand of a creator, build-

ing up out of them helps and associations loved and needed by both. And a woman must put her soul into her house, or it is a hollow and sounding shell.

As high as we must rate the accomplishment of good housekeeping, it is not all in the making of a home. I know a lady who was a marked failure as a housekeeper who was the idol of her husband, and who graduated to the world a family of accomplished and honored children. And there are women who in pain and weakness are confined to their own rooms, yet who manage to hold the power in an orderly house and fill it full of love-light and happiness sufficient for the comfort of all who cross its threshold.

It is the quality of recognizing and filling need that is the essential quality of success in marriage. Practically, if a man comes home from business with a headache, hungry for a bit of sympathy and love, and a good deal of quiet, and finds his wife in a raging excitement over an elaborate dinner, and is ordered to keep out of the way and amuse the children till the great proceeding is culminated, he is about as unfortunate as the man who brings a college friend home to dinner and finds his wife in wrapper and slippers deep in a French novel. But the woman who spies the coming friend from the window, slides out of her wrapper in a twinkling and appears upon the scene in due time with a soul-cheering cup of French coffee, is the woman who makes her husband envious among men.

Unfortunately women have hobbies, and ride and ride and never perceive that they are boring their companions to death. There are men who would go to war to be rid of paper flowers, hair flowers, rugs, tidies and what not; and there are men who think art and music are inventions of the evil one to make people miserable. Any one, anywhere, who cultivates a hobby at the expense of other people's comfort is making a failure of life; but true politeness of the heart between friend and friend, man and wife, will obviate the danger of overdone amusements.

It is easier to forgive virtuous excess of zeal, and it is mostly excess of zeal for excellence of some kind that causes some women to be more exclusively housewives than wives of men. The greatest of charity should be extended to a woman who makes her house so perfect in detail and polished in appearance that her friends go into it with fear and trembling, for she is afflicted with a most virtuous zeal, and has only overdrawn a very good thing. Housekeeping needs its fanatics and martyrs as well as any other good cause.

But housekeeping conducted as a means of happiness and comfort, either in a cabin or a palace, is a science that no wife can neglect if she wishes to sustain the law of mutual helpfulness in marriage.

A wife expects her husband upon marriage to begin a course of toiling for her support without remission or any suspension of responsibility, and why should he not expect her to aspire to the greatest excellence in home-making? Just here is where the wedge of dissolution frequently enters. A woman fails to give as much as she receives—that is, she works from compulsion more than from a desire to keep up her side of the partnership with dignity and grace.

But one says, "I work all the time; I work like a slave." Yes, my dear, you do work like a slave—just like a slave, and not like a responsible being seeking an end and not the means. You have braided little Eva's dress up and down and all over, which does not help little Eva, and your husband would have appreciated you more had you spent your evenings with folded hands and happy face in your rocking-chair by his side. You spend hours of time on unnecessary things, and forget the essentials of your partnership, which is to evolve as much peace and comfort as possible out of your materials.

The science of good housekeeping in these days, when we can buy so many conveniences, is not so much superiority in any one thing as a general excellence in everything. We do not need cooking schools for girls so much as schools where all branches of home-making are taught, in order to preserve the balance of usefulness in the girl's mind. A man does not want to marry a *chef de cuisine*, and it is no wonder the papers make fun of cooking-schools. To learn one department of housekeeping to the neglect of everything else is ruinous.

If a woman is to marry, there is nothing so much to be valued as good health and good sense and a very loving heart, and then it will follow that she will adapt herself to the calls upon her ability. When a woman marries for a life of ease and doesn't get it, there is certainly no remedy in her case so long as she forgets that life is a struggle anywhere, and feels that she should be excused from helping to carry the burdens of those by whom she may be surrounded.

The mutual bearing and forbearance of life is as greatly the secret of happiness in marriage as in anything else. We have to tolerate unpleasant things in our companions in any relations of life, and why try to build up a law of marriage in any other way?

A conscientious little wife once said to me: "I am so conscious of my husband's faults that I am miserable. I want him to be perfect, and I see every error." She said: "Some women think their husbands perfect, anyway, and can see no faults—which do you think is real love?"

I was quite young then, and that was a con-

undrum to me sure enough. I have always been sorry that I was not able to advise the woman in any way. But it seems to me now, though I do not claim to know, that a large portion of Christian charity was the only safeguard for her. If you love a friend or companion, you must forgive and tolerate much more than those who love him not. Love calls for sacrifice, and the first sacrifice is toleration and endurance of faults and errors. "Charity suffereth long and is kind" is the principle upon which is founded the largest domestic peace.

For this reason, also, no one really knows whether marriage severally or generally is a failure or not. The propounder of the riddle knows there is no answer. You never can tell how much genuine romantic love there is behind a very unpromising front. Probably those who know most about it who have burnt their fingers taking sides in a connubial conflagration. Glaring faults, causing much inconvenience and misery, do not prove an unhappy marriage. Try to separate those presumably unhappy creatures, and see. For this reason we can discuss the defects of homes without the slightest disrespect.

But as I am one of those old-fashioned people who see more happiness in a well-ordered, tasteful home than in anything else, I also think that the untidy, unambitious wife needs a great deal of forgiving; so that I would have my heroine crown a liberal education by learning housekeeping. But this perfect woman must live with the imperfect man, even as the perfect hero smooths the pathway of a childish and indolent wife.

There are a great many society fiends who delight in commenting upon a fine woman's marriage thus: "Far too good for him, don't you think? What did she marry him for? Money?"

They make me shiver; they are a cold-blooded race. It is absurd. In common American society you don't find people very much above or below each other, yet people make such cold-blooded remarks whenever a refined and educated woman consents to marry no matter whom. These remarks must be made on the proposition that marriage is a failure in itself, and that mated qualifications only make it a success.

People never marry according to their excellencies in any one thing, as you select clerks, which goes to show that marriages are somewhat mysteriously made in heaven, and that Heaven paternally supplies the kindness and grace, patience and love, by which the incongruous elements are successfully domesticated. One must contribute unnumbered sacrifices to any success. The educated woman or superior woman ought to be very well prepared by her very excellencies to make a happy life out of a marriage that outsiders may criticize severely. What else are attainments and powers in general good for?

It follows that any course of study that trains the mind and strengthens the judgment is not lost in the preparation of women for marriage. A woman of trained mind and ambition looks upon marriage once entered into as a condition to be made a success of whatever the difficulties may be. She learns to do new things with ease, and habits and peculiarities, likes and dislikes, everything but principle, is molded, changed and shaped to make the dual life agreeable.

Men can do these things, but men who spend every day and hour grinding out the dollar in close business life become ossified in habits, and, like the sturdy oaks, are not easily awayed. Bright women train and trim the oak a little, leaning on it all the time for its superior strength.

It all drifts back to the old story of the oak and the vine, the luxuriant vine that covers so many blemishes and excrescences with beautiful foliage. It will go on so. Women are happiest in giving, loving and doing, and there is no other way.

To make it a rule to love only congeniality is to make life a walk of continual change and dissatisfaction. Be true to yourself, and love will be true everywhere.

Here we come on to the thought that haply married love is added to by some of the God-love that the Savior let out into the world, to love with pitying tenderness one to the other, as God so loved the world even in its sins. Mutual grace brings mutual happiness, and with mutual forbearance, does any companionship grow dearer even unto death?

Chautauqua Summer Assembly.

The Chautauquans are to have at Pacific Grove this summer their renowned founder and Chancellor, Bishop J. H. Vincent, and also Bishop Warren, who is another star of the first magnitude. Col. Geo. W. Bain of Kentucky, Col. L. F. Copeland and Prof. A. J. Marks of Chicago, all have promised attendance and two or more lectures, which makes a program of rare attractions, but the best of California literary and scientific ability is also being pressed into service. Last but not least, a musical troupe of colored singers, called "The Jubilee Jingers," are to furnish original and delightful entertainment. These "Jingers" are four gentlemen and two ladies who have all been connected with the famous "Hampton Band," or "Nashville Students," and are first-class jubilee singers. Pacific Grove should hardly be able to hold the crowd these attractions will draw.

Nagging.

Many estimable wives and mothers become so committed to this disagreeable habit that not infrequently the happiness of the family is wrecked by it. It is so much the more to be regretted because it is from the very nature of their qualities that the habit is acquired. It is not the slipshod, happy-go-lucky people that are annoyed by the faults of others—the shirking, the want of consideration, the total disregard of every plain duty. No, they are painstaking, conscientious souls who are sorely tried by the negligence of others, the waste of time and opportunity and substance it may be; who find their strength unable to bear more than two or three times their share of the heat and burden of the day; who have again taken up the task of others less conscientious; who have again and again stood between these others and the consequences of their own indolence, folly, stupidity and injustice—these are the ones who give vent to their overwrought feeling in bitter complaining and reproach.

Just here lies the danger. A careful housewife, fully alive to the importance of thoroughness in the little things in the household, as well as large things in the conduct of life, sees constantly so much undone, or worse than undone, on the part of the husband, children and servants, that in the constant endeavor to set them all right, to restrain this one, or to bring that one up to the requisite point, or to ward off the consequences of the thoughtlessness of this one, and want of consideration of that one, the habit of nagging grows stronger and stronger upon her from day to day. But let her possess her soul in patience, let her be assiduous in cultivating that "sweetness" which is the main element of Matthew Arnold's culture and which is frequently spoken of by Jonathan Edwards, stern and uncompromising Calvinist though he was.

Better that the peccadilloes in the kitchen should be unobserved at times by the mistress than that the house should be shunned by all the willing servants in the neighborhood; better that the faults of the children should be lightly reproofed than that they should learn to do without their mother's sympathy and love, which will most likely be the case if she pursue toward them a course of perpetual and persistent fault-finding; better that the husband's petty failings be passed over in silence than that he should learn to find his happiness away from home, perhaps in some other woman's home.

It is not meant that all reproof or fault-finding is reprehensible; children and servants must be shown how to do better, but with judicious words of commendation thrown in to temper the blame. In this, as in other things, let a golden mean be observed.—*Philadelphia Press*.

He Gave In.

Simeon was not naturally an ill tempered man, but he treated his wife more like a slave than an equal. If his temper was ruffled abroad, she was sure to suffer when he came home. His meals he insisted were badly cooked, though the good woman did her best to please him.

One day Simeon sent home a large fresh cod, with orders to cook it for dinner. The wife knew that whether she boiled it or fried it or made it into chowder, her husband would scold when he came. She therefore cooked portions of the fish in several different ways, that for once, if possible, he might be pleased with the dinner. She did more, she secured a frog from the brook back of the house, and put it into a large dish.

At noon Simeon came home, with his usual fault-finding look. "Well, wife," said he, "how did you cook the fish? I suppose you've spoiled it for my eating," when, as he took off a cover, he continued: "I thought so. Why did you fry it? I'd as soon eat a fried frog; why didn't you boil it?"

"I have boiled some also," said she, lifting the cover and showing the shoulders of the cod nicely boiled.

"Boiled fish! Chips and porridge," growled Simeon. "If you had not been so stupid you would have made a chowder."

With a smile she placed before him a tureen of chowder. "My dear," said she, "I was determined to please you. There is your favorite dish."

"Favorite dish indeed!" growled the surly man. "It's a wishy-washy mess. I'd rather have a boiled frog than the whole of it." His wife had anticipated his favorite expression. She uncovered a large dish and showed a bull-frog stretched out at full length.

"My dear," said she, "I hope now you will make an excellent dinner." Simeon jumped up from his chair. The humor of the whole scene overcame his sulkiness. He burst into a hearty laugh and declared that never again should she have occasion to expose him as a croaker, and he has been as good as his word so far.

She who keeps her temper and perseveres in her efforts to please will in the end conquer by kindness.—*Bureka Times*.

DRUGGIST (awakened at 2 A. M.)—What do you wish?

Voice (at the door)—If you'll let me look in your directory to see how to address this letter, I'll buy the postage stamp of you.

YOUNG FOLKS' COLUMN.

Tangles.

Enigmatic Snarls, Hard and Easy, for Young People of all Ages to Untangle.

7.—A SAGE OBSERVATION.



8.—DECAPITATION.

A simple, silly, shallow dude,
But seldom in a solemn mood,
D scarding books and solitude
For raiment loud and showy;
And when he with his subject warms
N'er wears dwelling on the charms
Of Phillis or of Chloe.
In fashion's maze if he his head
Should chance to lose, you would instead
See one of whom no doubt you've read,
A man renowned for travel;
One who a life of labor spent
The mysteries of a continent
A tempting to unravel.
Behold him now and in his place
Without much trouble you can trace
What one time saved the human race
From universal slaughter;
Since then it no attention craved,
And, though no milkman, once it saved
A prophet from the water.

MOUNT ROYAL.

9.—MATHEMATICALLY DESCRIBED.

A triangle having three acute angles supported by elongated sides; a circle minus a slight arc; two right angles formed by a perpendicular and a horizontal; a line; an acute angle; a plumb; a horizontal bisected by a perpendicular forming two rectangles; and an acute angle supported by an upright, will present a term applicable to the mental state of the solver of this problem.

CARL GREY.

10.—TWELVE FISHES.

1. What fish is a limit, or check?
2. And which with war our land would deck?
3. What one might be a husk or pod?
4. And which a rout, or to beat with a rod?
5. What one makes out by shifts to live?
6. And which one a quick puff does give?
7. What one a sound of voice or key?
8. And which finds fault with you or me?
9. What one would guide or point the way?
10. And which would slap by night or day?
11. What one could furnish us a bill?
12. And which a spear or point we call? ELVA.

11.—PHONETIC COMPOSITION.

What is it that contains a useful article, an insect, a large body of water, three rivers, a Latin preposition, a word of command, a brood, a bird, a measure, a girl's nickname, an interjection, a vegetable, a pigtail, a beverage, several letters, the person addressed, and his double? W. A. TAYLOR.

12.—ANAGRAM OF CANADA.

A scribe who drove a martial pen,
Thought it a due of partial men,
Each like an impudent,
To play a menial part,
While each leader vain
For his ample train
Would the palm retain.
If houses disunited tall,
I wonder this one stands at all.

WM. WILSON.

ANSWERS.

- 1.—Six (6, vi); nine (9, ix).
- 2.—See, saw, seen.
- 3.—Sorghum.
- 4.—1. Man, ban, bay, boy. 2. Wife, wine, pine, pint, punt, aunt. 3. Star, soar, boar, boor, boon, moon. 4. Good, gold, gild, mild, mile, vile. 5. Less, loss, lose, lore, more. 6. Corn, morn, moan, mean, meal. 7. Home, hole, hale, hail, hail, jail.
- 5.—Crocheting.
- 6.—An organ, or other keyed musical instrument.

Cinderella.

[Written for the Rural Press by MARTHA T. TYLER.]

Cinderella was the name of a cat. She might have been a princess for aught that any one knew of her pedigree, but when she first attracted Miss Millicent's attention she was anything but an heiress; moreover, she was a subject for the hospital.

Her fur, what little she possessed, was as dirty as circumstances could make it, and her poor, lean body was otherwise covered with sores; in a word, I do not like to write it, but Cinderella was mangy.

It was this lamentable, invalid condition which led Miss Millicent to pity her so profoundly when the orphaned puss came one morning to the ash-barrel standing in a corner of the backyard in search of food. The lady was watering her pet geranium when the forlorn animal emerged from the barrel in a cloud of dust and disappeared over the fence with the morsel she had extracted from the cinders.

"Poor thing!" said Miss Millicent, compassionately, and the next morning when the cat

came to look for a cold breakfast, she found a saucer of nice warm milk and bread awaiting her on the kitchen steps.

This delightful arrangement was repeated for several days, and Cinderella, with the sagacity of her kind, soon learned to recognize a friend in Miss Millicent, and by degrees permitted her new acquaintance to touch the furry places on her back, and was even coaxed into the kitchen, where salve was applied to her wounds and where she was quite at home in a trice curled up in a heap beneath the hospitable stove.

A few months' time effected a wonderful difference in her health and personal appearance. She became fat and strong, and in a clean, new coat of white fur and genteel gray gloves was a cat that her mistress might be proud of.

But the most sensational part of Cinderella's history is to come.

Miss Millicent's cook was an old colored man whom she had known from childhood. She called him Uncle Jerry, which was short for Jeremiah, and a good deal more appropriate than the longer name, for Uncle Jerry, though he was pious and liked to sing Methodist hymns, had a very cheerful disposition, and was not at all given to lamentation.

He could make beautiful bread and puddings and could roast a turkey to absolute perfection; but he was, unfortunately, stone deaf, and had a reprehensible habit of leaving the oven door open when he had removed his roast or his pudding, as the case might be.

One night Cinderella, ensconced as was her wont on a mat under the stove, awakened from the sleep of the just and stretched herself with a little shiver, for the fire was nearly out and the night was chill.

"Miau! miau!" she said, cat-fashion, gazing round her. "It's convenient that Uncle Jerry should have forgotten to close the stove door. I daresay it's warm in there," and without more ado she leaped in.

It was comfortable, certainly. She lay down contentedly and in a few moments was in the land of dreams.

Uncle Jerry came down later than usual next morning.

"Hi!" he ejaculated, as he entered the room. "Somebody's bin meddlin' with that stove, I reckon," and shut the iron door with a bang that roused poor Cinderella from her slumbers in an instant.

"Miau! miau!" she cried frantically to find herself so close a prisoner; but Uncle Jerry piled on the kindling and shoveled in the coal and sang "Gwine home! gwine home! I'se a gwine to my long etarnel home!" in stentorian tones, and paid no attention whatever—how should he?—to the caterwauling in the oven.

It was growing warmer, and Cinderella, despite her vigorous protests, would undoubtedly have found the cats' paradise in a very short time but for Miss Millicent. That good lady stepped into the kitchen at the critical moment, paused irresolutely with a puzzled expression of countenance, rushed across the room with a little scream, and liberated Cinderella just in time for that experimentalist to escape a severe scorching.

"Lands!" said Miss Millicent.

"Hi!" said Uncle Jerry.

"Miau o!" said Cinderella.

Swinging on a Mule's Tail.

Little Willie M., aged six years, is visiting his grandparents, who live in the eastern portion of the city, and adjoining their place lives Mr. H., who owns a number of mules.

Willie was out in the yard playing and spied one of the mules in the next yard. Not knowing the close resemblance the kick of a mule bears to the shot of a rifled cannon, or how upon the slightest provocation a mule will exercise his right to kick a small boy out of sight, Willie climbed the fence and catching the mule by the tail swung himself clear of the ground—for an instant only—and then the mule let drive with both feet, one of which struck Willie fair in the mouth. The little lad was knocked insensible, but the pain soon brought him back to consciousness, and his screams were heard by his grandfather, who carried him into the house.

Dr. Deardorff was summoned, and found that the shoe of the mule had cut a gash in the boy's upper lip, splitting it and extending through to the jaw bone. Two of his front teeth were gone and he was otherwise bruised. His wounds were dressed, and at last accounts the little fellow was resting easy.—*Fresno Rep.*

CLAUDIE ROLLS DOWN-HILL.—Down at Arroyo Grande the other day, while Mrs. Ward's youngsters were playing in Mr. Short's back yard with Claudie Thatcher and Freddie Leedham, Claudie concluded he would play circus, and called to his companions to see him roll down-hill. He went over and over with wonderful rapidity until he struck a bee-hive and overturned it. The little warriors came out in battle array, and completely covered the children, whose screams brought the neighbors to the rescue, and the liveliest fight that ever took place in Arroyo Grande was the result. The children were frightfully stung before they were rescued, and little Claudie Thatcher was black all over when picked up. Dr. Clark picked over fifty stings out of his face and head. Some of the rescuers fared badly also, and Miss Kate Thatcher was in bed one day from the effects of the battle. The children have all recovered, but they declare that they have no desire whatever to see Claudie play circus again.

GOOD HEALTH.

GETTING THE BEST OUT OF LIFE.—The London Standard, in discussing whether it pays to try to live to be a hundred years old, gives some useful suggestions. It says: "The man who really gets the best that can be got out of life is the man who, with a fairly good constitution to begin with, is ready to squander it at any moment and on every occasion in a sufficient cause. He keeps no account of profit and loss with his vital energy; he sees work to do and he does it, he sees pleasure to be enjoyed, and he enjoys it. He is alive all his life save when he sleeps; and he wakes from each fresh slumber looking the world cheerfully and courageously in the face, and ready and even eager to be a combatant when there is a good, honest fight, and a runner, when there is a good, honorable race afoot. He may not live to be 100, but he may well live to be 70, 75, or even 80. He may have a career, if not so conspicuous, yet as active, as varied, and as restless as that, say, of Mr. Gladstone, and yet not be really old when time registers him among the aged. 'Better fifty years of Europe than a cycle of Cathay,' and better 20 years of uncalculated activity than the slow pulse and measured step of the circumspect snail that creeps surely on to 100. We are not denouncing centenarians. They are like angels' visits, few and far between, and they are too rare not to be welcomed. Moreover, we doubt not that they deserve their length of years. But it would be a misfortune if it was ever thought an object of life to live very long. The object of life is to live, live nobly, live bravely. As Shakespeare says: 'Ripeness is all.'"

THE PHILOSOPHY OF EATING.—Growth and waste and repair go on in a nearly uniform way the whole year through, but the amount of food necessary for these operations is surprisingly small. The generation of bodily heat requires a more variable quantity of food. In winter, with the temperature of the external air at zero, the temperature of the blood in healthy persons is 98.3°, and when the heats of summer drive the mercury of the thermometer near to or above that mark, the blood still registers 98.3°. The marvelous mechanism by which this uniform blood temperature is maintained at all seasons, it is not necessary to consider, but it must be evident to every one that the force needed to raise the temperature of the whole body to nearly 100° in winter is no longer needed in summer. The total amount of food needed for repair, for growth, and for heating, physiology teaches us is much less than is generally imagined, and it impresses us with the truth of the great surgeon Abernethy's saying, that "one-fourth of what we eat keeps us; the other three-fourths we eat at the peril of our lives." In winter we burn up the surplus food with a limited amount of extra exertion. In summer we get rid of it literally at some extra risk to health, and, of course, to life. We cannot burn it. Our vital furnaces are banked, and we worry the most important working organs with the exertion of removing what had better never have been taken into the stomach.—*Selected.*

A NEW VICE.—The latest vice in the way of intoxication is reported from Boston. The material employed consists of the vapor of naphtha, which is simply inhaled, and induces, so the inebriates say, a particularly agreeable exhilaration. Not even hashish, it is understood, begets more fascinating dreams or more gorgeous visions of splendor. The girls in the rubber factories, of which there are a great number in Boston and its neighborhood, are greatly addicted to this novel form of drunkenness. In such establishments naphtha is used in enormous quantities to cleanse the rubber, being kept in big boilers, closed against the air. To the valves of these boilers the young women employes readily obtain access, and breathe the exhalations therefrom, some unlucky accident having betrayed to a chance experimenter the abominable secret. The notion is said to have been brought originally from Germany by immigrant laborers in petticoats. Now the manufacturers propose to put a stop to the evil by keeping the valves carefully locked. An overdose of naphtha fumes brings on hysterical convulsions and other unpleasant symptoms. The habit, long followed, causes a swelling of the face and other parts of the body, with dropsy to follow, and sometimes epilepsy.

FIVE WAYS TO STOP A COLD.—First—Bathe the feet in hot water and drink a pint of hot lemonade. Then sponge with salt water and remain in a warm room. Second—Bathe the face in very hot water every five minutes for an hour. Third—Snuff up the nostrils hot salt water every three hours. Fourth—Inhale ammonia or menthol. Fifth—Take four hours' active exercise in the open air. A ten-grain dose of quinine will usually break up a cold in the beginning. Anything that will set the blood actively in circulation will do it, whether it be drugs or the use of a buck saw. But better than all, if your cold is inveterate or serious, consult your family physician, and at once.

A NOTABLE SURGICAL OPERATION.—A very remarkable surgical operation was recently performed at Bridgeport, Conn., upon Mrs. Ida Brinamade. The operation required the utmost

skill and delicacy. It consisted of cutting through into the kidney to remove an abscess which had formed on the inside of that organ. The lady is 32 years of age. In the process of the operation the diagnosis of the physicians was found to be entirely correct. The operators cut alongside the backbone, below the lower rib, clear down to the kidney, to a depth of 3½ inches. The utmost nicety was required in order to strike the kidney, as half an inch variation would have done incalculable damage. The abscess was found, and over a pint of pus was removed after the incision had been made. The patient bore up through it all in a heroic manner. She is doing as well as could be expected, and there is every prospect that the operation will prove a complete success, and full recovery ensue.

DOMESTIC ECONOMY.

Sweeping Reduced to a Science.

No two women do their housework exactly the same. Each has some special branch in which she excels. One woman of my acquaintance has the art of sweeping reduced to a science. Here is her plan of work for a thorough sweeping:

As many articles of furniture as possible should be thoroughly dusted, then removed to another room. All articles of bric-a-brac, the ware on the washstand, tidies, everything, should be washed or dusted as the case may be and set in a clean place. Cover the heavy articles that cannot be moved; old sheets are nice and old dress skirts make good covers for upholstered chairs.

Now clean the ashes from the stove or grate and you are ready to sweep. Begin at the top, with a wall brush or broom wrapped in a clean cloth. Don't leave one cobweb. When you are ready to sweep the floor—well, every woman can sweep best her own way, I find. But be sure and dig out the corners.

When the doors and windows have been thrown open, and the dust has settled, dust your pictures—back as well as front—chandeliers and other dust-catchers. Remove the covers carefully from the furniture, wipe the dust from the carpet with a clean cloth wrung out of a pail of warm water, to which a teaspoonful of ammonia has been added. Wipe the windows, or wash them if necessary, and the worst half of your task is done.

The remaining duty is a pleasant one, merely the arranging of your household treasures as "pleaseth thee best." And lo! dust is thoroughly eradicated from the shrine of your household gods.—*Gray-eyed Widow.*

Ten Good Things to Know.

1. That milk which is turned or changed may be sweetened and rendered fit for use again by stirring in a little soda.
2. That salt will curdle new milk; hence, in preparing milk porridge, gravies, etc., the salt should not be added until the dish is prepared.
3. That fresh meat, after beginning to sour, will sweeten if placed out of doors in the cool of night.
4. That clear boiling water will remove tea stains and many fruit stains. Pour the water through the stain, and thus prevent it spreading over the fabric.
5. That ripe tomatoes will remove ink and other stains from white cloth; also from the hands.
6. That a tablespoonful of turpentine boiled with white clothes will aid in the whitening process.
7. That boiled starch is much improved by the addition of a little sperm salt or gum arabic dissolved.
8. That beeswax and salt will make rusty flat-irons as clean and smooth as glass. Tie a lump of wax in a rag and keep it for that purpose. When the irons are hot, rub them first with the wax rag, then scour with a paper or cloth sprinkled with salt.
9. That blue ointment and kerosene mixed in equal proportions and applied to the bedsteads is an unfailing bedbug remedy, as a coat of whitewash is for the walls of a log house.
10. That kerosene will soften boots and shoes that have been hardened by water, and render them as pliable as new.—*Pharmaceutical Record.*

DURABLE AND BRILLIANT WHITENESS.—One-half bushel of good lime, five pounds rock salt, dissolved, one-half pound whiting, four pounds ground rice, boiled to a thin paste, one-half pound clean grease. Slack the lime in a tight box or barrel, with hot water, keeping the box covered that the steam may not escape. It can be tinted if desired. Slack to the consistency of thick cream. Thin it when used, so that it will flow freely from the brush. If put on too thick it will flake off more or less when dried. The above is for outside work. For indoors, slack the lime as above, omitting the salt, grease and rice. Instead of thinning the creamy solution with water, use skim milk. This latter is a secret worth knowing.—*Exchange.*

CRACKER PIE.—Six crackers, piece of butter size of an egg, one cup sugar, one cup of boiling water, one teaspoon lemon flavoring.



A. T. DEWEY.

W. B. EWER.

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Business Announcements.

[NEW THIS ISSUE.]

Mowers—P. P. Mast & Co.
 Insurance—Butler & Haldan.
 Windmills—R. F. Wilson, Stockton, Cal.
 Creamery—"F. S. C.," Box 2617.
 Hay Rakes—Baker & Hamilton.
 Threshing Outfit—Mrs. E. S. Jones, Yuba City, Cal.
 Insurance—Home Mutual Ins. Co.
 Egg Food, Etc.—B. F. Wellington.
 Sickle Grinder—P. P. Mast & Co.
 Land Auction—McAfee & Baldwin.
 Agricultural Implements—H. C. Shaw, Stockton, Cal.
 Nevada Warehouse and Dock Co.
 Agricultural Implements—Hayley Bros. Hardware Co.
 Situation as Teacher—"R. A.," Box 2361.
 Poultry—S. W. Palin, Galt, Cal.
 Olive Trees—H. B. Pilkington, Santa Cruz.
 Dress Suits—C. S. Chaffee & Son, Mansfield Center, Conn.
 Salt—C. E. Whitney & Co.
 Soap—Capital Soap Co., Sacramento.
 Cattle Sale—Killip & Co.

See Advertising Columns.

The Week.

Again the peace and sunshine of California contrast with the tidings of tempests and disasters which come by wire from distant ports. It is an old story, it is true, but constantly it reappears in new forms to convince the Californian that he cannot be too glad and thankful for his heritage in this favored land. Just glance at the record of the week past: Thursday, windstorms and conflagrations in Dakota which cost millions; Saturday, the heaviest storm of snow, lightning, thunder and gales of wind prevailed along the Atlantic Coast, unroofing buildings, sinking ships and causing innumerable casualties, small and great. The details of these disasters fill columns of the daily

journals. In contrast, there are columns in our California exchanges bearing the details of spring showers and warm sunshine, green fields and blooming orchards—a very monotony of prosperity and comfort. The hearts of producers are all made glad by the prospects of full hands, heavy purses and light hearts.

Freights and Fruit Again.

The San Jose Board of Trade deserves full praise for bringing the matter of fruit freights prominently forward as its delegates did at the meeting of the State Board of Trade, as noted in last week's Rural. The fruit-growers in their own meetings have declared themselves on the subject, appointed their committees to urge a more mellow policy on the railways, etc., but it is exceedingly desirable that the matter be made a question of public concern, as it is likely to be now that it has been thrown into the lap of the State Board of Trade. The whole population of California is deeply interested in this matter. Every man who supplies anything to a fruit-grower, from a fruit-box nail to a piano; every one who serves him, from his cook to his dentist; every one who advises him, from his horse-doctor to his preacher—in fact the whole community of laborers, artisans, manufacturers, merchants and professional men, are deeply interested that the fruit-grower should be drawn safely out from this the last ditch he has fallen into.

Nor are the railways themselves less interested in the proposition. They ought not to be long in getting at the goose-golden-egg philosophy of this question. They are largely interested as carriers, and policy as carriers should dictate fostering rates for an industry which turns out as much weight in small compass as the fruit-growers and driers and canners do. But the railways—that is, our great corporation at this end of the line at least—are largely interested also in lands, and the question of the value of that land depends directly upon the profits of the fruit-growers. These giant land-owners seem quite active in sustaining enterprises likely to induce immigration, and they are wise in that; but where is the sense of spending money to bring people in unless an equal effort is made to take produce out at living rates? At present our growers are in deep doubt and concern; the canners are protesting and holding meetings, hoping to get relief. How long will it take the outside world to hear of these facts, and how many men will come to invest in California fruit properties when the idea gets abroad that the railroads take all there is in the business? Property is now appreciating and enterprise advancing upon the general idea that there will be great rewards in supplying California fruits and fruit products to the millions at the East. The railways have it in their own hands to determine how soon this idea shall be proclaimed and how soon the bottom shall drop out of the fruit and real estate markets. There is no use mincing words over this matter. The present rates are extortionate and give the mass of the profits to the transportation companies. This is not right; it is not decent; it is not good policy even to those who are just now receiving the lion's share, because, as sure as fate, they will commit financial hari-kari if they persist in their present course with the line of products specified.

We understand, of course, as we have previously intimated, that the evil is blamed upon the milliped, the Transcontinental Association, and that the feet that reach this immediate coast claim that, wriggle as they may, they cannot twist the rest of the worm. That may be so, but our local members of the association must keep up a vigorous effort that way, and they may have weapons by which they can enforce their views of the matter. To induce them to do this needs just such declarations as that which came to the State Board of Trade from San Jose. Let the whole people take it up. Let there be a hue and cry if need be, and then we shall see whether the railways have anything to make by checking the growth of the State as the continuance of their present policy certainly will do. Let them declare that they do not propose quietly to be sacrificed in the effort to make the Interstate Commerce law obnoxious.

We are glad to see that the canners of fruits propose to continue their agitation for fair rates. A meeting is called for Saturday, April

20th, at 2 P. M., at the rooms of the San Francisco (not State) Board of Trade, 202 Market St., at which it is said that the traffic agents of the Southern Pacific and the Santa Fe will be present. Respecting this matter, a member of the firm of A. Lusk & Co., who was chiefly instrumental in calling this meeting, said to a reporter of the Bulletin:

The rate on canned fruits last year was a very high one—so high that the volume of business transacted by the different canneries was very materially reduced. Since March 1st, the rate has advanced still more, which has caused a total cessation of business. The canners have been endeavoring for the past two months to obtain a lower rate from the railroad companies, but thus far their efforts have been without avail. The outlook before them at present is a very dubious one. They all have considerable stock on hand with no spot trade, and with the present rate acting against them the future trade on canned fruits during 1889 is liable to be a very limited one. We consider it not only to the interest of the canners, but of the people in general in California, and more particularly of the fruit-growers, that a low rate be granted us.

This is the idea exactly. Let every popular organization in California raise its voice, and we will see how much the claims to enterprise and development of the country on the part of these corporations amount to. It is positively and distinctly a shame and a disgrace that the grand producing resources and abilities of this coast should be handicapped, as it is clear they are and are to be unless something is speedily done.

University Agriculture.

As we briefly announced in our issue of March 23d, Prof. Hilgard declined the tender of official position in the Department of Agriculture at Washington. The Regents of the University have made better provision for the prosecution of work in the agricultural laboratories and experiment stations. It is currently but unofficially reported that at an executive meeting of the Regents last week several measures were adopted, and among them the following: The advancement of Prof. Hilgard's salary because of the arduous nature of his work and the fact that it encroaches heavily upon vacations; the provision for adequate local inspection of stations, that their work may be more intelligently directed and unified; the provision for an assistant qualified to take charge of viticultural experimentation and instruction; provision for adequate clerical services, etc. All these things are necessary for the relief of Prof. Hilgard and for the efficient prosecution of the work which has multiplied since the Hatch law came into effect; and the favoring action of the Regents will be acceptable to the agriculturists of the State.

The extra work of organizing and equipping the new experiment stations in Amador, Tulare, and San Luis Obispo counties, and the prosecution of the multitudinous details which have arisen, have prevented for some time the issuance of the University Bulletins, and have delayed the preparation of the annual report for 1888. This work will be reached in due time, especially now that fuller assistance has been provided for. There is now being distributed a pamphlet of 19 pages by Prof. Hilgard, which is a part of the report of the president of the University to the Board of Regents. It gives a general review of the work in hand, both in instruction and experimentation, and the enlarged facilities provided for both at Berkeley and the outlying stations. Concerning the effect of the recent occurrences upon the demand for instruction, Prof. Hilgard says:

While there has been no change in the personnel engaged in instruction in this department, and while during the first session covered by this report there was no material change either as regards the means for instruction or the attendance of students, a very marked change in both of the latter respects has occurred within the present year, in consequence of the erection of the new Experiment Station building, and its being fitted out with the proper appliances for convenient and effective work. Up to that time the department had no definite location, its rooms and laboratories being scattered in various parts of two buildings, one of which was the reverse of creditable both in outside appearance and inside appliances, although much good work has been done in it. The depressing effect exerted upon the department by this state of things has become apparent now that its various branches are conveniently and decently located in one building, adapted to its purposes, and having some room for future expansion. Not only are the lecture classes from two to three times larger than they have been since the department has ceased to

afford a convenient place of refuge for indolent students, but the desk room provided for laboratory students on the basis of the estimated increase for two or three years has been at once taken up by the active workers.

This gratifying condition of affairs in the classes directly in Prof. Hilgard's charge is also apparent in the classes in Horticulture and Economic Entomology, which are conducted by Mr. Wickson. The latter subject is especially popular, and much better facilities are now provided than ever before. The report says:

In the fitting up of the lecture-room on the second floor of the Experiment Station building, a table has been extended along the north side of the room which receives the light from four large windows and gives the class the illumination most desirable for entomological, and especially for microscopic work. This table is fitted with drawers for each student to keep his outfit of appliances, and with shelves above for the larger appliances and for bottled specimens. Two breeding cages, after the pattern of Professor Riley, United States Entomologist, have been secured, and three small compound microscopes have been purchased for the use of students. The foregoing, with the Ricksecker collection of coleoptera which was donated several years ago, constitute the entomological outfit of the department. It is exceedingly meager, considering the character and popularity of the work, but it is made the best of in class instruction.

The department of botany, in charge of Assistant Professor E. L. Greene, the well-known botanist, is now provided with far better room for work and for collections than ever before, and it is a most popular branch of University effort.

The report also has notes on the various lines of outdoor work in progress at Berkeley, to which we will allude at another time.

More Newspaper Foolery.

One of the latest newspaper frauds played out in the East and imported to this coast is that which advertises for gulls to send in their subscriptions to a new and unknown office, for a new and unknown paper, to be issued by an unknown company, with no responsible name published or attached thereto. They are urged to risk their money on the plea that the first subscriber sending \$1 for a year's subscription will receive \$10; 50th and 100th, each \$10; 200th, \$20; and so until the 1000th subscriber will get \$50, and "you may get a prize," etc. One reason that such swindles are not oftener exposed arises from the fact that those who get taken in hate to say anything about it.

THE AGRICULTURAL EXPERIMENT STATIONS.—Among the latest Washington telegrams is one stating that Secretary Rusk has issued a pamphlet history of the agricultural experiment stations which have been established under the recent law of Congress and are now conducting scientific and practical experiments in regard to soil tillage, manufactures, crops, stock-feeding, dairying and horticulture in various States. All the States and one Territory (Dakota) now have agricultural experiment stations. The total number in operation is 40, and, including branch stations, nearly 60. They employ more than 370 scientists and agriculturists, and will this year receive \$595,000 from the National Government and about \$125,000 from State and other sources. The most cordial feeling is said to exist between the stations and the Department of Agriculture, which is charged by Congress with the duty of supervising and aiding the work of the stations.

CYPRESS-HEDGE TREES DYING.—During the last few months many single trees here and there in the Berkeley cypress hedges have died, making unsightly openings, while adjacent trees in the rows seemed vigorous. An observing local horticulturist reports that with very rare exception the trees that have died have been those bearing very fine, feathery foliage, while the coarser-foliaged plants survive. This difference in the foliage of cypress seedlings has no doubt been noticed by many, and some have selected the fine foliage as superior for hedge planting. We would like to have observations from other readers who have been disappointed by the death of the trees, whether or not the victims have borne the finer foliage or not.

CATTLE BURNED.—The front car of a stock train on the Prescott & Arizona Central railroad last week took fire from a spark from the engine, and the entire carload of cattle, 42 in number, burned to death.

Notes From Colusa County.

[From Our Own Correspondent.]

Colusa county occupies a large portion of the area of the great Sacramento valley. It is bounded on the north by Tehama, south by Yolo, east by Sutter and Butte, and west by Mendocino and Lake. The southeast corner on the Sacramento river is 40 miles in a right line above Sacramento City. A line due north from San Francisco runs a little west of the center of the county. The county is just 60 miles from north to south, and will average in the neighborhood of 50 miles from east to west. The Sacramento river forms the eastern boundary for a distance of about 20 miles from the northern boundary, and the line then runs across east to Butte creek, and down that to Butte slough, and thence up that to the river, 18 miles north of the south boundary, and the river then forms its eastern boundary. Of the 2800 to 3000 square miles in the county, some 1500 lie in the Sacramento valley proper. As the summit of the Coast Range forms the western boundary, the balance of the county is mountains, low hills and smaller valleys. The valley portion of this balance we have estimated at 200 square miles, and the low, arable hills at 700 to 800 square miles. This is a vast extent of fertile lands. The mountain and hill ranges run north and south. Through the entire length of the county there is a series of ranges of hills running parallel with the Coast mountains; between these there are small, narrow valleys. In describing the physical geography of the Sacramento valley, a well-informed writer says:

"The whole of the Sacramento valley was once either an inland lake or an arm of the Bay of San Francisco. The wash from the mountains encroached year by year on the water, and made the valley. The deposits that came from the Sierras on the east and the Coast Range on the west, made the waters from the north keep a middle ground, and hence the Sacramento river runs down near the center of the valley. Above the mouth of Stony creek the deposits from the hills on either side have made a regular slope on down to the river; but below that point, the valley being much wider, the river banks have grown faster than the valley at the ends of the small creeks, and the consequence is that the river runs on a ridge, and the streams, which only run in wet winters, from the hills below empty into the trough thus formed. The overflow from the river also flows into this trough. This is on the west side. On the east side we have Butte creek running on a lower plane than the river, and the overflow of the river gets back into it, while it is lost in the tule basin of Sutter county. On the west side the head of the 'trough' is some six or seven miles below the mouth of Stony creek; but it is still some miles below that before any streams make into it from the foothills, or before any sloughs make out into it from the

river. The further south the more water in the trough and the wider it gets, until near the lower end of the county we have a tule basin. The average width of the trough and basin in Colusa county would be perhaps two and a half miles—say two and a half miles by forty."

The soil of Colusa county, like that of other parts of Northern California, is of great fertility. That close to the river is a light vegetable mold, mixed more or less with clay and sand. As the soil of the hills is good, and as the greater portion of the area of these hills is susceptible of cultivation, there is comparatively little waste land in Colusa county. As to climate, it cannot be denied but that the thermometer ranges high in the summer months, but the evenings and nights are cool, so that one feels refreshed after a night's rest. Colusa county is not too far away from the coast to feel the effects of a sea breeze, and almost every afternoon in summer a cooling breeze springs up. The range of productions in the county is very great. All the products of the temperate and northern tropical belts meet and grow side by side. Wheat has heretofore been the great staple of Colusa county, and there are wheat ranches within the limits which are the wonder of the State. But increased attention is being paid to the culture of fruit, as well as to a variety of other crops. All vegetables grow to great perfection, and numerous farmers are taking advantage of this fact by growing root crops and feeding the same to their stock. As the winters are mild, and as stock never has to be housed or receive further care than to give them enough to eat, it is quite evident that stock-raising must become a profitable industry. Under the late law of the Legislature, irrigation districts have been formed

in the country along the Sacramento river, and a ditch has been surveyed and planned to run through Colusa county some ten miles back from the river, near Willows, Williams, Arbuckle and other towns in that range. If this scheme is carried through, the lands will be greatly enhanced in value, and a failure of crops will be a thing of the past.

Winter Flooding at Brentwood.

In the vicinity of Colusa a system of irrigation is being pursued which seems to us well worthy of description. We select as the best example of a farm and orchard treated in this way, that of J. B. De Jarnatt. Mr. De Jarnatt's farm is situated one mile north of the town of Colusa, and comprises 240 acres of rich alluvial soil. Of this, 12 acres are in orchard, about equally divided between peaches, pears, prunes and apricots; 22 acres are in raisin grapes (Muscatel), about 80 acres are in alfalfa, and the balance is farmed to broomcorn and Egyptian corn. Five years ago this tract was nothing but a wheat-field. The original purchase included 270 acres, but two small tracts of 15 acres each have been sold to Mr. Nathan Cuttler and his son, Mr. Will Cuttler, who have planted them out principally to peaches. Immediately after Mr. De Jarnatt's purchase, he procured the services of a civil engineer, had levels run, levees and floodgates constructed, and thus inaugurated the first systematic plan of winter irrigation for land in Colusa county. He has demonstrated its great value. No finer orchard and vineyard can be shown in the State.

Mr. De Jarnatt's farm is divided into sections varying in size from 12 to 40 acres, each section being surrounded by a check or levee of sufficient height to allow water to accumulate over the land to a depth of from

24 to 30 inches. These levees are provided with floodgates at convenient points for receiving and discharging water. The main flume or headgate is eight feet wide, with strong double gates at front and rear, which, when raised, discharge water from the river into a ditch ten feet wide leading through the alfalfa-fields to the orchard, which latter is generally flooded first; then, closing down the orchard gate, the water fills the ditch and spreads over the alfalfa-fields, and when they are submerged to the height of the check levees, the headgates are closed down and the earth is allowed to drink up the entire quantity. As soon as this is done, the headgates are opened again, and the fields are flooded a second time, from whence the water is drawn off to the vineyard till that is supplied, and the irrigation is completed for the season.

Mr. De Jarnatt is the pioneer of Colusa county in this system of irrigation. Since he started, however, hundreds of acres have gone into fruit, and have been treated by a similar process of winter flooding. Bridgeford & Mulligan have a fruit and stock ranch of 50 acres not far from Mr. De Jarnatt. They have 20 acres planted to fruit—raisin grapes, peaches, Bartlett pears, prunes and apricots—while the balance is devoted to the growth of alfalfa and root crops. Hon. L. F. Moulton also has a magnificent 80-acre orchard across the river from Colusa, within a mile or so of the city, which is a grand improvement for the county.

The City of Colusa.

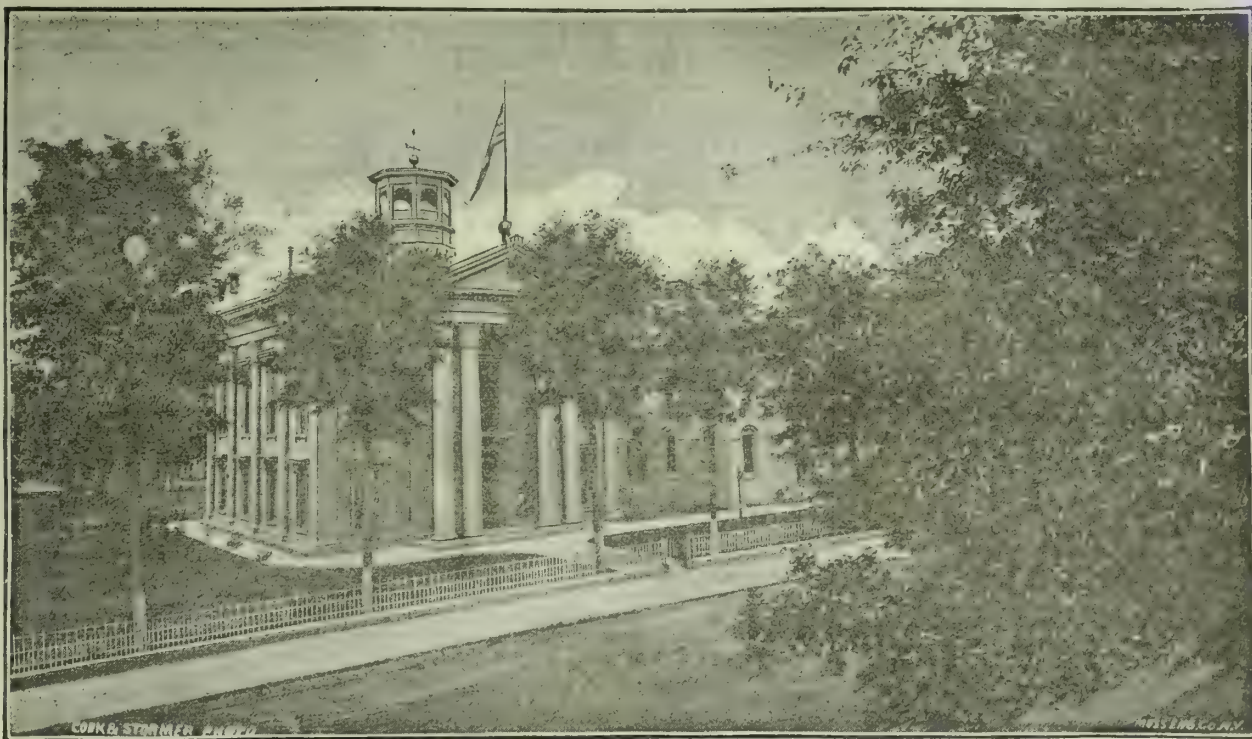
Colusa, the county seat and largest town, is situated in the southeastern part of the county, on the west side of the Sacramento river, and is surrounded by one of the richest agricultural districts in the State. It is in the midst of flourishing young orchards and vineyards, and bids fair to be one of the leading fruit centers of the Sacramento valley. Colusa is the river terminus of the Colusa & Lake railroad, which extends into a rich country, thus made tributary to this most favorably located town. It is by means of this railroad that it has connection with the main line of the Northern railroad, seven or eight miles to the westward. Colusa is now a prominent grain-storing and shipping-point. There are several fine public buildings and churches, first-class public schools, and many handsome residences.

A visitor cannot fail to be impressed with the solid character of the institutions at Colusa. The county buildings are substantial in appearance, as well as handsome, as can be well seen from the view of the county courthouse which is given herewith.

Other railroad towns of Colusa county are Willows, Williams, Maxwell, Arbuckle, Orland, Germantown and College City near the railway. The river towns of the county are Butte City, Princetown, St. John, Jacinto, Sycamore, Grand Island and Grimes' Landing, ranking in importance in about the order named.

H. G. P.

KANSAS is a rural State. Her meetings of the State Board of Agriculture show that the citizens use their brains and do not rely upon hand-farming alone. We have just received a copy of the 18th annual meeting of this body. It reflects credit upon the State, and will prove interesting reading to many outside of Kansas.



COURT HOUSE, COLUSA, CAL.



BRENTWOOD—OR CHARD AND VINEYARD OF J. B. DE JARNATT, COLUSA, CAL.

AGRICULTURAL NOTES.

CALIFORNIA.

Amador.

AT THE EXPERIMENT STATION.—*Jackson Ledger*, April 6: The olives are all in the ground, a splendid lot of promising little trees, and their culture may be the very best thing for our foothills. The first figs, cherries, peaches, vines and pears, with a little of everything, are in leaf. . . . Bids are received now for the construction of a dam and the definite erection of the water works. Moreover, Prof. Hilgard will be up this month, and will be made heartily welcome. Here are the names of a few Japanese trees Mr. Hansen has in his care. Persimmons are: Kuro Kume, Xayi Maru, Hyakume, Hachiya; these may be called regular jaw-breakers and can hardly be excelled by oranges like Gudusu, Kin Kan or Kurembo. Mr. Hansen has christened the reservoir-hill "Bella Vista."

Butte.

FISHING WITH HAKE AND PITCHFORK.—*Gridley Herald*, April 4: Many of the sloughs on the 'dobe lands west of town were filled brimful by the recent overflow of the Sacramento river and Butte creek, and large numbers of carp and catfish took refuge in them. When the water receded, a great portion of the fish were left in the sloughs and could not get out. Many of the ranchers availed themselves of the opportunity and have lived on fresh fish ever since, spearing them with pitchforks and, in some instances, raking them out of dry land with hoes or garden rakes. We hear of one instance where a rancher drove a hay-rake through a slough and landed over 200 pounds of carp and catfish at one haul. Several parties have salted down a barrel or two of fish for future use.

FENCING A STOCK RANGE.—*Reyman & Evans* have a gang of men at work constructing a barbed-wire fence around the tract of land they recently leased of the Spring Valley Gold Company. The tract is a trifle over six miles long and about 1½ miles wide. It will take a carload of barbed wire and several thousand posts—20 feet apart—to inclose the 6000 acres, which will be used as a stock range. It is remarkably well adapted for that purpose.

Colusa.

SOWING BARLEY.—*Colusa Sun*, April 6: Tully & Retherath and Dan Ainger on the Hamilton place are sowing barley on the land drowned out by the late flood. We have known of barley sown later than this date on overflowed land to make 50 bushels to the acre. Land once thoroughly wet can be depended upon for a crop of some sort.

THE CANNERY IS A GO.—Articles of incorporation have been filed. The directors for the first year are W. P. Harrington, A. S. McWilliams, E. A. Bridgford, J. E. DeJarnatt, W. T. Beville, L. L. Hickok and F. W. Willis, and the names of the above gentlemen are a guarantee of success.

Contra Costa.

WORSE THAN COYOTES.—*Antioch Ledger*, April 6: One night last week Dr. Parkison's premises were invaded by a predatory band of Antioch dogs and the chicken-yards and houses raided. Over 80 chickens, part of them laying hens and the remainder young and half-grown, were left dead, mutilated and strewn about the grounds. The town is infested with a nuisance of dogs. They make night hideous with their discordant barks, yelps and howls. They are a threat to safety and are fatal to comfort. The county offers a bounty for coyote scalps, but a coyote has some points of excellence that commend him. He is of a modest and retiring disposition; keeps aloof from the more frequented haunts of men, and only lifts up a complaining voice in the quiet of country pastures. When he invades the chicken-yards it is for the obvious purpose of obtaining a meal. He has, moreover, the positive merit of now and then securing a squirrel or jackrabbit. To the wild and worthless pack of night-raiding dogs no virtue, negative or positive, can be attributed. Give us a dog law.

Fresno.

GOOD EFFECTS OF RABBIT-DRIVING.—*Fresno Republican*, March 29: Early yesterday morning the streets of Fresno presented an appearance of unusual activity, while at every livery stable in the city business was more than rushing. The cause of the commotion was the rabbit-drive and by 7:30 o'clock fully 500 people had assembled near the Grand Central hotel, while as many more drove to the rendezvous. The Fresno division, joined by an immense number of people from the colonies and country, formed in line, and the drive commenced promptly at 9 o'clock. Those who had attended former drives were surprised at the unusually small number of rabbits scared up, and as the usual number escaped between the legs of the drivers, there was but a very small round-up. Not more than 150 rabbits were killed in the first drive, which, while it spoiled the fun of the drivers, was a pleasing sight to the people who live in the neighborhood, as it argued that but few of the destructive pests were left. After the rabbits corralled in the first round-up had been slaughtered, the line was re-formed and a second drive was started. It was amusing to see 400 or 500 men and boys chasing a single jack-rabbit—for there was but one scared up during the second drive. . . . At one time the rabbits threatened to ruin every

vineyard in the county, and it was to try and exterminate the pests that rabbit-driving was inaugurated. That it has been successful is proven not only by the drive of yesterday, but by all the drives held recently, none of which have amounted to anything. There are some localities, however, which need driving over badly, and if the residents of the neighborhoods referred to will only exert themselves a little they will be able to secure abundant help in killing every jack-rabbit in their locality.

WOOLLY LAMBS.—*Republican*, April 5: The lambs in question were emphatically so. Not, perhaps, that they were of superior stock, or had developed any unnatural wool-growing propensity, but that they were an embodiment of nutritious alfalfa. Call at the Board of Trade room, and you will be shown a fleece taken from one of said lambs at the age of four months which weighs six pounds, and another of four pounds. The donor of the bundle of wool is R. B. Harlan of Fresno city. The result shown above is a good demonstration of the worth of pure alfalfa for sheep.

Inyo.

FRUIT PROMISED.—*Independent*, April 6: The orchards around Independence now look beautiful. Peach trees are as full of blossoms as they can be, and their bright colors glow like immense bouquets. Apricots and nectarines are nearly done blooming and on many of them the young fruit is well set. Pear trees are very full of flowers and on many of them the young fruit is well set. Apple trees are out in full bloom.

Los Angeles.

POMONA FLOWERS.—*Progress*, April 4: The ladies having in charge the annual Pomona flower festival are very busy planning and preparing for that affair, which is to begin at the Opera House on Tuesday, April 23d, and will continue four days.

Marin.

BUTTER PROSPECTS.—*San Rafael Tocsin*: A well-known dairyman declares that the coming season will probably show the largest yield of butter in the history of Marin county. The cows everywhere are in a magnificent condition and the feed promises to be unprecedented. With the increasing yield, prices are shrinking, but still the net returns will make a splendid showing. . . . Dairywomen are often put to their wits' end to find milkers. In the whole Point Reyes and Olema district there is not an idle man. Wages are stiffening under the strain, and to-day \$30 a month and found is the very lowest that any man will look at. The hay and grain and other crops promise equally well.

Modoc.

WATER STORAGE.—*New Era*, March 30: Last Sunday a reporter visited the scene of Lauer's reclamation works. He has a force of men building a dam across Pit river, about nine miles from Alturas. It is a substantial structure, 200 feet across, from bank to bank, and 28 feet high. The timbers are placed in the shape of an inverted A, and are solidly imbedded in the hardpan. This dam will back the water for half a mile, and will be used as a storage reservoir. Down the river about four miles is another smaller dam, which raises the water sufficiently to enter the ditch, where it will be conveyed to the ranch near town. The ditch is about five miles in length, four feet wide and averages two feet in depth. Across the ravine near Sigourney's house, it was necessary to build a flume about 30 rods in length and about 30 feet high. . . . To-day the big dam will be closed and allowed to fill up, when sufficient water will be stored to irrigate the whole country during the time when irrigation is necessary. The entire work has been done under the immediate supervision of Mr. Lauer, assisted by Frank Colby and Pete Guler. When finished, the cost will not fall far short of \$20,000 and will add \$50,000 to the taxable property of Modoc county. . . . Lauer's enterprise could be duplicated with profit in many of the canyons leading into this valley.

San Bernardino.

ORANGE CROP.—*Citrograph*, April 6: Twenty-seven carloads of oranges have been billed from Redlands station, as against nine carloads last season. . . . More than 50 carloads of oranges have been shipped from this side of the river this season. This includes the settlements of Redlands, Lugonia, Crafton and Old San Bernardino. . . . There is a tremendous activity in orange-packing now, as the crop has to be moved within a short time. One day this week there were 75 cars loaded in this county. This is of itself a pretty good pointer to the shrewd business man as to where orange-growing is a business and not a pastime.

A BIG "BAHIA."—*Riverside Press*, April 6: A Washington Navel weighing 31 ounces, and measuring 16½ inches, was brought in last evening by Frank Howell, who has charge of W. R. Strong & Co.'s packing-house at Arlington. This is the largest one yet reported, 30 ounces being the largest heretofore. It is perfect in every respect, and was grown in Perley & Pattee's orchard.

San Diego.

PIMA CORN.—*South Chollas Cor. Record*, April 2: We have some acres of nice growing corn of the Pima and small Spanish, which we like for fowls, and the Pima makes good roasting ears. The Pima variety was sent me, originally, from Yuma, by J. W. Wescott of San Diego, who carried on business there some years ago. The Indians near Yuma plant the Pima corn in the rich bottom land of the Colorado, after the water gets off the land, and

claim to have green corn fit to eat in about four weeks after planting. I have always raised some, for if it doesn't grow more than two feet high, on account of hardness of soil or drought, there will be some corn to gather.

HARVESTING BY MACHINERY.—*National City Record*, April 4: This season will see an innovation in the way of harvesting crops south of this city, there being now more than sufficient ground under cultivation and planted with cereals to make the employment of machinery a profitable venture. James G. Copley has ordered a complete thrashing outfit of the Minnesota Chief pattern and will accommodate the farmers on the Otay and Tia Juana mesas when their barley, etc., is ready to be harvested. The outfit will consist of the thrasher, a traction engine and a barley crusher, and will have a capacity of 2000 sacks per day. Mr. Copley has 450 acres in grain on the Otay mesa himself, and states that some 40,000 sacks will be the total output on the two mesas, besides the hay, nearly all of which is the first crop, the growing of grain in that section being a comparatively new experiment.

A NATURAL FLOWER BED.—*San Jacinto Reg. ister*, April 4: The rare and beautiful flower-garden near the Hemet pipe factory is a unique sight, worth traveling a hundred miles to see, although it was planted by Nature's hand and tended by Nature's care. A dense mass of the most charming flowers surrounds you, seemingly for miles. Your horse wades in them shoulder deep; the buggy-wheels tangle in them; you can pluck them without moving from your seat. The flowers are lupines, belonging to the same plant family as peas and beans. They have a ravishing odor, reminding one of Eastern red clover, and bringing back a thousand memories of childhood's days. The growth is wonderfully luxuriant, a living testimonial of the wealth of the soil beneath and the power of the tropic sun above. One feels guilty in driving through it, destroying the brilliant blues and purples beneath his horse's feet, hearing the succulent stalks crush under the wheels, watching the magnificent towers of bloom go down on either hand.

Shasta.

IRRIGATION ON COW CREEK.—*Anderson Enterprise*, April 4: E. F. Buss has been working many months to secure interest enough from the property-owners along Cow creek to open a ditch a short distance below Millville that would water all the lands down the valley to the river. In John Hunting he found a strong adherent, and since last fall its building has been assured. Work progresses with a large number of men and teams. The ditch extended to the river will have to be flumed to the west side of the creek, two or three miles above the mouth, where water can be made to cover all the bottom lands of Mr. Beatty, Aaron Wells and Wm. Hawes. Between 3000 and 4000 acres of as choice bottom land as we have will come under the ditch.

Solano.

WELL-BORING ON GRIZZLY ISLAND.—*Suisun Republican*, March 15: Mr. Dutton upon Grizzly island has made a number of experiments in the matter of well-boring, and given us his experience in the matter. He says: "Being in the bottom lands of the lower Sacramento upon the slowly accumulated saline formation, where common mortar would not dwell, and being compelled to use continually the water of the river, it became necessary to seek for better water. With a heavy pile-driver and a 1200 pound hammer, it was designed to drive a two inch pipe to sweet water at a reasonable depth, and that with comparative ease. All indications were favorable down to 70 feet, where sand which settled tightly about the pipe was met and caused it, when struck by the hammer having a 10 or 12 foot fall, to double up and break, demonstrating that a pipe can hardly be driven through sand at any depth. When in this failure resulted, boring was resorted to. A 10 inch pipe was sunk, and for the first 60 feet tulle and gray mud or half clay was met; then followed a stratum of sand four or five feet thick, under which was loose tulle clay 24 feet thick, varying to harder clay to a depth of 110 feet, where very hard, firm blue clay was encountered and the surface pipe discontinued. Under this lies a stratum of firm sharp sand intermixed with smooth, coarse gravel, from which a stream of pure, cold, clear water rises to within three feet of the surface of the ground, and shows no sign of exhaustion. The well must be carefully cemented with pure Portland cement from top to bottom, and if rightly done any possessor of lands in the basin of Suisun bay can procure pure, sweet water, and, so far as tried, in any desired quantity."

PINKNEY ABATING.—*Dixon Tribune*, April 6: The horses that were sick on the McMahon farm are improving. The veterinary surgeon pronounced the disease pinkney fever. Half a dozen of the best animals died, and many others were only saved by careful treatment. The ravages of the disease were greatest during the stormy weather. Sunshine and warm weather seem to have had a very beneficial effect upon the diseased animals, and no more fatal cases are anticipated.

EARLY BERRIES.—*C. Linsen*, on Lone Tree island, a short distance above Collinsville, made his first shipment of strawberries on Tuesday. Last season he sent the first blackberries that were in the market, which brought 40 cents per pound. He sold from one acre of blackberries, the second year's growth and first year's picking, \$350 worth. He has planted

7 acres in blackberries, 3 acres in raspberries, 2½ acres in strawberries and 4½ acres in asparagus. The island is opposite the lower end of Sherman, and if reclaimed would be most valuable.

Stanislaus.

RYE, WHEAT AND BARLEY.—*Modesto News*, April 5: We were this morning shown some fine samples of rye and wheat, grown on the land of Joseph Blanc, 13 miles southeast of Modesto. The rye is all headed out and measures five feet in height, and the wheat is over three feet high, with the heads just beginning to form. Mr. Blanc has 350 acres of rye, similar to the above, and 150 acres of wheat. Both of the above were sown in November. Mr. B. has a large tract of winter-sown wheat also that is looking splendidly. . . . We were to-day shown some excellent samples of barley and wheat grown eight miles from Newman in the Coast Range foothills. The barley was about five feet tall in full head and was grown on the ranch of James Johnson, while the wheat was six feet high and of a healthy, sturdy growth, from the ranch of W. F. Draper. The West Side is one monster grain field and the outlook for a mammoth crop the best that it has ever been.

Sutter.

AN OLIVE TREE FROM SPAIN.—*Appeal*, April 5: Several months ago Norman Rideout made arrangements to procure a Spanish olive tree, of the Sevillans Gordal variety, from Spain. It was to be of good size, so that he could obtain slips and graftings for distribution here. The tree arrived recently in pretty fair condition, and has been planted at what is to be known as Wilson, Sutter county. Mr. Rideout will have it cared for and given every chance to grow. The tree, including freight, cost over \$100, delivered in Marysville. The most interesting fact to intending olive-planters in connection with this tree is that the several hundred pounds of earth which came about the roots was of the very reddest clay, similar to that found in all the foothills, and the kind in which the olive trees in Spain thrive best.

Ventura.

A GRAPEVINE RIVALING SANTA BARBARA'S.—*Ventura Free Press*, April 5: The big grapevine on the little ranch just above the school-house near A. D. Barnard's place, on the Nordhoff road, is now, by actual measurement, 54 inches in circumference at one foot from the ground. Two years ago it measured but 49 inches at the same place, thus showing a growth of five inches in two years. At a height of 6 feet from the ground its circumference is 58 inches. Some 7 or 8 feet from the ground the vine forks, the larger branch measuring 38 inches in circumference. This is believed to be the largest grapevine in the State, if not in the world. It was set out 31 years ago and never fails of a yield of grapes every season.

Yolo.

APRICOTS.—*Winters Express*, April 6: W. J. Pleasant was in from Pleasant valley on Monday morning. He says the apricot crop will be short as compared with last year, but that it means larger fruit, better prices and less expense to pick and pack it. . . . We have had on exhibition in our office window the past week a small limb, cut from a Pringle apricot tree on H. G. Finch's place, by T. E. Boyd, who has it rented, upon which there are 27 apricots as large as marbles—say one-half inch in diameter. Mr. Boyd informed us that his trees have an excellent crop on them, and if they turn out as they now give promise of doing, he will have almost an average crop.

Yuba.

MARYSVILLE MORSELS.—*Appeal*, April 5: The presence of the English sparrow has become very noticeable within the past few days. Quite a number have made their nests in the eaves of the courthouse. . . . In many of the yards of this city orange trees have been allowed to hold the fruit, to show visitors the staying qualities of this citrus belt. . . . An experiment is being made by John Stevenson on ten acres of the 160 which he owns on the south bank of the Yuba and west of the D-street bridge. On this ten acres, which has been grubbed and cleared, he has placed rich manure, and mixed it with the soil. He will now plant alfalfa, and if it grows successfully will prepare a'll the rest of the land which he owns there in a similar manner. . . . A careful examination of the young Bartlett pear trees in Kertchem's orchard, west of town, shows that they were not injured by the water which stood on them recently, and they are growing very rapidly.

IN PRAISE OF EUCALYPTUS.—*Dr. David Powell*, president of the Board of Health, says that the people of this city or any other city similarly situated as regards elevation and water surroundings, are doing a foolish thing when they cut down the large gum trees that have for years grown in the yards and on the sidewalks. These trees are conducive to health, for they absorb moisture that would otherwise tend to create malaria. He advises all who want shade trees and health to plant the blue or red Australian gum tree. He says that these trees are preferable to the best cement sidewalk made, and thinks that taking them up should be prohibited.

EARLY STRAWBERRIES.—*Appeal*, April 6: H. Falk shipped to Virginia City last evening, by express, a 20-pound case of strawberries. This is the first shipment of the berries from Marysville this season. Last year the first shipment from here was made eight days later.

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Winters Early Fruit Belt,
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This property is part of the McMahan and Yount Ranch, located at the base of the foot-
hills about 4 1/2 miles northwest of the town of Winters, Yolo Co., Cal.
It may properly be called a part of the celebrated Pleasants Valley, which adjoins it on the
south, where the fruit from the foothill orchards has achieved a far and wide-spread celebrity
for its earliest and delicious flavor. Here foothill land is eagerly bought up whenever offered
for sale, at from \$100 to \$150 per acre. The property we offer is in every respect as good, but as
it is the first subdivision of a large holding heretofore devoted almost exclusively to stock-rais-
ing, the first sales of land will necessarily result in low prices, and buyers will reap the
benefit of a

Heavy Increase in Values,

Within a brief period of time. It must not be inferred, however, that fruit-growing on this land
is by any means an experiment. There is a small orchard of assorted fruit trees and a full-
bearing orange tree, near the present dwelling, and purchasers can determine from these the
adaptability of the soil, although the trees have been little cared for and scarcely ever cultivated.

All Tillable Land.

This property consists of small valleys surrounded by low-rolling hills, upon which there
are oak and other trees in scattering groups. There are numerous sites for pretty homes and
charming slopes for orchards and vineyards on these elevated places.

The Soil

Is a rich chocolate-colored loam, and has been pronounced by several of the leading fruit-growers
in Vaca Valley especially adapted to the growing of peaches, apricots, almonds and oranges.

No Irrigation.

The rainfall in this section is from 24 to 27 inches; the heaviest being near the foothills.
Such a thing as a failure of crops is therefore unknown. Excellent water for domestic purposes
is obtained at a depth of about 25 feet.

A Delightful Excursion



**Through the Vaca
Valley and Win-
ters Orchards.**

Those who have visited this beautiful section will appreciate the pleasure of a day's ex-
cursion there. Those who have not been, should not fail to take advantage of the cheap rates
of this excursion to spend a day in the country. We will run a special train from San Francisco,
Saturday, April 20th, at 7 o'clock A. M., stopping only at Benicia, Elmira and Vacaville, (un-
less requested beforehand to stop elsewhere) at the following rates:

Round-Trip Tickets to WINTERS

FROM SAN FRANCISCO, OAKLAND AND BENICIA,

\$2.50.....TICKETS ONLY.....\$2.50

FROM ELMIRA AND VACAVILLE TO WINTERS,

75 cts.....TICKETS ONLY.....75 cts.

TIME TABLE.

LEAVE SAN FRANCISCO.....	7:00 A. M.	ARRIVE AT WINTERS.....	10:15 A. M.
" ELMIRA.....	9:40 A. M.	LEAVE WINTERS ABOUT.....	5:00 P. M.
" VACAVILLE.....	9:45 A. M.	ARRIVE AT SAN FRANCISCO ABOUT.....	8:30 P. M.

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TERMS OF SALE: Only one-third cash, balance in 2 and 3 years, with interest at the rate of
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Remember the day, remember the hour, and bear in mind that we intend to sell
you good fruit land at absolutely your own price.

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Vehicles from Winters to McMahan & Yount Ranch **FREE.**

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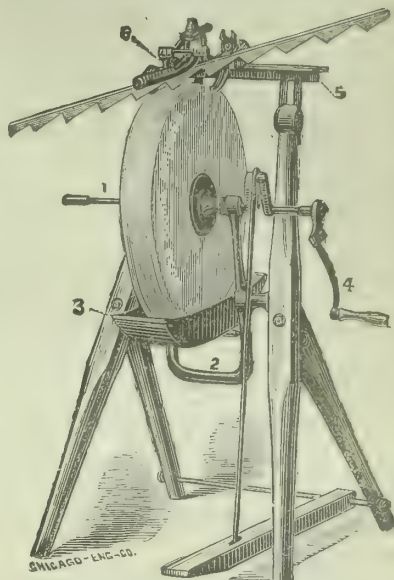
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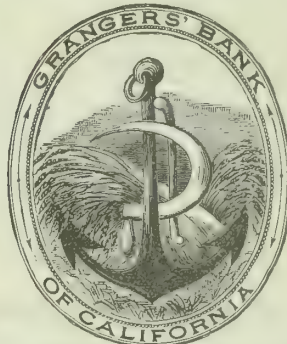
ONE MAN CAN GRIND A SICKLE
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every section will be ground to a TRUE BEVEL as when
it came from the factory.

Price \$8.

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Capital paid up in gold coin..... 624,160
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ALBERT MONTELLIER.....Cashier and Manager
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The Washington Centenary.

A Proclamation.

By the President of the United States of America: A hundred years have passed since the Government which our forefathers founded was formally organized. At noon on the 30th day of April, 1789, in the city of New York and in the presence of an assemblage of heroic men whose patriotic devotion had led the colonies to victory and independence, George Washington took the oath of office as chief magistrate of the new-born republic. This impressive act was preceded at 9 o'clock in the morning in all the churches of the city by prayer for God's blessing on the Government and its first President. The centennial of this illustrious event in our history has been declared a general holiday by Act of Congress, to the end that the people of the whole country may join in commemorative exercises appropriate to the day. In order that the joy of the occasion may be associated with deep thankfulness in the minds of the people for all our blessings in the past, and devout supplication to God for their gracious continuance in the future, representatives of religious creeds, both Christian and Hebrew, have memorialized the Government to designate an hour for prayer and thanksgiving on that day.

Now, therefore, I, Benjamin Harrison, President of the United States of America, in response to this pious and reasonable request, do recommend that Tuesday, April 30th, at the hour of 9 o'clock in the morning, the people of the entire country repair to their respective places of divine worship to implore the favor of God that the blessings of liberty, prosperity and peace may abide with us as a people, and that His hand may lead us in paths of righteousness and good deeds.

In witness whereof, I have hereunto set my name and caused the seal of the United States of America to be affixed. Done in the city of Washington this 4th day of April, in the year of our Lord 1889, and of the independence of the United States the 114th.

By the President, BENJAMIN HARRISON.
JAMES G. BLAINE, Secretary of State.

The Governor has issued the following proclamation:

EXECUTIVE DEPARTMENT,
STATE OF CALIFORNIA,
SACRAMENTO, March 30, 1889.

To all whom these presents shall come—GREETING: Whereas, on April 30, 1789, the first President of the United States, George Washington, was inaugurated in the city of New York, this date—as the formal beginning of the present Government of this country—marks a period in the history of the Government of the people, by and for themselves; and as such it is appropriate that the centenary anniversary of this date be observed by the people of this State.

Now, therefore, I, R. W. Waterman, Governor of the State of California, by virtue of the power conferred upon me by the Constitution and laws of this State, do hereby declare Tuesday, April 30, 1889, the centennial of the foundation of the constitutional Government of the United States, and the inauguration of President Washington, a legal holiday; and request that each citizen within the confines of this State refrain from pursuing his usual vocation and so observe the day that he may better appreciate the blessings and glory of American citizenship.

Given under my hand and seal on the day above written.
R. W. WATERMAN,
Governor.

Attest: W. C. HENDRICKS, Sec'y of State.

Bounty for Artesian Wells in Nevada.

Following is a copy of the substitute Artesian Well bill, which has passed both houses of the Nevada Legislature:

SECTION 1. Section one of said Act is hereby amended to read as follows:

SEC. 1. Every person, firm, company, corporation or association that shall, after the passage of this Act, commence the sinking of artesian wells, shall be entitled for sinking such artesian well, where flowing water is obtained, the following specified sums: For the first 200 feet, \$1.25 per foot; for the third 100 feet, \$1.50 per foot; for the fourth 100 feet, \$2 per foot; for the fifth 100 feet, \$2.20 per foot; for the sixth 100 feet, \$2.50 per foot; for the seventh 100 feet, \$3 per foot; for the eighth 100 feet, \$3.50 per foot; for the ninth 100 feet, \$4 per foot; for the tenth 100 feet, \$4.50 per foot; for all depths exceeding 1000 feet, \$5 for each and every foot below the said 1000 feet, and an additional bounty of \$1000 for every well sunk to the depth of 1000 feet or more, said well to furnish a flow of 20,000 gallons of water every 24 hours for 30 days successively. Said sums to be paid in the manner provided for in Sections 4 and 5 of this Act, provided that no bounty shall be paid on any well which does not furnish 7000 gallons of water in 24 hours, flowing continuously for 30 days; and provided, further, that no two wells should receive a bounty if located in the same county.

Harvesting with the Stripper.

EDITORS PRESS:—I notice in different papers items in regard to a machine called the Australian stripper for harvesting and thrashing grain. I would like to inquire through your valued paper of those having used this machine if it will do good work on hilly land where a header does well, but too steep for a Combined harvester. In a great many valleys in the foothills it is expensive and difficult to get heavy thrashing machinery around. We cannot get our grain thrashed at the right time, and often there is considerable loss by having to wait, and something of this kind is just what is wanted.

—M. L. CONKLIN, *Newville, Colusa Co., Cal.*

DAIRYMAN BURNED OUT. — Collinsville, April 4.—The house, barn and dairy-house belonging to Mr. Dutton, at Dutton's Landing, occupied by Mr. Burgetta, were destroyed by fire last Monday. The dairy-house had just been filled with valuable machinery. The buildings were old and perhaps worth \$2000.

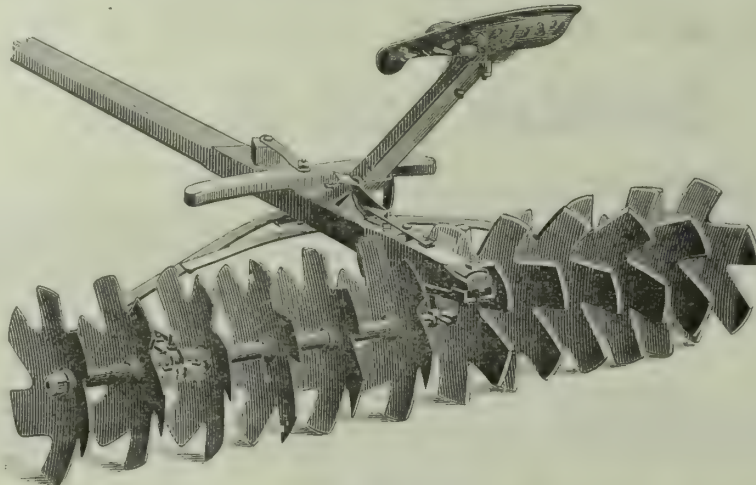
Storing Fruit.

EDITORS PRESS:—In your issue of March 23 I read an article from Edward N. Moore, Lafayette, Contra Costa Co., Cal., asking questions about storing, marketing fruit, etc. I have had some little experience in storing and keeping fruit and have now on exhibition in a show-case in the California market, San Francisco, quite a large variety of fruit stored, which everybody can see and examine. It costs nothing to look at it, and anybody interested in fruit is invited to call and see it.

I. ALLEGRETTI.

West Berkeley, March 25, 1889.

The Santa Rosa Democrat says that J. H. Hunt of Sebastopol built a cold-storage house last year which cost but \$500 and was more than paid for by the profit realized on the 700 boxes of apples which have found a ready market within the past month. The house is square, with double floor, ceiling and walls. The latter are eight inches thick and filled with sawdust; likewise the floor and ceiling. As soon as the apples are picked from the trees they are placed on trays, simply constructed of 2x3 lumber and laths. These trays are taken to the storage-house and placed one on top of the other in such a manner that the fruit of one tray does not come in contact with that of



CLARK'S CUTAWAY HARROW MANUFACTURED BY THE HIGGANUM M'FG. CO.

another. The tiers are so arranged as to permit of a free passage of air when it is desired, which is generally on cold nights. During the day the ventilators are closed and the house is made perfectly air-tight. Great care must be taken when the ventilators are open to prevent the access of moisture to the interior of the building, else the quality of the fruit will be greatly impaired. Of the 900 boxes of fruit placed in the house last fall, 750 were preserved in good condition without being once sorted over.

List of U.S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING MARCH 26, 1889,

400,157.—ROCK-CRUSHER—Geo. E. Ames, S. F.
400,034.—CABLE-TUBE PROTECTOR—H. F. Aschbeck, S. F.
400,201.—SEPARATOR—Finch & Cross, S. F.
400,401.—PISTON WATER-METER—Frederick Gutzkow, S. F.
400,216.—CONCENTRATOR—J. A. Johnson, S. F.
400,220.—HARROW AND CULTIVATOR—S. W. Kilpatrick, Gilroy, Cal.
400,114.—AMALGAMATOR—N. L. Raber, Corvallis, Ogn.
400,372.—LAMP-SHADE PROTECTOR—G. A. Tank, S. F.
400,155.—WELL-CRIB—W. H. Williscraft, Juniper, A. T.
400,083.—FENCING—E. Hawes, Sacramento, Cal.

NOTE.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

SHORTHORN SALE AT SACRAMENTO.—We learn from the *Record-Union* that the sale of Mr. Combs' cattle at Agricultural Park on the 4th inst. was well attended, and the bidding was spirited. The principal buyers were H. J. Palmer of Knights Landing; Elias Shinn of Butte; D. N. Hershey of Yolo; Mrs. J. F. McCauley of Galt; R. B. Blowers of Woodland; P. S. Ohiles of Davisville; J. B. Yount of Dixon; J. Peters of Yuba City; R. S. Carey and Buckman & Carragher of Sacramento. There were 88 head of stock and the prices amounted to \$6500.

GEN. N. P. CHIPMAN of Red Bluff was in the city last week, and a welcome caller at the office of the Rural Press—which he thinks should have 10,000 more subscribers on the Pacific Slope. We agree with him, don't you? And can't you send us one or two more?

Clark's Cutaway Harrow.

Of this implement, of which an engraving is given herewith, the following is condensed from the *New England Homestead* of recent date:

A new implement by the Higganum Manufacturing Corporation of Higganum, Conn., is called Clark's cutaway harrow and seeder. To briefly describe it, one could say it is a disk harrow with six notches cut in each disk. Each wheel revolves, and besides cutting with the part of the edge that is left (and made very sharp), each angle in the disk has an edged side that slides over a sod or lump of earth and slices it perfectly with no effort from the team whatever. In fact, this motion favors the horses, as it forces the harrow ahead. But this is not all it accomplishes. Like Clark's flexible disk harrow the Higganum Co. have on the market, the Cutaway is provided with the new mechanical movement of ball and socket joint, where the wings of the harrow connect at an angle under the end of the pole. A connection of this kind allows the axles to revolve at distinct angles, and besides cutting and slicing, the implement tears and twists the sod and mixes the soil, putting that which is on the top under, and bringing up the lower earth so far as it reaches. This can be regulated by weighting the drag. With all this motion, there is but little of the side-displacement of soil that is so objectionable. Considering these movements, one cannot fail to reason what a

perfect seeder it must prove. Although this marvel has only been on trial since May, it has been tried East and West, on the worst land it was possible to obtain, with the best results in smoothing and mellowing; and when the grass, oats, rye or corn has come up, it shows how even is the work of the Cutaway harrow and seeder in broadcasting. The seed is sown to the very edge of stones or the land with the utmost precision. The seeding attachment is placed on the pole and its power obtained from the revolving disks. The 12-disk harrow, illustrated, has 72 blades and 264 inches of positive cutting edge, and it works clearer and cleaner in trash or stubble than any pattern ever tried. The notched and hardened steel disks are so arranged on the arms that the spaces come to the surface of the ground, one at a time, with mechanical exactness, and no uneven motion can be detected. When desiring to take the implement afield or on the highway, a single movement of the lever will straighten the axle and it can be drawn off easily by one man.

THE AMERICAN FARMER'S MANUAL for 1889 a quarto pamphlet, issued by Peter Henderson & Co., the veteran seedmen of 35 and 37 Cortlandt street, New York, contains an essay on "Pastures and their Formation," illustrated descriptions of various natural grasses adapted to all soils, climates and conditions in the United States, clovers, fodder plants, grains, corns and roots for stock, together with a variety of useful tables and memoranda for farmers. It will be mailed free to any address on application to the publishers, as above.

BET ROOT SUGAR IN NEBRASKA.—Nebraska, it is said, will enter this year upon the manufacture of beet-root sugar on a scale of some magnitude. Those who will engage in the culture are mostly Germans who have been skilled in the raising of the sugar beet in the old country, and a large sum has been subscribed to secure the production of the beet sugar in the market. It is said that the soil is adapted to the cultivation of beets and the climate favorable, but this can be claimed only after the experiment has been fully tried.

HOLSTEINS.—Smiths, Powell & Lamb of Syracuse, N. Y., the well-known importers and breeders of Holstein-Friesians, have just issued a new catalogue of 255 pages which is bristling with facts of the wonderful deeds of this famous breed of cattle, and should be read by all breeders.

THE FIRST RASPBERRIES of the season appeared in the San Francisco market Friday, April 5th, and were sold by Eveleth & Nash for 75 cents a basket. They came from P. Morgan of San Leandro.

The Late Arthur Nahl.

Arthur Nahl, well known all over the State as a pioneer Californian artist, died suddenly of heart disease on the ferry-boat, while on his way to his home in Alameda on the 8th inst. He came to America from Hesse-Cassel 40 years ago, and has resided most of this time in San Francisco. Mr. Nahl sketched and painted many scenes of early California life, and drew for the magazines and pictorials of pioneer San Francisco, numbers of illustrations of scenes and incidents of those times. He excelled in animal and figure painting, and of late years has devoted his brush mainly to portraiture, in which he was very successful. His rare gallery, embracing a number of paintings by the "Old Masters," among which were portraits of Mr. Nahl's kinsmen who were notable artists for several generations, is one that for years has attracted attention through private exhibition to many of our art-loving people. He leaves a remarkable gallery.

Mr. Nahl was always very fond of athletics, and he and his brother had a small gymnasium at their home, on Telegraph hill, long before there were any public institutions of the kind in this city. The interest shown in this induced him to take steps to organize a club, and the Olympic club was the result, he having been the founder of that flourishing institution. For many years he was a leading member, though of late he has taken no active part.

Mr. Nahl had a host of warm friends. He was a good man and citizen, an able artist, industrious and steady, earning the respect of all with whom he came in contact. It is rare to see one hold so well-known a leading position for so long. Every one spoke well of him and his work. His name is linked with the history and development of California. Such men are rarely met, and their places, once vacant, are seldom filled. Mr. Nahl leaves a widow and six children. He has resided in Alameda for 20 years, living in a handsome home which his industry had provided for his family.

Their Candid Opinions.

Under date of April 2d, C. F. R. writes us from Los Angeles as follows: "Please find enclosed \$3 for renewal of my subscription to the best agricultural paper in the United States, namely, the Rural Press."

A Great Mistake.

R. D. M. says: "Indeed, it's a great mistake for any one living on a farm to be a week without a copy of the Rural Press."

A Friend of Long Standing.

D. E. R., Benicia, thinks "We cannot do without the Rural, anyway, for it seems as one of the family, having been in my father's and my own most of the time since its foundation."

We are happy in receiving many such testimonials from our subscribers; they are ever welcome.

EVERY LADY WANTS A SILK DRESS.

This is your opportunity. A new departure. Silks direct from the manufacturers to you. Our reduced prices bring the best goods within reach of all. We are the only manufacturers in the U. S. selling direct to consumers.

You take no risk. We warrant every piece of goods as represented, or money refunded. See our references. We are the oldest Silk Manufacturers in the U. S. Established in 1838, with over 50 years experience.

We guarantee the CHAFFEE DRESS SILKS, for richness of color, superior finish and wearing qualities, to be unexcelled by any make of Black Silks in the World. We offer these Dress Silks in Gros Grains, Satins, Surahs, Faille Francaise and Aida Cloths, in Blacks only. We send to all parts of the U. S. It will cost you only a postal card to see for yourself. Send a postal and we will forward you SAMPLES FREE with prices.

O. S. CHAFFEE & SON, Mansfield Centre, Conn.

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IMPROVED!
KING OF ALFALFA CUTTERS.

AGENTS WANTED.

Only Two Horses required to
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Heavy Alfalfa.

NO JOINT IN FINGER BAR.

Pilman Short and Strong.

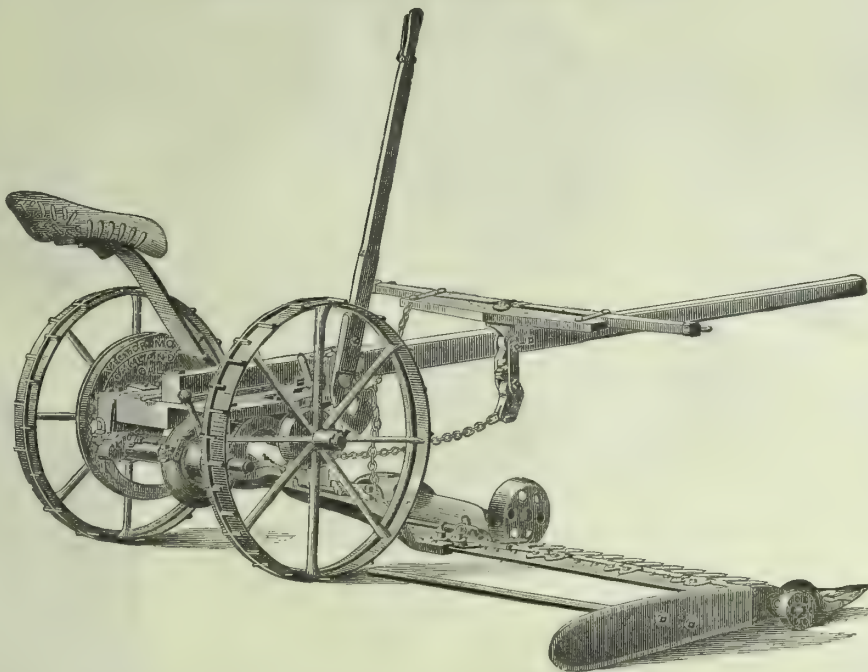
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Cutting Apparatus.

WILL REPLACE

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Any Part Found Defective

Gun Metal Bearings



Guaranteed to do More and Better Work,
with Less Draft upon the
Horses, than any other
Machine made.

WE GUARANTEE
Construction,
Material and
Operation in the Field.

FOUR SIZES:

4 Feet Cut,
4½ Feet Cut,
5 Feet Cut,
6 Feet Cut,

No Side-Draft.

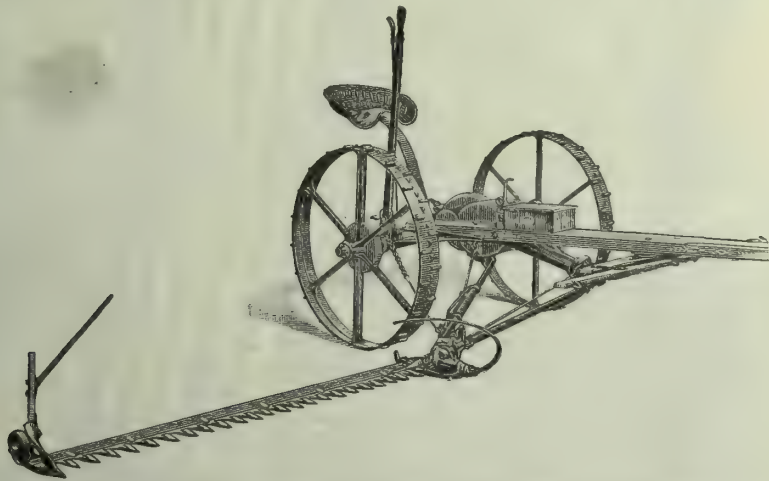
IF THERE IS NO AGENT FOR THE VICTOR IN YOUR VICINITY, WRITE US DIRECT FOR PRICES and TERMS.

JUDSON MANUFACTURING CO.,

14 & 16 Fremont St.,

San Francisco.

FIRST IN THE FIELD!
THE DEERING MOWER!



READ THE FOLLOWING LETTERS; THEY TELL THE STORY.

NATIONAL CITY, CAL., March 13, 1889.

W. C. Rarig, San Francisco—DEAR SIR: We felt the importance of ascertaining the true value of your 1889 Mowers and have taken great pains to encompass the question thoroughly and effectually before endorsing and offering them to our customers—remembering David Crockett's grand advice, "Be sure you are right then go ahead." Upon careful inquiry we were referred to Messrs. Thomson Bros. of San Pasqual as owners of extensive alfalfa fields, and generally known as practical men with large experience in machinery—being regarded as experts. We approached them as strangers and submitted our proposition. They said that under no circumstances or considerations would they entertain a proposition to purchase any mower except the Buckeye, their last year's purchases of other makes being wholly unsatisfactory. We waived the idea of sale and asked for their unbiased judgment upon trial so as to more carefully determine a safe policy in ordering forward a quantity of the 1889 Machines with the advanced improvements.

With great satisfaction we enclose and submit their voluntary statement, and assure you that the test was under our own eye, with our best and long-experienced agent in support, and was crucial in every particular.

You can now move ahead with perfect confidence.

We have wired the factory for two carloads, and you can rest assured that we shall require at least one and probably two carloads in addition.

Oh yes, Mr. Thomson bought both the 4½-foot cut and 6-foot cut machines, and a neighbor joined him in saying that any one wanting a mower would certainly buy the New Deering 4½-foot cut, or Giant 6-foot cut, if they saw them in operation.

(Signed.)

ISHAM, GORDON & CO., Agents.

THOMSON BROS.' RANCHO, SAN PASQUAL, CAL., March 13, 1889.

Messrs. Isham, Gordon & Co., National City, Cal.—GENTLEMEN: After testing your 1889 New Deering and 6-ft. cut Giant Deering Mowers in our heaviest alfalfa, we unhesitatingly say that they are a great success. The draft is remarkably light. The 2½-inch section a striking improvement. The tilting by a simple movement of the foot seems to us perfect. The supplemental shoe is a valuable feature. The machines, as a whole, we pronounce a grand triumph of mechanical skill.

As a matter of fact the 6-foot cut Giant, drawn by our light team, appears to us as easy draft as the regular 4½-foot cut of other makes. We feel that we can confidently recommend them as being the best.

The Buckeye has always been our favorite until this day. Yours very truly,

(Signed.)

THOMSON BROS.

SEE OUR AGENTS—in every town in the State—or write to us for descriptive catalogues.

A FULL STOCK OF MOWERS,

Also EXTRA PARTS, always on hand. Orders filled promptly on a moment's notice.

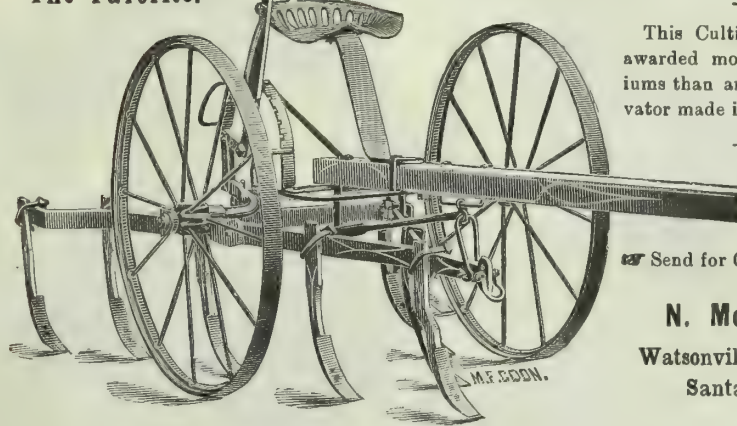
W. C. RARIG, General Agent,

No. 11 Bluxome Street, near Fourth, - SAN FRANCISCO, CAL.

McLEAN'S ORCHARD AND FIELD CULTIVATOR.

Will do a Greater Variety of Work than any
Cultivator on the Pacific Coast.

The Favorite.



This Cultivator has been
awarded more First Prem-
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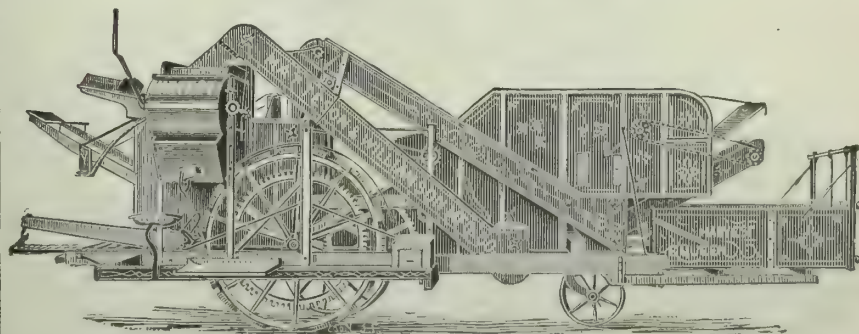
N. McLEAN,

Watsonville,

Santa Cruz Co.,

California

THE "HARVEST QUEEN"
IN THE LEAD!



The Queen Leading for 1889

IT IS SUPERIOR TO EVERY THING OF ITS CLASS.

Its Record is the Best of any now before the public.

Send for Circulars and Testimonials to

MATTESON & WILLIAMSON M'FG CO., Stockton, Cal.

Fashion Notes.

Ladies' Bonnet

FIG. 1.—The crown of this bonnet is formed of pale-mode *crepe de Chine*, which is laid in folds that, though full, do not seem awkward on so small a shape. A frill of mode lace outlined with gold thread stands up in coronet-fashion against the crown, and next to it are stately grasses and pale, creamy blossoms, forming a floral crown. On the left side of the crown is placed a long-looped bow of mode grosgrain ribbon that has a narrow satin edge of a darker shade. The ties are of the same kind of ribbon and are looped in a formal fashion just under the chin.

Girls' Dress.

FIG. 2.—The dress is here shown developed in green suit goods, with velvet of a darker shade and fancy stitching for trimming. The outside portion of the waist is made over a lining, the adjustment of which is effected by under-arm and shoulder seams. The waist proper is seamless at the shoulders, being cut somewhat in the Garibaldi style; and it is sewed with the lining into the under-arm seams. The waist is smocked in yoke style to form three V's in the front and

The mode is especially adapted to combinations of materials and colors. All kinds of woollens and silks will also look well made up in this way. Bows of ribbon, fancy braid or braiding in metallic soutache, etc., may be substituted for the garniture here pictured, with good effect.

The large flaring hat has its brim outlined

The skirt is in the ordinary four-gored style and is depicted made of dark green dress goods. Three rows of narrow absinthe braid placed the depth of a hem above the lower edge form the trimming.

The cap is of the same kind of goods as the skirt. The crown is formed of a small circular center-piece, and a broad, straight

dainty finish to these caps, which may be either plain or ornamental.

Ladies' Costume.

FIG. 4.—The costume is here pictured developed in old gold silk striped with black velvet, black lace flouncing and velvet, with black velvet, Persian band, a metallic cord girdle and buttons for garnitures. The skirt, which is of black silk, is in the approved four-gored style; the pattern provides a full, gathered drapery to cover the front gore, but in this instance it is omitted, and a more dressy effect is imparted by the arrangement of a drapery of black lace flouncing over the gores. The flouncing has a deep border in the Empire style, and the soft fall of the lace is seen attractively between the straight front edges of the over-dress, and also where the side-skirts flare from the back-skirt.

The over-dress is of velvet-striped silk,



Fig 1.—LADIES' BONNET



Fig 2.—GIRLS' DRESS.



Fig. 3—GIRLS' STREET TOILETTE.



Fig. 4—LADIES' COSTUME.

a round outline in the back. The sleeves are in the shirt style and are gathered full at the top and bottom and arranged over plain coat-shaped foundations; they are each decorated at the wrist with smocking that forms a point on the upper side and is in round cuff style underneath; and the fullness below the smocking is formed into a tiny box-plaited frill at the wrist. The waist is gathered at its lower edge and at belt depth above, and upon the lower part of it is applied a belt of the material, which has all its edges stitched to position. The neck is neatly finished with a standing collar of the material. The full skirt, which is gathered and joined to the waist, is finished with a hem and is trimmed a little above the hem with a narrow band of velvet ornamented at each edge with fancy stitching. The closing of the lining is effected by buttons and button-holes and by hooks and eyes along the smocked portion of the waist.

with ostrich feathers, and loops and ends of ribbon stand up at the front.

Girls' Street Toilette.

FIG. 3.—The basque is here shown made up in dark-green mixed goods. It has three box-plaits in the back and front, and the center one at the front is laid in the right front to overlap the left and conceal the closing. The adjustment is effected by under-arm and shoulder seams. The collar, which is in rolling style and flares widely at the throat, is ornamented on the inside with a lace ruching and is finished at the edge with a row of machine-stitching. The coat sleeves are finished plainly and have two rows of stitching placed at cuff depth from the wrists. A belt of the material, finished at each edge with a row of stitching, holds the basque well in at the waist-line; it laps at the left side, and the ends are closed with a slide. The lower edges of the basque are followed by two rows of machine-stitching.

section that is gathered at the edge and joined to the center. The straight section is also gathered at its opposite edge and joined to a straight band which fits the head. The lining is of lining silk and is formed of a circular center-piece and a straight section; the latter is gathered to the center-piece and is plain at its other edge, which joins the band with the corresponding edge of the outside portion. Being much narrower, the lining keeps the cap in shape, permitting it to droop in a picturesque way. A wing rises jauntily from one side toward the front.

The jacket may be made up in any style of wool goods, and for light-weight spring cloths it is especially suitable. Rows of narrow braid may take the place of the machine-stitching pictured, if preferred. To make the cap for dressy wear, plush, velvet or silk are preferred; and two materials may be combined in its making, with ribbon for trimming. Rosettes of narrow ribbon add a

and its beauty is well brought out by its contrast with the black skirt. The basque fronts are fitted perfectly to the form by double bust darts, and are widened to turn back in revers that flare to the neck and taper to sharp points where they meet at the waist-line. The revers are faced with velvet, and between them is seen a vest overlaid with a Persian band; the vest is stitched to position at the left side and attached to the right side with buttons and button-holes in a fly. Below the revers the fronts are decorated with narrow facings of velvet that extend on each side of the closing from the bust beneath the revers to the lower edge. These facings are ornamented near their outer edges with buttons, and button-holes simulated with cord. Under-arm and side-back gores and a curved center seam complete the adjustment of the over-dress, which is pointed at the front and is cut short at the sides, where it is length

(Concluded on page 356.)

Sewing Machines.

Without a Peer!
THE POPULAR

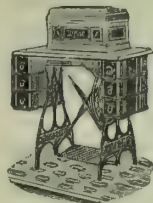
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THE LIGHT RUNNINGDO NOT FAIL to SEE THE "DOMESTIC"
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DRESS REFORM.



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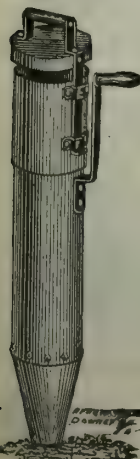
A Corset and a Cover
Combined.Union Underfannel, Jersey Fitting, Ready
Made and Made to Order.The Perfect Corder Corset, all colors, for ladies and
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Corset's ready-made and made to order. Send for
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20,000 SOLD THE FIRST YEAR!

LIFTS OUT
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SAME AS
WALKING PLOW.BIG
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3 WHEEL
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PLOWAlso Full Line of STEEL AND CHILLED
WALKING PLOWS.GALE & M'F'G CO.
ALBION, MICH.BRANCH HOUSES ALLOVER THE COUNTRY
SEND FOR CIRCULARSBROWN'S
SQU' REL AND GOPHER
SMOKER.This is an apparatus for
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Does away with poisoned wheat
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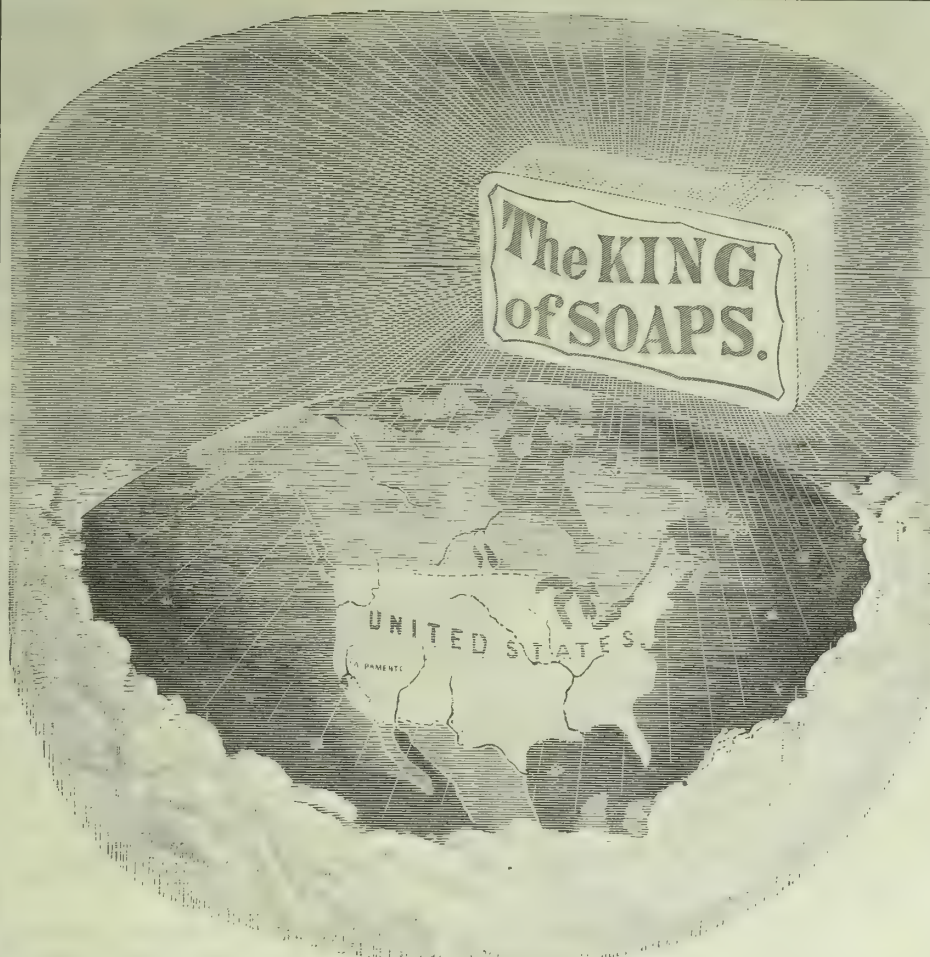
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Weekly

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—AND—

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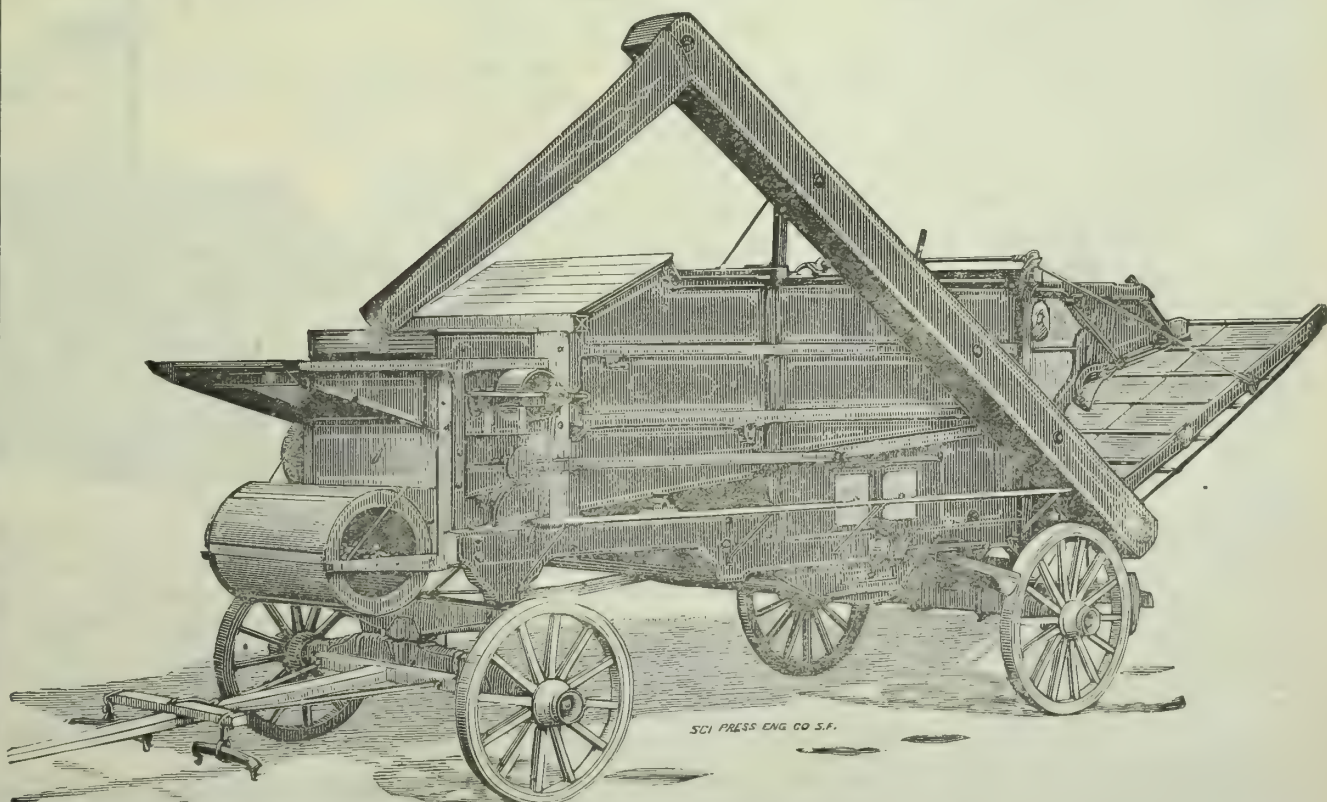
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TIC SODA (tests 99.3-10 per cent) recommended by
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Manufacturers of all kinds of

FRUIT and PACKING BOXES,

Grape and Berry Baskets,

Cor. Front and M Sts., SACRAMENTO

Fashion Notes.

(Continued from page 354)

ened by side-skirts that are each slightly gathered at the top and joined to the lower edge between the second dart and the side-back seam, from which they extend in plain panel-fashion to the bottom of the skirt. A velvet pocket-lap is included at each side in the seam joining the side-skirt to the shorter portions, reaching from the front edge of the side-skirt nearly to the side-back seam. The center and side-back seams terminate at the top of extra widths, which are underfolded to form a triple box-pleat at each side of the center on the outside, the plaits spreading loosely to the bottom of the skirt. The coat sleeves fit closely, and the upper portion is sufficiently larger than the under portion at the top to rise in a curve when gathered across the shoulder. A cuff facing of velvet trims the upper side of each sleeve at the wrist; and a standing collar of velvet is at the neck, ruchings of *crepe lisse* being worn at the throat and wrists. A metallic cord girdle is passed about the waist, overlying the seams that join the side-skirts to the shorter portions and outlining the point at the center, where the ends meet and are loosely tied.

Plain and fancy dress goods may be stylishly and inexpensively made up in this way, with garnitures of fancy braid, braid ornaments, bead or silk passementerie, all-over braiding or embroidery, Persian embroidery or any other fashionable trimming. In the same way the vest and front drapery may be of China or India silk, faille Francaise or some other silken fabric. A light-gray silk striped with black velvet, with a contrast of gray and black throughout the costume, will make a pleasing development of the mode.

The crown of the stylish hat is encircled with a Persian band and is further ornamented with ostrich plumes that droop over it from the back. The flaring brim is faced with velvet.

Reminiscence of the Father of Old John Brown.

EDITORS PRESS:—The recent death of Owen Brown in Pasadena, Los Angeles county, calls to mind some reminiscences of his grandfather, the father of "Old John Brown" of world-wide reputation. The grandfather and my father were very intimate friends; they often visited back and forth, and I remember the old gentleman as a very kind, genial, whole souled sort of person. He stuttered badly, and it sometimes pained me to hear him speak. He and my father were engaged in introducing better breeds of cattle into Northeastern Ohio; the first that I recollect were the Devonshires, and my father prided himself upon having every animal upon his farm of a cherry-red color. The Durhams succeeded and were considered by Mr. Brown and my father, who sometimes exchanged stock to improve the strains, much superior to the Devons. Many years after, the two breeds were mixed in Ohio, which produced a breed superior, I believe, to the pure bloods of either stock.

The last time I saw Mr. Brown was in May, 1839, when my father was moving with his family to the West; we called on Mr. Brown at his residence in Hudson, Portage (since Summit) county, Ohio.

I have no recollection of "Old John Brown" in those days. Let not a grateful country ever forget the "grand old man," born, it may be, a little before his time. S. P. SNOW.

Santa Barbara

Sub-Irrigated Grapes in New York.

EDITORS PRESS:—I have scanned carefully the picture of Black Hamburg grapevines and grapes appearing in the Rural Press of March 16th, and assure you that on my sub irrigated hillside a vine bearing in 1887 barely three clusters, gave us a yield the last season coming near to that indicated by the picture on page 249 of your paper. Ours is not a grape region, scarcely any grapes at all grown in Alleghany county, and yet in no part of our country outside of California have such grapes been produced as I am growing here. My system elongates the producing season fully 30 days each year and frequently 40. I have done and am continuing to do what was about two years ago declared by J. J. W. Billingsley, in his *Drainage and Farm Journal*, increasing production in certain cases a hundred-fold. The average increase does not fall short of from fifteen to twenty fold. The economics of water are incalculable. So true is this that within a few years surface irrigation will have become a thing of the past. It is simply nowhere by the side of sub-irrigation.

Wellville, N. Y.

A. N. COLE.

THE Vallejo Chronicle tells of a report that the big ferry-boat Solano, which carries the trains across Carquinez straits, will be laid off for repairs next month, and during the three or four weeks required to make them all trains from the north and east via Sacramento will pass through Stockton.

LOST IN THE STORM.

One of our local editors clipped from a leading magazine extracts from a vivid description of a western blizzard which we have taken the liberty to publish and at the same time suggest to H. H. Warner & Co., the proprietors of the celebrated Warner's Safe Cure, the feasibility of taking therefrom an extract for the introduction of one of their telling advertisements. The following is the description:

"At the close of a dark day in January a solitary horseman wends his way across the open prairie in one of our western Territories. He passes, at long intervals, the lone cabin of the hardy frontiersman. Two or three old settlers, of whom he has inquired the way, have warned him that a storm is approaching, and one of them, with true western hospitality, urges him to find shelter in his cabin for the night. But he declines the proffered kindness and urges his tired horse forward. * * * The sky grows suddenly dark. * * * He decides to seek shelter. * * * The storm increases in its fury. * * * The rider dismounts to warm his fast chilling limbs. * * * Can scarcely breathe. Blindness comes on. Drowsiness steals over him. The end is near. * * * He is lost in the blizzard."

There is no doubt that the terror which seizes the bewildered traveler is similar to that which overcomes one when he learns that he is suffering from an advanced Kidney Disease, and is informed that he is in the last stages of Bright's disease. At first he is informed that he has a slight kidney affection. Later he begins to feel tired. Slight headache. Fickle appetite. Failure of the eye-sight. Cramp in the calf of the legs. Wakefulness. Distressing nervousness. Rheumatic and neuralgic pains. Occasionally pain in the back. Scanty, dark-colored fluids, with scalding sensation. Gradual failure of strength.

Any of the above symptoms signify Kidney Affection, but he is told that he is all right. His physician treats him for symptoms and calls it a disease, when in reality it is but a symptom of Kidney trouble. He may be treated for Rheumatic or Neuralgic pains, heart affection, or any other disease which he is most susceptible to. Finally the patient has puffing under the eyes, slight bloating of the ankles and legs. His physician may inform him that it is but the accumulation of blood in his ankles for want of proper exercise.

The bloot continues and reaches his body. Then he is informed he has dropsical troubles, and is tapped once or twice. He notices it is difficult to breathe, owing to irregular action of the heart, and finally is informed that he has a slight attack of Bright's Disease. Soon his friends are notified that his is an advanced case of Bright's Disease, and that he can live but a short time. His honorable and dignified physician asks for counsel. It is too late. Still he sticks to the old family physician, and the physician knows, and has known from the beginning, that the patient has been stricken with death for months, for he knows full well that the profession acknowledge they have no remedies for the cure of Kidney Disease.

At last the patient suffocates—is smothered—and dies from dropsical trouble. Or perhaps the disease may not take the form of a dropsical tendency, and the patient dies from apoplexy, paralysis, pneumonia or heart trouble. Or it may take the form of blood poisoning. In each form the end is the same. And yet he and his friends were warned by the proprietors of the celebrated remedy known as Warner's Safe Cure, of the lurking dangers of a slight Kidney affection.

The newspapers have published the dangers. Columns of facts have been printed of men dying from advanced Kidney Disease or Bright's Disease. His friends and physician look around with horror and regret for seeming neglect, but he is lost. He did not heed the warning that a storm was approaching. He declined the proffered hospitality, and recklessly went forward into danger. He struggled manfully for a time, but his strength failed, he grew gradually weaker and he was lost to the world. Not in a blizzard, but from the terrible malady which is almost daily occurring in every community, and which is doctored as a symptom instead of what it is—a mortal disease unless properly treated.

New Catalogues.

The "Planet, Jr." implement catalogue for 1889 describes and portrays a great variety of seed drills, wheel hoes, cultivators, and garden plows, both for hand and horse-power, manufactured by S. L. Allen & Co. of Philadelphia, Pa.

Wm. Parry of the Pomona Nurseries, Parry, N. J., embellishes his list of fruit trees, vines, berries, and ornamental plants with a very handsome chromo-lithograph of the "Wonderful" peach, which was awarded a first prize and silver medal at the Mt. Holly Fair in 1886.

SERICULTURISTS DEPRESSED.—The Governor's veto of the item of \$10,000 in the General Appropriation bill, which was designed to support the State Board of Silk Culture, appears to have caused a great deal of apprehension among those interested in the culture of silk. The board has several thousand dollars worth of stock on hand, including worms, which must be used or prove a total loss. There is a possibility of private citizens subscribing money enough to carry the work along for the next two years; but if this hope prove disappointing the whole project seems likely to fall through.

Successful Patent Solicitors.

As Dewey & Co. have been in the patent soliciting business on this Coast now for so many years, the firm's name is a well known one. Another reason for its popularity is that a great proportion of the Pacific Coast patents issued by the Government have been procured through their agency. They are, therefore, well and thoroughly posted on the needs of the progressive industrial classes of this Coast. They are the best posted firm on what has been done in all branches of industry, and are able to judge of what is new and patentable. In this they have a great advantage, which is of practical dollar and cent value to their clients. That this is understood and appreciated, is evidenced by the number of patents issued through their SCIENTIFIC PRESS Patent Agency (\$5000) from week to week and year to year.

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CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.

Money advanced on Grain in Store at lowest possible rates of interest.
Full Cargoes of Wheat furnished Shippers at short notice.

ALSO ORDERS FOR GRAIN BAGS, Agricultural Implements, Wagons, Groceries and Merchandise of every description solicited.

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GRANGERS' CO-OPERATIVE BUSINESS ASSOCIATION, SACRAMENTO, CAL.

Hardware and Groceries

AS CHEAP AS THE CHEAPEST.

Agents for Studebaker Wagons, Carriages and Buggies, Oliver Plows, and Cassidy Sulky and Gang Plows. Country Orders Solicited.

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WM. JOHNSTON, President.

WM. GREER, Secretary.

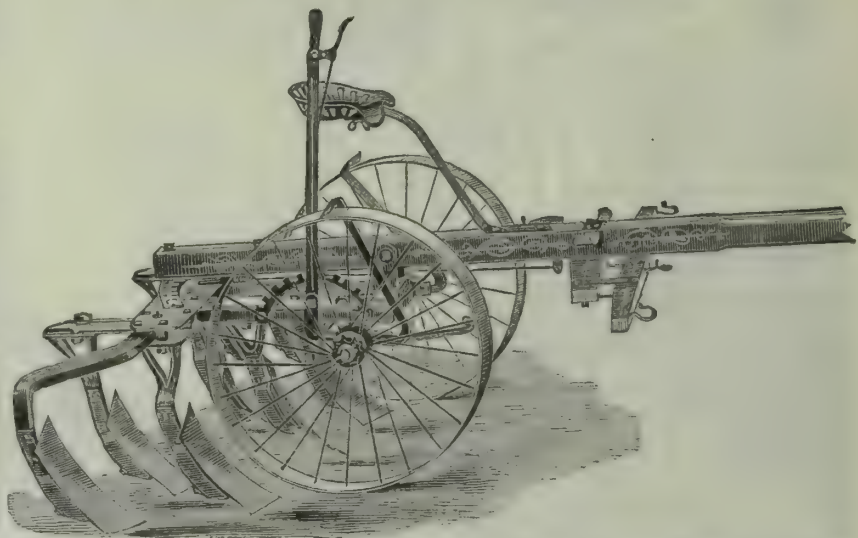
A GREAT SACRIFICE!

On account of the death of F. A. Briggs, Manager of the Pacific Coast Branch of the Amesbury (Mass.) Carriage Factory, the whole stock of fine light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for sale at less than cost, to settle the estate.

C. CREGO, Administrator.

SALESROOMS, 220 and 222 MISSION ST., SAN FRANCISCO.

The "San Jose" all Iron & Steel Frame CULTIVATOR.



We take pleasure in calling the attention of the Orchardists and Vineyardists of the Pacific slope to our NEW ORCHARD AND VINEYARD CULTIVATOR. The most complete and easily handled machine in existence. Weight, 335 pounds. The Cultivator is raised and lowered by means of a foot and hand lever, reducing the labor of handling to almost nothing.

It is the only Cultivator that can be handled successfully on a side hill. By means of the Shifting Pole the tendency to crawl down hill can be overcome. This feature is of advantage on level ground as well. The pole is shifted by the horses and can be checked at any angle by means of a foot lever. The Cultivator is increased from 7 to 9 teeth by sliding arms into a grooved casting in the ends of the frame. We lack space for a further description. WRITE FOR CIRCULARS. Address:

SAN JOSE AGRICULTURAL WORKS,

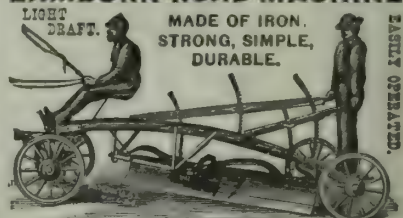
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Fine Carriages, Wagons, Carts and all Kinds of Agricultural Implements.

BUGGIES in Every Grade.

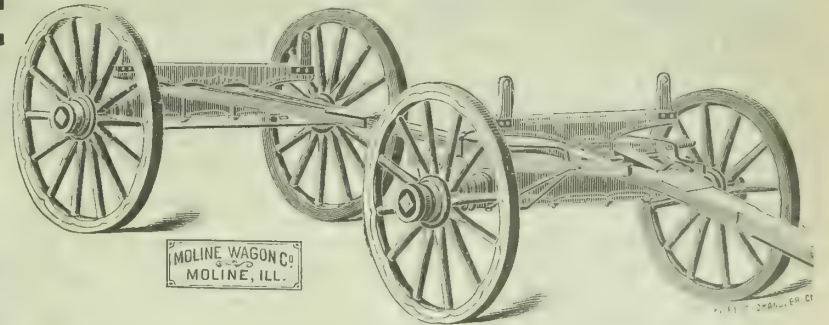
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Both Self and Hand-dump.

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Empire Cultivators, Garden Tools, Lawn Mowers, Seeds, Etc.

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WAGONS**



THE CELEBRATED MOLINE HEADER WAGON.
The Best in the Market.

POWELL'S PATENT DERRICKS AND NETS.



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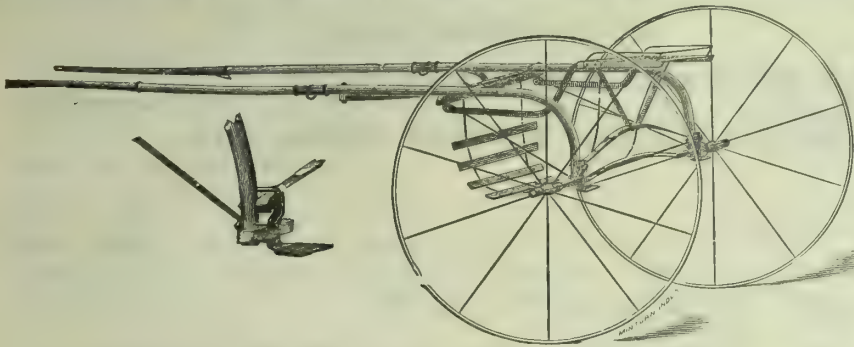


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Manufactured and sold for over 15 years and never one returned.

The entire wagon-load is hoisted up in a center opening net, by a self-braced Portable Derrick which is moved from stack to stack ground without being taken down. Half an hour is ample time to move and set. Two nets can be used in each box, and the load taken out in two parts by having a partition in the box. Any farmer can at once see many advantages gained by the use of this invention.

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THE STOCKTON CART

"Downs" all its Competitors. Beats Anything for the Money ever Brought out in the Shape of a Cart.

STRONG, SERVICEABLE, DURABLE.

It is Simple, Light and Strictly First Class, all Second-growth Hickory, Steel Axles and Steel Tires. PERFECTLY BALANCED. Low Bent Seat Arms, Long, Easy-riding, Oil-tempered Springs, Best Wheels and Best all over. It hangs low, rides easy and has no horse motion. PRICE, Two-Passenger Cart (Wheels, Springs and Axles guaranteed for a year), \$25.

Special Circulars for all Lines of Goods furnished on Application.

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TO FRUIT GROWERS.

PROTECT YOUR TREES
AGAINST
Sunburn, Rabbits, Borers
and other Pests.

THE EXCELSIOR FRUIT TREE
PROTECTOR

Is not only a protection against Sunburn, but being chemically prepared, is proof against Rabbits, Borers, etc., and is approved and being used by all orchardists who have examined its merits.

Buy no other until you have seen the EXCELSIOR. Its simplicity of fastening will recommend it, as it requires one-third less time to adjust it than any other make.

Price for Protection from Sunburn, \$1 per 100
Price for Protection against Sunburn, Rabbits and other Pests, \$2 per 100.

BONESTELL & CO., Agents,
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SEND FOR SAMPLES.

PROTECT YOUR TREES
FROM

Sunburn, Borer, Rabbits, etc.
One Cent per Tree!

Hay's Tree Stem Envelope
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WATERPROOF! ADJUSTABLE!
Easy, economical and expeditious.
Saves time, trouble and expense.
Waterproof Paper, 7x18 inches, \$1 per 100.

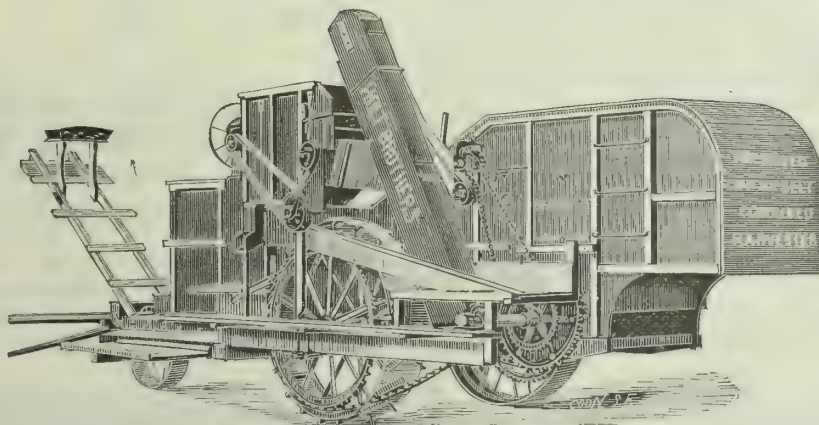
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Storage of Grain per Season not to exceed.....	\$1 00 per Ton.
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Weighing into Warehouse, Free.

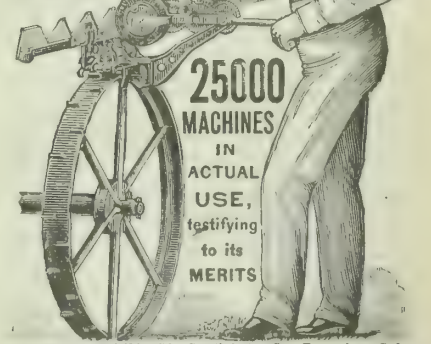
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W. F. BERRY, Secretary.

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PERFECT MOWING MACHINE KNIFE GRINDER. Can be carried into the field and attached to Mowing Machine Wheel. New Descriptive Catalogue Free. **HIGGINSON MANUFACTURING CORPORATION,** successors to R. H. ALLEN & CO., 189 Water St., N. Y. Men also, HIGGINSON, CONNECTICUT



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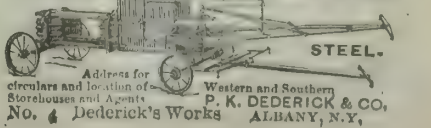
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THE STABLE.

Horse Show at Hanford.

EDITORS PRESS:—There are but few things in this world that can contribute as much to the healthful enjoyment of mankind as does a good horse, and it is the writer's wish that every well-disposed and intelligent person in the world was able to own and provide for one of these noble animals. But there are few things that can inflict greater mental pain upon every true lover of the horse than to see a really fine, bright, free and intelligent animal in the hands of a human brute, who has no conception of its true worth or the kind of treatment it is entitled to at his hands. In our cities drunken, brutal men are often punished for their abuse of dumb animals, but in the country, where people are generally supposed to be sober and in the main respectable, little attention is paid to such things. But there are so many people of average intelligence and business abilities, and of good standing in society—many of them even Christians and some of them preachers of the gospel of Christ—who are so cruel to their poor horses that I really think there should be a rigid law enacted and enforced for the protection of these animals from the cruelty of their thoughtless, if not vicious masters.

In former letters to the Rural I have given some review of the progress of the business of horse-raising in Lucerne, and I may now add that, considering the size of our little valley (about 200 square miles), the production of good horses here has become simply enormous. Every grade, breed and class, from the clean-limbed thoroughbred to the Highland Clyde of Scotland, is here represented, and it is safe to say that within a lapse of five years Lucerne will become world-famed for her success in this line of industry.

One year ago it was agreed by the leading horsemen of Lucerne to give an exhibition of their stock in the streets of Hanford on a given day. The agreement has been complied with, and the showing at that time was even better than the most confident had expected. On the 30th of last month the second annual exhibition of this kind was given, and it proved even more satisfactory than the one of a year ago.

A spacious platform was erected on the corner of Doerty and Front streets for the convenience of the Hanford cornet band, which discoursed excellent music for the parade, which started at 1 P. M. Sixty-three fine stallions were in line, most of them fair specimens of their respective classes. Behind them came large families of horses ranging from six years old or more down to sucking colts.

Under the marshalship of Mr. E. Gallup, assisted by J. G. Jacobs and J. D. Biddle, the procession passed through the principal streets of Hanford, bringing up on the square near the railroad depot, where the stock was viewed by many hundred, not to say thousands, of spectators. Photographers were here busily engaged for some time in taking photos of many of the horses, and as an all-around show of good horses, I do not think it could be surpassed by any community in the State.

In justice to the many horse-breeders who have spared neither pains nor expense in the introduction and rearing of the very best of horses in Lucerne, I would like to mention all their names and tell just what they have done to promote this line of industry here; but time and space will scarcely permit me to mention more than one horse of each class, and in doing this I shall endeavor to speak of a representative one in each case—that is, one that is at least as good as any of the others, though not necessarily always the best.

The standard-bred trotting stallion Specie, registered No. 8256 in Wallace American Trotting Register, and owned by Geo. A. Dodge of Hanford, is of a handsome chestnut color, weighing 1300 pounds. He is one of the finest and best-bred trotters in the State, but being kept solely for breeding purposes, has never been trained, though he can strike a 2:40 gait on any smooth road without training. His full brother (Honesty) has a record of 2:25½ at four years old, while his full sister (Mocking Bird) has a record of 2:38 at two years old. There was a fine show of Specie's colts at the exhibition, but most of them were young, very few of them having ever as yet been put into training. There were several, however, by common dams who have trotted their mile inside of three minutes without being trained by experts. Mr. Dodge has over 30 colts by Specie, some of which will probably get their names registered in the American Trotting Register within a year or two.

The thoroughbred stallion King Daniels, by Joe Daniels, owned by N. W. Motheral and bred by John Arnett of Alameda county, is a fine specimen of his class and one of the largest thoroughbreds in America, weighing about 1300 pounds. He is a young horse and brought here last year, but he has an excellent showing of this spring's colts, many of them being by dams of well-bred stock. Mr. Motheral thinks that trotters crossed with thoroughbreds are apt to bring the best trotters, while Mr. Dodge thinks quite to the contrary; but as both of them are good horsemen, while I am not a professional, I leave this mooted question to be settled by those more competent to judge of such things.

Lindley Bros. of the Hanford livery stables

have recently imported a fine stallion of the Highland Clyde stock, a beautiful chestnut in color, and weighing over 1700 pounds. He is known as Boston Prince, and is one of the finest horses I ever saw in the line of draft. The Lindley Bros. have also imported a fine Cleveland Bay stallion, Chaucer by name, his registered number being 369. These two horses cost at Hanford about \$4000, and are a credit to their owners and to this country.

Four other Cleveland Bay stallions were brought here by Jesse Harris of Fort Collins, Colorado, this spring, and sold to C. Railsback of Grangeville, L. C. Dunham of Armona, W. J. Newport of Hanford, and to the Michel Bros. of Lemoore respectively. L. C. Dunham's horse, Gloriation No. 372, came more under my observation than did the others. He is a beautiful dark bay, three years old, and weighing about 1250 pounds; has fine style, lofty carriage, and most excellent proportions. These horses, I am informed, were imported at a cost of \$2000 each, and they certainly are a fine addition to the already large variety of stock horses in Lucerne.

D. C. Hayward of the Excelsior Stock Farm made a fine showing with his imported Norman stallion Cheri and his French coach horse Elector. Cheri is a coal-black, weighing about 1800 pounds, of fine proportions, and is the most active horse of his size that I ever saw. Elector is a bright bay, weighing 1400 pounds, imported from France two years ago, and as an all-purpose horse has few, if any, superiors.

The all-purpose stallion Shell Bark, owned by David Dodge of Lucerne Farm, made the largest showing of progeny at the exhibition. Behind him in the parade came six match teams, all of the same color, and closely resembling their sire, and they were splendid animals every one. Shell Bark is a fine chestnut, weighing 1400 pounds, and though not claimed to be other than an all-purpose horse, he is closely related, and sprang from some of the fastest trotters in America. Lucerne Farm has now between 30 and 40 brood mares, and is under the excellent management of the proprietors, Messrs. Church & Dodge.

F. E. Welch of Blackbird Stock Farm made a fine showing of colts by his trotting-bred stallion Blackbird by California Blackbird, who, I believe, has a record of 2:21.

At some future time I hope to be able to do justice to many other prominent horse-raisers of Lucerne which the already undue length of this letter will not now permit.

A. F. JEWETT.

Hanford, Cal., April 5th.

GRAIN BAGS AT SAN QUENTIN.—At the monthly meeting of the Board of State Prison Directors last Saturday, Warden McComb stated that since stopping the work in the sack and door factory the force in the jute-mill has been increased, and as soon as the new operatives acquire the necessary skill the record of last season will be equaled. During the past year but few Chinese have come in to take the places of those going out, and it is a little more difficult to develop the talent for weaving in the class of prisoners now received. The farmers are taking advantage of the opportunity to purchase grain bags from the prison at less than the current rates, and orders are coming in in extraordinary volume from all parts of the State.

ORANGE TRAINS.—A dispatch from Mohave states that 42 cars in three trains, freighted with over 470 tons of oranges bound for Eastern points via Ogden, passed that station on the morning of the 7th instant.

SUGAR-BEET SEED, for experimental purposes, has been distributed among farmers in Modoc county.

Petaluma Incubator Factory.

A few weeks ago in mentioning the improvements and enlargement of the manufacturing facilities of the Petaluma Incubator factory, we promised ere long to give a view of the establishment. The engraving on this page fulfills this promise. The establishment is believed to be the largest of its kind in the United States. It is situated in Hopper's new brick building on Main street, Petaluma. The factory has a frontage of 40 feet and extends 70 feet in length, with two stories and basement; the basement is used for storage and engine-room. The office and show-room will have a frontage of 40 feet and 14 feet wide. An elevator has been placed in the building to connect with the basement. The main floor is supplied with a full outfit of the best woodworking machinery.

The establishment is owned by L. C. Byce, well known in poultry and manufacturing circles. There are 13 men now at work on incubators, and yet the orders are ahead of the output of the factory. Three were sent out on Saturday last when our representative happened to be present.

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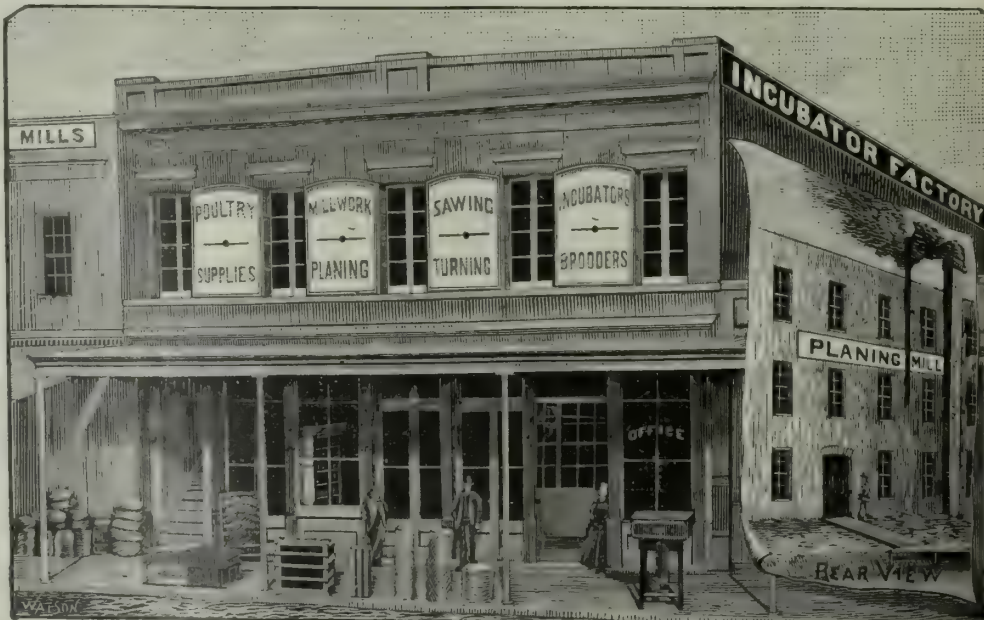
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In addition to the manufacture of the Petaluma incubators and brooders, Mr. Byce has secured a one-half interest in the Cassidy fruit drier, for which it is thought a demand will be created that will call for the manufacture of

these machines in large quantities. Mr. Byce will not confine himself alone to the manufacturing business, but is prepared to do all kinds of jobbing in woodwork, brass, iron and ivory turning, model-making, etc.

Books and Authors.

BY C. L. B.

"CALIFORNIA SUNSHINE." By Lillian Hinman Shuey. M. E. Book Repository, San Francisco.

This little volume, aside from its literary merits, its poetic pictures framed in graceful diction, has even greater charm in that it mirrors the noble womanhood of its author; and while the mind of the reader enjoys her charming pen fragments, the heart, reading between the lines, will be attracted and uplifted by glimpses of a true woman's affection, sympathy and heroism. The largest and perhaps the most noticeable poem of the collection is one which was read before the Oregon State Grange, and published in our issue of June 9, 1888, entitled "The Golden Spike." In very attractive, if less stately vein, are "Three Sisters" and "To One, a Poet," the first a quaint conceit quaintly told, and the second a musical and earnest appeal, the spirit of which all poets should heed in sending forth their poetic offerings. The author gives us in "Law Versus Justice" a bright bit of satire. And "Child Arms" is a tender, pathetic little poem that in bereaved longing will appeal to all those who miss the children gone into silence. I may not do better in closing than to quote from the author's poem of "Dare" the following beautiful sentiment:

"As we dare we shall climb and grow strong,
And the wind, it shall seem but a song;
And the burden shall fall, and the lights
Of God's blessing shall shine on the heights."

"MAURICE ROSSMAN'S LEADING." By Mary R. Baldwin. New York: John B. Alden, publisher.

This little story is interesting and well written; a plea for "the best talent, the highest aspiration, and the truest living" where things are in a formative state, as in the crude little Western town where the story opens, and advocating strongly in its love story the union of those "meant for each other," with a protest and warning against mistaking gratitude for love. To the earnest reader this little book will give thoughtful pleasure.

"LOST—TWO LITTLE GIRLS." A Story for Children. By P. L. Gray. New York: John B. Alden, publisher.

To young people fond of fairy lore, this little story will prove an interesting novelty, being the dream adventures of two little girls on the planet Mars.

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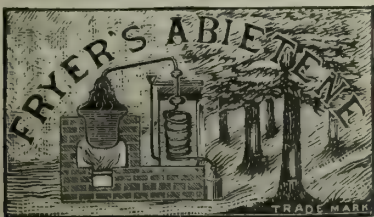
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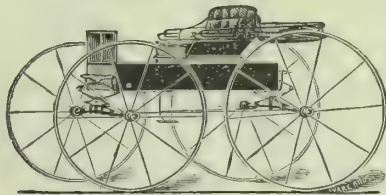


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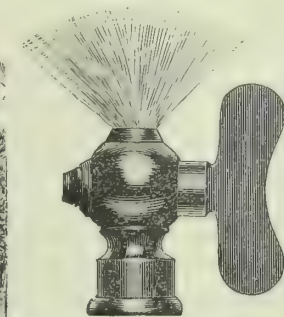
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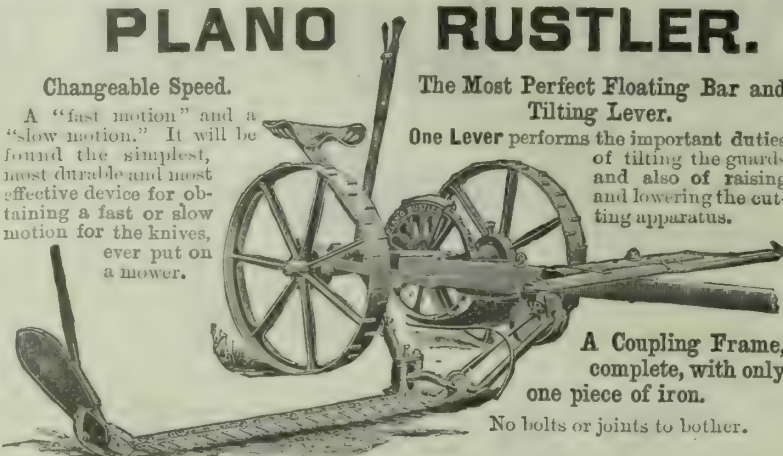
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QUERIES AND REPLIES.

Propagating the Date.

EDITORS PRESS:—I have been very much interested in the articles lately published in the Press on the date palm, and would like to get a little information on that subject. I have a date palm that seems very much inclined to sucker out instead of sending up a main stem. Ought those suckers to be taken off? And if so, can they be taken off so they will grow? And is this inclination to sucker any indication of the sex of the plant, or how is that told?—G. W. FAULKNER, Santa Paula.

Removing the suckers will minister to the growth of the central stem. The inclination to sucker is not an indication of the sex of the tree, but the suckers will grow into palms of the same sex as the parent. This sex cannot be determined until the plant comes into bloom, and then the bloom of the male will be found to contain stamens bearing anthers on their tips, while the bloom of the female has only the pistil.

Rooting the suckers removed from the base of a palm is easily done when the conditions are right. The general conditions are adequate heat and moisture, and failure has resulted from the absence of one or the other of them. Moisture unaccompanied by sufficient heat will result in rotting instead of rooting, and with heat but lack of moisture the sucker simply dries up. Concerning the growth of date suckers a correspondent of the *Florida Farmer* writes:

"The date palm may be speedily and successfully propagated by the offsets that spring up at its base. On first appearing, however, these depend upon the parent for support, and can no more stand alone than a nursing infant. When the course of a few years has given them a rudimentary stem and root process of their own, they may be severed close to the maternal trunk and planted well down in the spot where they are to grow. Like any other cuttings, water must be freely and regularly supplied till the roots have become fairly established, which generally requires a year or more. In date-producing countries suckers are preferred to seeds, not only as more quickly coming into bearing—say six or eight years in Mesopotamia—but as the only certain guarantee of sex and variety, for the offset is, of course, the same in sex and variety as the parent. As the date cannot be grafted, the only way of perpetuating choice kinds, which are sometimes seedless or of doubtful fertility, is by means of these offsets."

Even when seedlings can be grown as readily as they are usually obtained from the seeds of the dried dates sold in our markets, they are but seedlings and stand about the same chance of being superior as the seedlings of other fruits. It is for this reason that we have repeatedly urged some one who can afford the time and the money to see about importing from Eastern date countries some rooted offsets from their best and earliest ripening sorts, that these, as well as the numerous seedlings now growing, may be tried in this State.

We would like to hear from readers who have successfully rooted date-palm suckers how long after their appearance they took them from the parent palm, what time of the year they were planted out, etc. We know that many have failed, and we would like to describe the conditions of success as definitely as possible.

Fruit Lands in the Winters Region.

Readers can hardly overlook the attractive advertisement of McAfee & Baldwin of a sale of fruit lands with all the pleasant accompaniments of cheap fares, free luncheons and rides, etc., which will take place on the ranch of McMahan & Yount, northwest of the town of Winters, on Saturday, April 20th. This land is adjacent to the long-famed Putah creek early fruit and vegetable region and to the valleys of the Vacaville district. Every one should see the country, and this is a fine opportunity. Read the advertisement in another column.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, term of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

VICE-PRESIDENT TOWNE of the Southern Pacific Co. says that the line from Oakdale south through the San Joaquin valley to a junction with the road from Fresno to Paso Robles, will be pushed forward as soon as practicable. The line for the coast service between San Margarita and Elwood will complete a second through line to Los Angeles. Just how soon the work on these lines will be pushed forward will depend much on the earning-power of the lines already constructed.

SANTA ROSA is discussing means to protect itself against the hoodlum element which visits that city during the picnic season.

THERE is talk of establishing a condensed-milk factory in Petaluma.

Trotting Horse-Breeders' Association.

On April 4th a number of those interested in the development of the trotting horse met at the Palace hotel in this city and organized the California Trotting Horse-breeders' Association.

After the purport of the association had been announced, business opened with the election of the following gentlemen as permanent officers: J. H. White of Lakeville, President; Wilfred Page, Secretary; and N. T. Smith, Treasurer.

The Chair appointed the following committees, who will report at the next meeting, to be held April 19th: Rules and By-Laws, Messrs. Shippee, Hancock, Gamble, Page and Smith; Committee to Nominate Directors, Messrs. Shippee, Lathrop and Simpson.

The following signed the roll of the new association, either in person or by proxy: Leland Stanford, Count G. Valensin, A. L. Bancroft, L. U. Shippee, O. A. Hickok, J. H. White, E. Topham, A. D. Weske, Wilfred Page, Fred W. Loeber, E. P. Heald, Thomas Bonnet, William Corbett, M. W. Hicks, G. W. Hancock, T. C. Snider, Wilbur F. Smith, J. C. Wiedom, J. J. Evans, F. E. Lawson, J. A. Goldsmith, Ariel Lathrop, Samuel Gamble, S. W. Straube, Dan McCarty, H. W. Crabb, W. J. Hart, E. J. Miller Jr., N. T. Smith, James Cairn Simpson, A. T. Hatch and P. A. Finigan.

Quarantine Guardians.

B. M. Lelong, Secretary of the State Board of Horticulture, advises us of the appointment of the following quarantine guardians:

San Mateo County—L. D. Morse, San Mateo; W. J. McNulty, Woodside; Alexander Moore, Pescadero.

Mendocino County—Mart. Boecktel, C. R. Thomas, Carl Purdy and J. H. Clark, all for the county at large.

A SPLENDID ARBORETUM.—The *West Coast Scientist* makes the interesting announcement that Robert Douglas, the well-known arboriculturist, and his son Thomas H. will be in charge of the arboretum to be established at the Leland Stanford, Jr., University at Palo Alto, and that 900 acres or more if required will be devoted to tree growth, making the establishment the largest of its kind in the world. Every known tree and shrub that can be made to thrive on the Pacific Coast will be secured, and an especial point will be made of introducing all our native species. This is a grand announcement. Nine hundred acres of named trees and shrubs in one place will be a Mecca of resort for tree-lovers of the next generation, and as trees grow so fast in this State, possibly some of our old chaps of the present generation may not fail of enjoying it also.

THE FORESTS OF WASHINGTON TERRITORY.—The Secretary of the Interior in his recent report to Congress says that the forests of Washington Territory furnished 320,000,000 feet of lumber, 69,000,000 lath and 50,000,000 shingles during the last fiscal year, of which over two-thirds was shipped for foreign consumption. The capacity of the sawmills of that Territory he placed at 1,043,596,000 feet.

"HOME INDUSTRY" WITH A VENGEANCE.—The *Record-Union* says that at a late meeting of the N. Y. State Brewers' and Maltsters' Association, held in New York City, a resolution was adopted that they would buy only hops grown in that State, and would co-operate with the hop-growers in asking Congress to tax foreign hops.

A BROKEN LANTERN.—The house and barn of T. Scottini, near Susanville, were burned last Sunday night with 100 tons of hay, farming implements, household furniture and 12 cows. The cause of the fire was the breaking of a lantern. The loss is over \$5000, about half covered by insurance.

JOSIAH S. COVER, one of Riverside's earliest settlers, and among the first to propagate the Navel orange which has become so famous, died a few days since at San Diego, aged 59 years. He was an honest and kindly soul, respected and beloved.

Too much of what we claim to know about farming, we do not all know. Our information is much more reliable and profitable when we "know for ourselves and not entirely through another."—W. J. Northern in *Southern Cultivator*.

PORTLAND is to have a terminal grain elevator with a capacity of 1,000,000 bushels. The building, 315 by 68 feet and 125 feet high, is to be completed by Sept. 1st.

W. S. DEVOL, formerly botanist and bursar at Columbus, O., notifies us that his address henceforward is "Agriculturist, Experiment Station, Reno, Nevada."

THE Santa Rosa *Republican* of March 24th says: Work on the redwood lumber-mills will not be started for some time, owing to the bad condition of the roads.

TO SUBSCRIBERS.—Members of the P. of H. now receiving the regular editions of the RURAL PRESS are advised to try our Grange editions instead for awhile. The cost is the same for each edition. We will transfer names from either to the other on receiving a written request therefor.

Olive Oil From Sonoma.

Col. Hooper last week sent us bountiful samples of the oil which they have been expressing from Mission olives at "Sobre Vista," and says in the accompanying note that they consider it the best they have made yet. One experienced lady of our acquaintance says it is the very best she has ever tasted; and our own favorable verdicts, rendered heretofore, are but sustained and strengthened by this later evidence.

An Eastern friend, reading in the Rural of March 9th how the olives were ground up, stones and all, asked if there were no danger of thus getting some deleterious matter (prussic acid, for instance) into the oil. Mr. Cooper said at the Chico convention that he had had thorough analysis made of the olive stones by one of the best chemists in Philadelphia and had been assured by him that there is nothing in the stone which could injure the quality or keeping properties of the oil. On this assurance he has taken no pains to avoid crushing the pits.

Inducements to Subscribers.

To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, to those who pay fully one year in advance of date, if requested the following articles (while this notice continues), at the very greatly reduced figures named at the right:

- 1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price \$1).....\$0.25
- 2.—Beautiful Poetic Review, entertaining and instructive; 35 pages (a handsome and pleasing present)......25
- 3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt......50
- 4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 120 pages, illustrated......25
- 5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations......05
- 6.—To New Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new".....Free
- 7.—Any of Harper's, Frank Leslie's and most other first-class U. S. periodicals, 15 per ct. off regular rates.
- 8.—Pacific Coast and Eastern Dailies and Periodicals, except special publications, we can usually give 10 to 15 per cent off advertised retail rates.
- 9.—March of Empire, by Mallie Stafford......25
- 10.—Life Among the Apaches, 322 pages, stiff cloth......25
- 11.—\$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application......25
- 12.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.)......25
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- 19.—Percheron Stud Book—French—bound in leather, 192 pages (full price, \$3).....1.00
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- 21.—Knitting and Crochet, by Jennie June; 144 pp., 200 illustrations......25
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- 24.—The Way to do Magic; illustrated, 60 pp......10
- 25.—The Taxidermist's Manual; illustrated, 64 pp......10
- 26.—A Dictionary of American Politics; comprising accounts of political parties, measures and men, and explanations of the Constitution, divisions and practical workings of the Government, together with political phrases, familiar names of persons and places, noteworthy sayings, etc., by Everitt Brown and Albert Strauss. (Full price \$1)......50

NOTE.—The cash must accompany all orders. Address this office, No. 220 Market St., S. F.

In writing correspondence, items of information, or on other business, please use a separate sheet. Sample copies of this paper mailed free to persons thought likely to subscribe.

Send for free circular describing most of these premiums, and any further information desired. Inform your neighbors about our offers and paper.

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\$550,000 TO LOAN ON RANCHES ON MORTGAGE; large sums below market rates. S. D. HOVEY, 318 Pine street, San Francisco.

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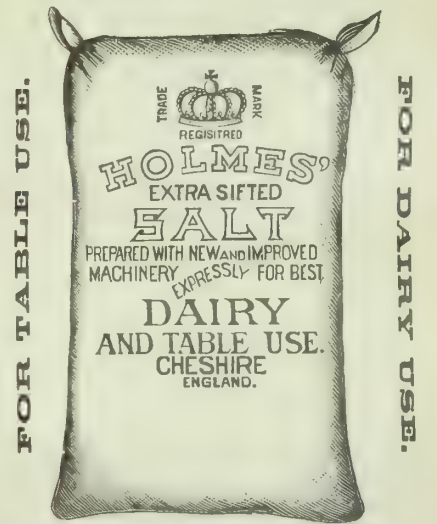
A man may use the wart on the back of his neck for a collar-button, ride on the back coach to save interest on his money until the conductor gets around, stop his clock at night to save the wear and tear, leave his i and t without a dot and a cross to save ink, pasture his mule on his mother's grave to save corn; but a man of this kind is a gentleman and a scholar compared to the fellow who takes a newspaper two or three years, and, when asked to pay for it, puts it back in the postoffice and has it marked "refused." When a man wants his paper discontinued, he ought to have the manhood to pay up and inform the editor that his paper is no longer wanted.—*Chickasaw Enterprise*.

Have You a Sister.

Mother, wife or lady friend to whom you desire to give that most acceptable of all presents—a handsome black silk or satin dress? or do you wish one for yourself? In another column of our paper is the astonishing offer of a reliable silk manufacturing establishment located in Mansfield Centre, Conn. Read it carefully. Selling as they do, direct from their looms, and thus saving all intermediate expenses, they are in a position to offer, at a merely nominal price, goods which cannot be excelled for richness of color, durability and pureness. We recommend our readers to write for samples to O. S. Chaffee & Son, Mansfield Centre, Conn., which are sent free on application. Do not be deterred by the thought that a purchase of this kind is beyond the limits of your purse; it is not, as a silk dress bought from this firm will cost you no more than many ordinary cloth suits. On ordering from the samples, the pattern you select is sent to your residence; and if you are not pleased with it in every particular it will be taken away again without expense to you. Try them; it will pay you to do so.

THE Southern Pacific Co. pays for the lease of the Central Pacific R. R. Co.'s line \$1,200,000 per annum.

ALWAYS USE THE BEST.



It's the Purest.
It's the Strongest.
It's Free from Lime and Pan Scales.
It contains No Insoluble Matter.
It requires No Sifting, as the Grain is very Uniform, and every Ounce can be Used.

Five pounds of HOLMES' Extra Sifted SALT is enough for 100 pounds of Butter. The quantity of Table Salt used in a family is small. Why Risk Health and Spoiling Butter by using ordinary Salt, when the extra cost of using Holmes' Extra Sifted Salt is so small? Ask your Grocer for it.

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GRAND CATTLE SALE!

GALLOWAY,
POLLED ABERDEEN ANGUS,
DEVON and DURHAM
CATTLE,



To be sold by order of the Executor of the late
SETH COOK,
At 11 o'clock A. M., at the
Bay District Track, San Francisco,
— ON —
THURSDAY, MAY 16, 1889.

The sale will comprise imported Bulls and Cows and their produce. This is the most superior lot of cattle yet offered for sale in California, and should command the attention of breeders throughout the Coast. Catalogues will be ready Saturday, April 13th.

KILLIP & CO., Auctioneers,
22 Montgomery St., San Francisco,

Breeders' Directory.

Six lines or less in this directory at 50c per line per month.

HORSES AND CATTLE

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

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DENNIS & MONROE, Fresno, Cal., importers and breeders of thoroughbred and registered Clydesdale horses.

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. E. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton,) Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Short-horns & Herefords, Wildflower Farm, Fresno or Sacto.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. BOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER Saxe & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

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GALT POULTRY YARDS, S. W. Palin prop'r, Galt, Sacto Co., Cal., importer and breeder of thoroughbred Ply. Rocks, Lt. Brahmas, Langshans, Wyandottes & P. Cochins, etc., single sitting \$5; 2 sittings \$7.

A. C. RUSCHHAUPT (successor to Jas. T. Brown and W. B. Nisbet), box 43, station B, Los Angeles, Cal. Yard on State St., Brooklyn Heights, importer and breeder of 15 varieties thoroughbred Poultry. Fowls and Eggs at reasonable prices. Circular free.

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CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

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W. O. DAMON, Napa, \$2 each for choice Lt. Brahmas, Wyandottes, P. Rocks, White and Brown Leghorns. Eggs, \$2 per 13. Best Seed for sale.

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Trotting Bred Stallions, Mares and Geldings

—AT—

Bay District Track

ON THURSDAY, MAY 9, 1889.

Selections will be offered from Breeding Farms of M. SALSBUURY, M. W. HICKS, F. H. BURKE, MRS. SILAS KINER and other noted breeders.
Entries will close April 1st. Only pedigreed stock will be received. Apply to

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ANNUAL SALE

—OF—



Road and Harness, Work and Draft

—AND—

THOROUGHbred RIDING HORSES

AND SHETLAND PONIES,

Property of **J. B. HAGGIN, ESQ.,**

—ON—

TUESDAY, APRIL 30, 1889,

—AT—

SAN FRANCISCO.

The place at which this Sale will take place will be announced in next week's issue of this paper.

KILLIP & CO., Auctioneers, 22 Montgomery St., San Francisco.

AUCTION SALE

—OF—

FINE BRED TROTting STOCK

PROPERTY OF

D. J. MURPHY, ESQ.,

At 10 A. M., on

Wednesday, April 24, 1889,

—AT—

AGRICULTURAL PARK, SAN JOSE.

The sale will comprise descendants of NUTWOOD, GEO. M. PATCHEN, JR., CAPT. FISHER, ETHAN ALLEN, JR., WHIPPLE'S HAMBLETONIAN, RED LINE, PRINCE ALWOOD, and STOUTBRIDGE CHIEF, and JOSEPH HERCULES, OWEN DALE and BELMONT, thoroughbreds.

Also CLYDE and NORMAN DRAFT HORSES.

All are broken to harness, except a few yearlings and two-year-olds.

Catalogues will be prepared immediately.

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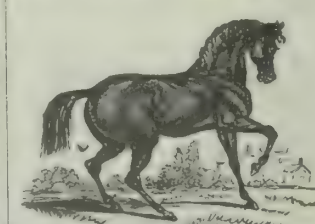
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Of the Coomassie, Alpha and other choice strains.

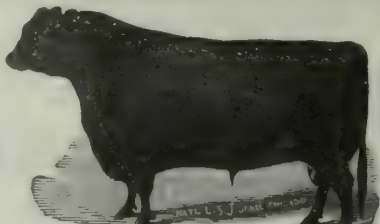
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POULTRY—Nearly all varieties.

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For information address or call on S. N. Straupe as above. No trouble to show stock to intending purchasers.

SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with record a better than 2:30, and the dam of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp. Emancipation. Third dam by Bertrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28.

TERMS, \$100 for the season.

CRESO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medcoe (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Rysdyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinket, 2:24, and Tamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, 6th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Massineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:30), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Tru-tee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.

Vol. 1, American C. B. S. H.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportsman (291).

Second dam by Luck's All (189).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" case, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire beating 20 others.

First dam Whalebone (366), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16½ hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLION 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 248; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Tee-dale, and second premium at Bowes, England, in 1886; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

The Standard Bred and Cleveland Bay Stallions

Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Stock Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

PASTURAGE, \$4 per month; Hay and Grain, \$10. Best care taken, but no liability assumed for accidents or escapes.

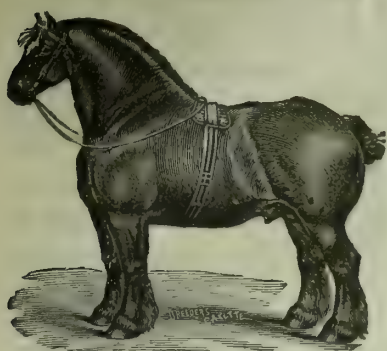
Mares sent to Fashion Stables, Oakland, Benne's Stables, Martinez, or to Geary & Grindie's Stables, Hayward, will be forwarded to Farm free of charge.

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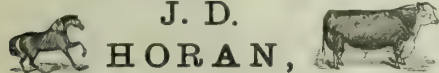
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(Registered) are on sale at reasonable terms at the MT. EDEN BREEDING FARM. Also a 2-year-old entire Clydesdale colt. Address or call on

H. P. MOHR,
Mt. Eden, Alameda Co., Cal.**J. D.****HORAN,****Stock and Sale Yard,**Cor. Tenth & Howard Sts., San Francisco.
Commission Agent for the Sale of Horses and Cattle.
Stock of all kinds bought and sold. Telephone No. 3243.**PERCHERON HORSES ONLY.**

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Lakeport, Cal.**MANHATTAN FOOD
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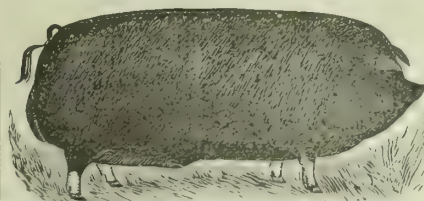
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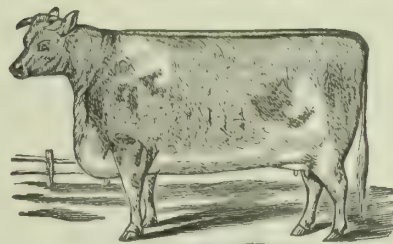
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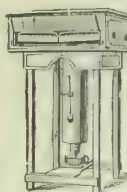
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S. F. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 10, 1889.
General trade in farm products the past week showed a decided increase over the preceding week, but with only few exceptions at lower range of values. The weather continues of the very best for the growing crops. The wheat market drooped throughout the week, until to-day (Wednesday), when a steadier feeling set in. The Eastern markets have fluctuated to lower prices, but were higher to-day. The English market has been sagging. To-day's cablegram is as follows:

LIVERPOOL, April 10.—Wheat—Steady. California spot lots, 75 to 75 3/4; off coast, 35 9/10@36; just shipped, 35 5/8; nearly due, 36; cargoes off coast, very few bids in market; on passage very inactive and cheaper; Mark Lane wheat, weaker; English country markets, quiet; French, very quiet; wheat and flour in Paris, firm; weather in England, wet.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Apr.	May.	June.	July.	Aug.	Sept.
Thursday....	74 1/2	74 1/2	74 1/2	73 3/4	73 3/4	73 3/4
Friday.....	74 1/2	74 1/2	74 1/2	73 3/4	73 3/4	73 3/4
Saturday....	74 1/2	74 1/2	74 1/2	73 3/4	73 3/4	73 3/4
Monday.....	74 1/2	74 1/2	74 1/2	73 3/4	73 3/4	73 3/4
Tuesday....	74 1/2	74 1/2	74 1/2	73 3/4	73 3/4	73 3/4

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday....	36 3/4	36 3/4	36 3/4	Quiet.
Friday.....	36 3/4	36 3/4	36 3/4	Slow.
Saturday....	36 3/4	36 3/4	36 3/4	Slow.
Monday.....	36 3/4	36 3/4	36 3/4	Slow.
Tuesday....	36 3/4	36 3/4	36 3/4	Steadier.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	Apr.	May.	June.	July.
Thursday.....	86 1/2	87 1/2	87 1/2	87 1/2
Friday.....	86 1/2	87 1/2	87 1/2	87 1/2
Saturday.....	86 1/2	87 1/2	87 1/2	87 1/2
Monday.....	86 1/2	87 1/2	87 1/2	87 1/2
Tuesday.....	86 1/2	87 1/2	87 1/2	87 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	Apr.	May.	June.	July.
Thursday.....	92 1/2	93 1/2	90	89 1/2
Friday.....	91 1/2	92 1/2	91	89 1/2
Saturday.....	90 1/2	91 1/2	91	89 1/2
Monday.....	89 1/2	90 1/2	89 1/2	89 1/2
Tuesday.....	89 1/2	90 1/2	89 1/2	89 1/2

NEW YORK, April 10.—Wheat—88 1/2¢ for cash, 87 1/2¢ for May, 88 1/2¢ for June, 88 1/2¢ for July and 87 1/2¢ for August.

CHICAGO, April 10.—Wheat—87 1/2¢ for cash, 88 1/2¢ for May, 88 1/2¢ for June and 84 1/2¢ for July.

Eastern Wool Market.

NEW YORK, April 5.—Bradstreet's says: The condition of the wool market remains unchanged. The demand from manufacturers is light, and except at concessions there is little disposition to stock up. The general tone of trade is rather weak. London sales opened on Tuesday with a good attendance of home and foreign buyers. Competition in merinos and cross-breeds is especially active. Prices show some advances as compared with January figures. Some expected supplies failed to arrive and the series will probably close before May 6th.

BOSTON, April 5.—The wool market has been easier this week in all departments. The supply of domestic wool on hand is small, and only a lack of demand prevents a decided advance. It is generally believed the present conditions are due to the fact that during the excitement last fall manufacturers laid in more wool than they needed, which, with a mild winter, makes the demand unusually small. The general range of prices this week has been nominally 1 cent lower to sell for all grades. Carpet wools are steady. The prices quoted are: California wools, spring Northern, 20¢@22¢; Southern free, 14¢@16¢; Southern defective, 12¢@15¢; fall, 12¢@19¢; Oregon wools, Eastern, 14¢@17¢; fancy, 18¢@20¢; fine valley, 19¢@21¢; medium valley, 20¢; Washington Territory wool, 13¢@16¢; May and Colorado fine, 15¢@17¢; coarse, 21¢@23¢.

Another telegram says at Boston the market is quiet. An unsatisfactory sale of heavy wools has tended to greatly curtail the consumption of wool. Fleece wools are weak, Michigan wool is in very light supply, and the stock of combings is also small. The new clip of Southern Texas wools is beginning to come forward from ranches, but there have been no arrivals in this market as yet. Current quotations for the leading sorts are as follows: Ohio and Pennsylvania X, 32¢@33¢; Ohio and Pennsylvania XX, 33¢@34¢; Ohio and Pennsylvania XXX and above, 34¢@35¢; Michigan X, 30¢@31¢; fine Ohio delaine, 35¢@36¢; No. 1 combing, 38¢@39¢; Texas Spring, 12 months, 20¢@23¢. The sales for the week at Boston are reported at 1,610,700 lbs, as against 2,252,200 lbs. in the corresponding week a year ago.

At Philadelphia the movement is sluggish and the market, as a whole, is weak, although there is less pressure to sell than is usually noticed at this time of year, because present stocks are exceptionally small and dealers do not expect to replace them from the new clip at low prices.

Miscellaneous.

NEW YORK, April 7.—Recent quotations for hides are all that the market will bear, as the stock is accumulating.

Evaporated peeled peaches are slow at 12¢@14¢ for prime to selected. Speculators are shy, as some were hurt in operations in under grades of the previous crop.

A few apricots here are well held. They seem to stand an extra season's carrying better than other tender fruit.

The demand for hops is light, but supports last rates. Fancy is scarce; second grades are higher, selling on merit. Pacifics are doing as well as before. The exports for the week were 240 bales.

Prunes are active for the season, 6 1/2¢@11¢ being

received, the latter choice and large to arrive. The sales included 2300 boxes on private terms.

Little interest is manifested in Pacific canned goods of any kind.

Lima beans are steady at \$3.10.

Local Markets.

	S. S.	B. S.	B. '89.	S. '89.	Dec.
Thursday....	143 1/2	143 1/2	143 1/2	143 1/2	143 1/2
Friday.....	143 1/2	143 1/2	143 1/2	143 1/2	143 1/2
Saturday....	143 1/2	143 1/2	143 1/2	143 1/2	143 1/2
Monday.....	143 1/2	143 1/2	143 1/2	143 1/2	143 1/2
Tuesday....	143 1/2	143 1/2	143 1/2	143 1/2	143 1/2

—New.

BARLEY.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday....	72 1/2	72 1/2	84 1/2
Friday.....	72 1/2	72 1/2	84 1/2
Saturday....	72 1/2	72 1/2	84 1/2
Monday.....	71 1/2	70 1/2	82 1/2
Tuesday....	70 1/2	70 1/2	82 1/2

BAGS—Continued good advices from the growing crops cause a strong tone, but no higher prices. Calcuttas spot are quoted at 8 cts, while for June-July delivery 8 1/2 cts is asked and 8 1/4 cts bid.

BARLEY—Not in the recollection of the oldest dealers has the market been so demoralized. Although prices have sunk to figures below cost of production and marketing, yet buyers confine their operations as much as possible. On Call, trading in futures has been light. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—100 tons, 82 1/2¢; 100, 82 1/2¢; 900, 82 1/2¢. Buyer season—200 tons, 70¢ @ ctt. Afternoon Session: Buyer 1889—200 tons, 82 1/2¢; 300, 82 1/2¢ @ ctt.

BUTTER—Receipts this week were not so large, yet the supply is in excess of the demand. The cooler weather admitted of freer shipments. Packing is still in order. The consumption is very large.

CHEESE—Eastern has come in more freely, causing a weaker tone. Californian continues to come in freely, and under strong selling is weaker.

EGGS—Receipts were lighter, and as the demand was very strong, better than at any time this year, prices are slightly higher. The consumptive demand with the Lenten season will fall off.

FLOUR—The market holds barely steady. The export movement is good.

WHEAT—In the sample market, trading has been quite active, with free sales reported in the country. The good crop prospects in this State and a falling market abroad cause a bearish feeling and buyers to bid down, but the light available supply is against the bears. This is exemplified in the slow progress made by ships loading in wheat; not one finished loading the past week. In futures, trading was fairly active at attractive fluctuations. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—1300 tons, \$1.41 1/2; 200, \$1.41 1/2; 900, \$1.41 1/2. Buyer 1889, after August 1st—300 tons, \$1.34 1/2. Seller 1889—500 tons, \$1.28. Seller 1889, new—100 tons, \$1.28 1/2; 100, \$1.28 1/2; 300, \$1.28. Buyer season—100 tons, \$1.39 1/2; 100, \$1.39 1/2; 200, \$1.39 1/2; 600, \$1.39 1/2 @ ctt. Afternoon Session: Buyer 1889—100 tons, \$1.41 1/2; 300, \$1.41 1/2; 100, \$1.41 1/2; 300, \$1.41 1/2; 300, \$1.41 1/2; 600, \$1.41 1/2. Seller 1889, new—100 tons, \$1.27 1/2; 100, \$1.27 1/2; 200, \$1.28 1/2. Buyer season—700 tons, \$1.39 1/2; 100, \$1.39 @ ctt.

[COMMUNICATED.]

Market Information.

Produce Receipts.

Receipts of produce at this port the past week were as follows:

Flour, qr. sks....	156,926	Middlings, sks....	2,514
Wheat, cts....	71,831	Alfalfa, "....	192
Barley, "....	14,534	Chicory, "....	—
Rye, "....	374	Broomcorn, bbls....	—
Corn, "....	17,571	Hops, bbls....	51
Oats, "....	4,282	Wool, "....	3,435
Butter, "....	1,500	Hay, tons....	1,940
do bxs....	1,235	Straw, "....	72
Cheese, cts....	854	Wine, gals....	177,310
do bxs....	234	Brandy, "....	2,070
Eggs, doz....	120,170	Raisins, bxs....	128
Beans, cts....	2,956	Honey, cs....	237
Potatoes, sks....	20,506	Walnuts, sks....	—
Onions, "....	575	Flaxseed, sks....	41
Bran, sks....	12,786	Mustard, sks....	545
Buckwheat, sks....	201		

Cereals.

The weather continues to be all that can be desired to bring out a large crop of grain, particularly that of wheat. Rains and cool weather in the middle and southern inland valleys have not only been timely, but assure, without some unexpected climatic change for the worse, a larger yield to the acre than at any time since 1880. In the other counties the outlook could not be better for a large yield than it is at this present writing. The plant on some of the summer-fallow land is most too rank, yet even if it is lodged by heavy winds later on, the improved machinery now in use can save all the grain. The only drawback for the summer-fallow appears to be that the plant will make more straw than grain. In other sections the plant is reported to be stooling out well. From the tenor of all present advices, the acreage of grain that will be cut for hay will be quite light compared with that cut in 1888 and 1887.

Advices from the Central States say timely rains had fallen, which allayed fears of a drouth in several of the large wheat-growing sections. The weather was mild, and vegetation fully two weeks ahead of the past three years.

The local wheat market the past week drifted to a lower range of values, and that, too, in the face that available supplies are being absorbed at a rapid rate. Although our market shows a decline, yet it has not been as marked as the foreign. This, no doubt, is due to the small stock here and the low charges. The lower prices abroad cause surprise among all classes of those who keep well informed on the market. The stocks abroad are smaller than for years, while the consumption is fully up to if not above the average of the past five years. One

reason assigned for the dull and weak market is the tight money market and the general lack of confidence on the part of speculators and millers in the future stability of values. Aside from this, with any signs of a material advance, the telegraph and steam are brought into requisition, and supplies are soon obtained.

The barley market has hung around last week's quotations. The tone has been heavy, with considerable difficulty reported in placing feed. Choice, plump, bright grades of brewing have held fairly steady. The stock here is steadily decreasing, but the new crop will begin to come on the market in the course of about 60 days.

Notwithstanding the low and unsatisfactory condition of the oat market, Oregon still sends us liberal supplies. The stock here is reported to be quite large for the season, while the consumption is not stimulated much by the lower range of values.

In rye there is nothing new to report.

The following is yesterday's cable from London: Wheat and flour on passage to United Kingdom, 1,854,000 qrs; wheat to Continent, 340,000. Imports of wheat into United Kingdom during the past week, 335,000 qrs; flour, 110 bbls. Indian shipments of wheat to United Kingdom during the past week, 52,500 qrs; to Continent, 10,000.

Fruit.

Strawberries and raspberries are coming in more freely, causing values to droop. The crop this year, it is claimed, will be larger than that of 1888.

Choice to extra choice apples are wanted, but poor are slow.

Heavy receipts of oranges have caused a lower range of values, under buyers bidding lower. The poor keeping quality of the bulk received is against holding, forcing consignments on the market. The cool, damp weather is against consumption. Shipments out of the State are not as large as they should be, much of this doubtless being due to the high freight charges.

Lemons and limes are without essential change.

In dried fruits, the market, at times, shows more life for some varieties, but after each spasmodic effort, it relapses into a state of almost utter inactivity. Although fruit-driers are not reaping much, if any, present benefit from the low prices ruling for dried fruits, yet the foundation is laid for a much larger consumptive demand in the future. The low prices have brought in distribution orders from points that never before used California dried fruits. The exports by sea the past week were as follows: 82,000 lbs. to Chicago via Victoria, B. C.; 1250 lbs. to Victoria, B. C.; 13,166 lbs. to Australia; and 9724 lbs. to New Zealand.

Raisins are still dull, but the stock is light.

The futile efforts of fruit-canners in securing lower railroad freights are against our fruit interests. With an enormous tariff on tinplate, and a syndicate formed in England to send the prices still higher, and the high overland freights, the outlook for our canned-fruit industry is very bad. Fully one-quarter to one-third of last season's pack is still on hand.

Feedstuff.

Under liberal supplies and a light demand, bran and middlings have drifted to lower figures. Other ground feed is without particular change. The consumption of all kinds of ground feed is quite light for the season of the year.

The receipts of hay are lighter, but as large consumers and dealers are well supplied, the demand is comparatively light, with values ruling in buyers' favor. The rainy, moist weather gives assurance of a continuance of good supply of natural pasturage, which has a direct bearing against the market for cured feed. The supply of extra choice hay is light. The crop outlook is of the most promising character.

Live-Stock.

The market for bullocks and mutton sheep is in a more unsatisfactory condition than noted in last week's issue, due to continued heavy receipts and a strong selling pressure. Hogs for the block are still wanted at full prices, but packing hogs are weak. Fresh milch cows move off fairly well on the basis of \$25 to \$45 each. In horses, there is nothing new to report. The demand for farm animals, it is claimed, will be very large this year.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, grain fed, 6¢@6 1/2¢ @ lb.; dressed, 9¢@10¢ @ lb.; soft, 5¢@6¢ @ lb.; dressed, 8¢@9¢ @ lb. Stock hogs, 4¢@5 1/2¢ @ lb. BEEF—Stall fed, 5¢@6¢ @ lb.; grass fed, extra 5¢@5 1/2¢ @ lb.; first quality, 4¢@5¢ @ lb.; second quality 4 1/2¢ @ lb.; third quality, 3 1/2¢@4 1/4¢ @ lb.; bulls and thin cows, 2¢@3¢. VEAL—Small, 5¢@7 1/2¢ @ lb.; large, 5¢@6¢ @ lb. MUTTON—Wethers, 5¢@6¢ @ lb.; ewes, 5¢@5 1/2¢ @ lb.; lamb, spring, 6¢@10¢ @ lb.

Wool.

Receipts are steadily increasing, as are the number of buyers. There is more disposition to sample, with some sales of southern effected. With better assortments, the market will be in position to quote more satisfactorily for the selling interests. As before stated, the grade of this year's clip shows a decided improvement over any season for three years past, and as the shrinkage in weight by scouring will be much less, a correspondingly higher range of values should obtain. The market at the East is lower than at this time in 1888, but this no doubt is due to the selling pressure so as to clean up stocks before the new season opens. The shipments the past week include 110,091 lbs. to Boston via Victoria, B. C.

Vegetables.

Seasonable vegetables continue to increase in quantity, causing a gradual sinking in values. Asparagus is being canned on a more extensive scale. It now looks as if more will be packed this year than ever before. Packing of peas will soon be in order. The opening price for canned peas is lower than in 1888. Foraine & Co., it is reported, have sold for future delivery, 25,000 cases at 8 1/2¢ a dozen. Cutting & Co. sold, it is said, at 85¢ for future delivery. Common peas come in sparingly, as the first crop is about exhausted. Rhubarb moves off fairly well, but cucumbers and tomatoes are slow at the high prices ruling.

Lessened supplies of new potatoes have caused a temporary firmer tone. The crop, it is said, will

not be as large as that of 1888. Old potatoes are still in buyers' favor.

Choice, well-conditioned onions are scarce and higher.

In beans, reds and limas continue firm, but all other kinds are easy. There were exported the past week 2154 lbs. to New Zealand.

Miscellaneous.

Zan & Planchich are putting in electric-power to make brooms by machinery. They claim that by this they will save the labor of four men, which means cheaper brooms, larger sales, and a greater consumption of broomcorn.

Continued free receipts of Eastern poultry keep the market from advancing.

Alfalfa seed is scarce and high, with a good demand ruling.

The receipts of honey the past week show quite an increase. The market appears to have a slightly easier tone, but quotations are unchanged.

Hops are dull, but the stock is light, particularly of the more choice grades.

Nuts continue to move off slowly at current quotations. There were shipped the past week to Australia 195 bags of walnuts.

There were shipped to Honolulu the past week 865 bales of hay.

The steamer which sailed for Australia the past week took out 850 tons of wheat.

From the Commercial News of April 10, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	200,314	261,331
On the way to neighboring ports 31,268		124,751
In port, disengaged.....	22,828	31,953
In port, engaged for wheat....	45,717	11,031

Totals.....300,127 429,966

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to April 10, the following are the exports from this port:

	1889.	1888.
Wheat, cts....	10,756,090	7,399,759
Flour, bbls....	604,276	612,316
Barley, cts....	1,254,426	637,433

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, April 10, 1889.

BEANS AND PEAS.	ONIONS.
Bayo, cts....	2 3/4 @ 2 5/8
Butter.....	1 1/2 @ 1 3/4
Peas.....	1 1/2 @ 1 3/4
Red.....	2 1/2 @ 2 3/4
Pink.....	2 1/2 @ 2 3/4
Large White ..	— @ —
Small White ..	1 1/2 @ 2 00
Lima.....	4 50 @ 4 90
Field Peas, blykes	2 00 @ 2 10
do green.....	3 00 @ 4 00
do Lima.....	2 00 @ 2 10

BROOM CORN.

South's B. ton. 70	75 00
Northern B. ton. 70	75 00

CHICORY.

California.....	6 @ 7
German.....	7 @ 7 1/2

DAIRY PRODUCE, ETC.

Cal. Com. to fair, lb 10	12 1/2
do good to choice 12 1/2	15
do fancy brands 17	17 1/2
do pickled.....	— @ —
Eastern in tubs.....	11 @ 12
do in rolls.....	11 @ 12

Cal. new choice..... 9 @ 10

do old..... 7 1/2 @ 8

do fair to good..... 6 @ 7

new..... 6 @ 7

EGGS.

Cal. ranch, doz.	17 @ 18
do store.....	14 @

SACRAMENTO:
Nos. 9, 11, 13, and 15
J Street.

and farmers who have been making \$2.50 an hour during the past year. J. V. Kenyon, of St. Louis, N. Y., made \$18 a day, \$76.50 one week. So can you. Proofs and catalogue free.
J. E. Sherman & Co., Cincinnati, O.

OTAY WATCH CO.,
Otay, C

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OLIVE and PERSIMMON TREES,

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Also Monterey Cypress, transplanted in boxes and open ground; Monterey Pine, transplanted; Pepper Trees, Juniperus Pittosporum, Veronicas, Fuchsias in great variety, and a fine collection of hardy Ornamental Evergreen and Deciduous Trees and Shrubs. Eighty thousand rooted Resistant Riparia Grapes. Olives, Picholine and other varieties. Guava, two sorts. Blackberries, Kittatinny, Lawton and other sorts. Fruit and Shade Trees in varieties. Address,

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WHITE ADRIATIC FIG,

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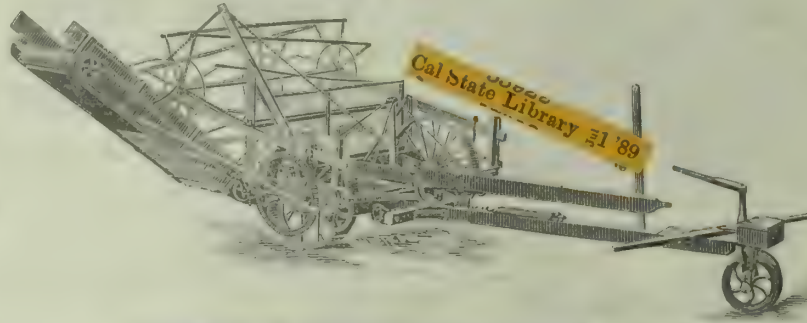
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2. Center Pitman, thereby giving a steadier motion to the Sickle.
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3240 pounds.	10 feet, Hodges' Iron Wheel, Single-Gear, with 40-inch Draper.....	\$300 00
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9. Tight Bottom under Draper behind Finger Bar.
10. Breast of Finger Bar ironed.
11. An additional Roller in top of spout, to prevent any grain from being carried down by Draper.
12. A New Clutch on Cross Shaft by which the motion of Draper can be stopped at will, while the Header remains in motion.

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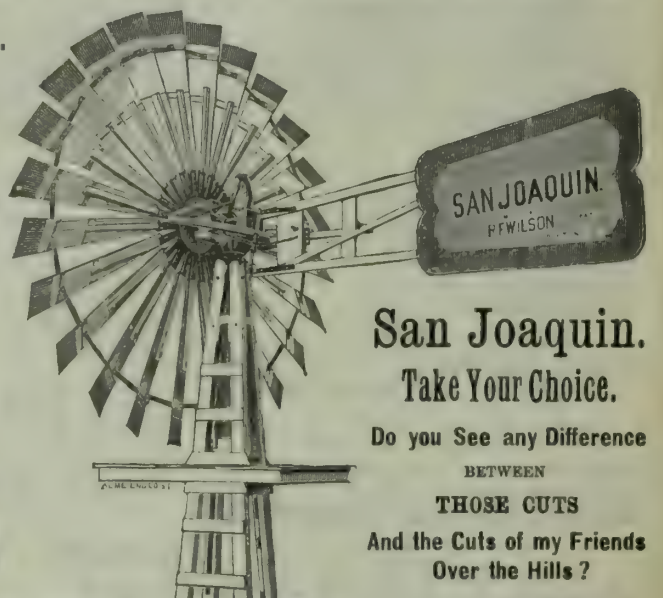
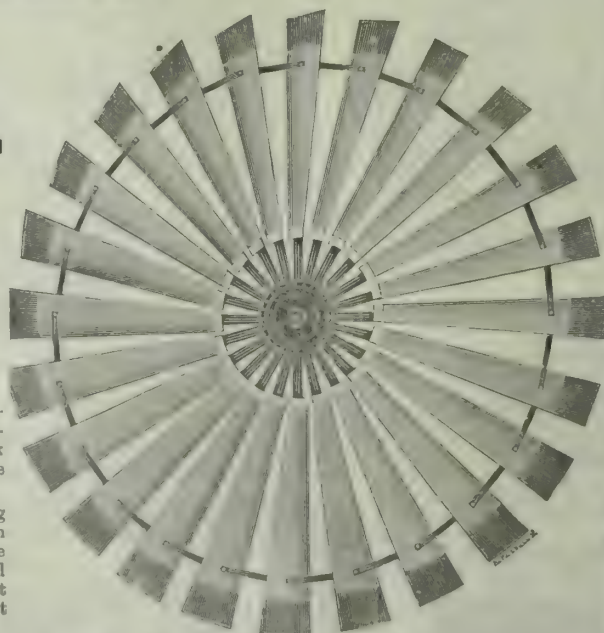
In Mexico they saw a block from the end of a log for their wagon wheels, tickle the bosom of the earth with a wooden plow, and use windmills that look like my noisy neighbor's mill. Look at the mechanical completeness of my Windmills. If my friends don't put their ads. beside mine, cut this out and place it side by side, and behold the contrast.

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BETWEEN
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And the Cuts of my Friends
Over the Hills?**

THERE IS A GREAT DIFFERENCE.

My wheel has 24 fans; count the others. My wheel has larger flanges, and has a wrought iron flange with square holes to prevent the bolts from turning when tightening. The other mill has nothing; drives the bolts into the wooden arms with nothing to prevent them from turning. Get one of their ads. and place it beside those pictures of mine. Look at the vane of my mill. Then look again.

The only difference between the San Joaquin and Improved Davis is the wheel, which will be found a little easier to put together than the Improved Davis.

I offer this mill as being superior to any mill of this kind, and am prepared to furnish dealers with any quantity, at the very lowest rates. With every mill I will furnish a written guarantee that it will do all that I claim for it. Send for ILLUSTRATED CATALOGUE and get complete information.

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Is to suit the wants of people who prefer this kind of a wheel. It is strong, easy to erect and will be found the best of its kind on the market.

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PUMPS, TANKS, HORSE POWERS, HAY PRESSES, Etc.

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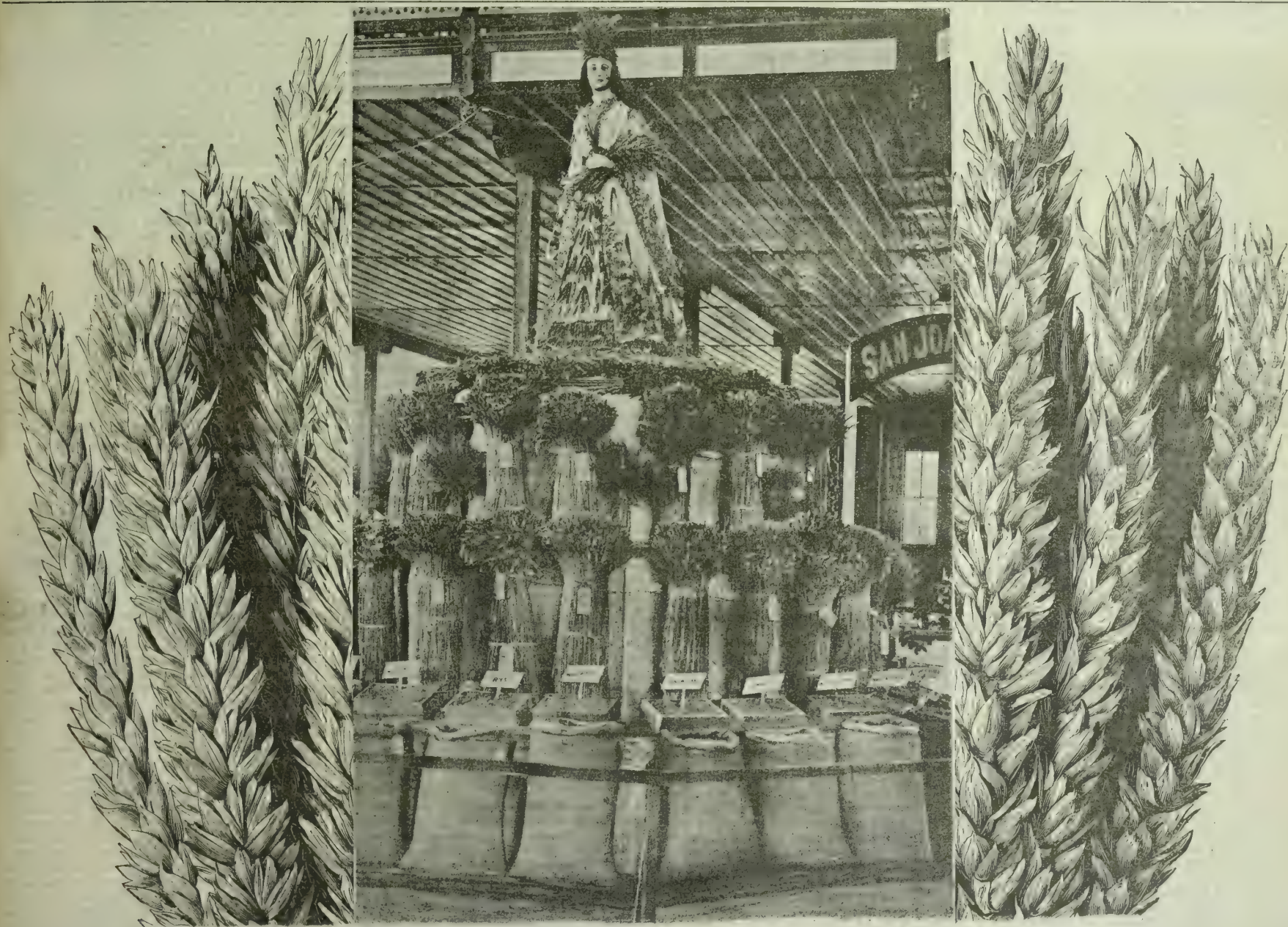
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SAN JOAQUIN EDITION—THIRTY-TWO PAGES.

Vol. XXXVII.—No. 16.

SAN FRANCISCO, SATURDAY, APRIL 20, 1889.

\$3 a Year, in Advance
SINGLE COPIES, 10 CTS.



SAN JOAQUIN COUNTY CEREAL EXHIBIT AT STATE FAIR OF 1888, AND BIRDSEYE VIEW OF STOCKTON.

CORRESPONDENCE.

Tuolumne County Notes.

Editors Press:—We step on to Mr. Parrot's ferry, and as the boat swings lazily across the Stanislaus, Mr. P. entertains us with the history of his pet orange tree, when the prow strikes Tuolumne county's shore, and, bidding Mr. P. adieu, we begin a long, plodding ascent up the winding road to the mountain-top. Turning, we enter the 741-acre fruit-wine-mining ranch of Mr. Geo. F. McPherson. It may be that other residences command as fine a view, but certainly none excel in the grandeur of rugged mountain scenery. Far below, like a thread of silver in an emerald carpet, winds the Stanislaus, while on every side the majestic mountains stand out in bold relief in all their grandeur—a view extensive and sublime. Here, amid this profusion of scenic beauty, Mr. M. has made his home. While the surface yields an income of \$6000 per annum from the sale of fruits and wines, the gold-bearing quartz veins on the ranch are made to contribute as well.

A spring of 100 inches of crystal water gushes out from almost the highest point on the ranch, affording an abundance of water both for irrigation and milling the quartz of the mines. It is not necessary to go further to see that these uplands of Tuolumne are adapted to fruit and vine. On this property there is growing in great profusion and almost in a wild condition a large variety of fruits, grapes and nuts. An English walnut tree of nine-foot girth challenges comparison. Mr. M. excuses the condition of the ranch by this statement: "I'm no rancher. I'm a miner." In the hands of Mr. Butler of Penryn, this place would soon have a wider reputation for its beauty and profitability. As it is, \$6000 a year, with little or no attention, shows what is possible in old Tuolumne if every attention were given.

With a parting glance at Mr. M.'s open-air panorama, we reluctantly gallop away to Columbia, stopping en route at the many fine homes on the hill ranches. On the following day we circle in and out of the numerous ravines, at whose bottoms, on the sides of the ascending mountains, and far up on the high table lands, are many pleasant homes with the evidences of prosperity surrounding them.

Placer county, with its gently rolling hills, affording every rancher an elevated site for his house, strikes the visitor as leaving but little to be desired, but here the house sits far up on mountain-top, like the eagle's nest, with all the wealth of stream and forest spread out below. It is hardly necessary to add that malaria cannot climb these heights. Already the impression takes hold of you that these orchards and vineyards were the work of the early settlers; the crowded condition of the trees (18 to 20 feet for apples) and vines packed in 3x4 feet space show the old disposition to get much from little. Here and there are exceptions, and the change to more room and thorough cultivation is marked by the greater degree of thrift pervading not only the orchards and vineyards, but the entire ranch.

Columbia has been loth to see her former prosperity gradually drift to Sonora, until today the town wears that look of "sleepy hollow"—a pleasant mountain town of 500 inhabitants contented with their lot, and in their contentment the peer of any king.

From Columbia, we jog on to Sonora, crossing Brown's Flat. The ranches here are necessarily small, and are mostly in the hands of Italians, who know so well how to make a small acreage of well-watered land produce the greatest amount. Nearing Sonora, the dump-piles on Bald mountain's sides show the mineral character of this section, and as we pass on into the thrifty city of Sonora, we see what the mines of Tuolumne have built up, and where her ranches find their best market. In Sonora, store, residence and saloon elbow each other for the coveted space on the main street, while up the steep hillsides and far out on the extended streets are many fine homes. The buildings, yards, and the general exhibition of neatness and comfort that meet you at every turn, give evidence of wealth and prosperity. The mines of Tuolumne have furnished the greater portion of the capital here invested, though the ranches are now looked to as the main support. Of the mines of Tuolumne it is not my intention to go into any detailed account in this article. To those interested in that field I would refer to my article on the mines of Tuolumne county in the *Mining and Scientific Press*. In the city of Sonora is located the Bonanza mine, and with the fear of trespassing I would like to say that this famous mine in the past month has yielded \$120,000, working but six men—a record unequalled, and one that the mine promises to excel in the future.

Sonora's population is about 2000. Pleasant homes, schools, churches, good society and the general exhibition of thrift and prosperity, make Sonora a pleasant place for residence.

As "all roads lead to Rome," so all roads in Tuolumne lead to Sonora. It is true the miner and the rancher come for their supplies and to dispose of their products. In the city is located the cider, vinegar and pickle factory of Mr. F. Macomber, surrounded by his fine apple orchard. The past year 10,000 dozen champagne

cider, 30,000 gallons in barrels and 600 casks of 50 gallons each, represents the cider output. Mr. Macomber has made the business the study and work of a lifetime, and the excellence of his cider has secured for him an extensive sale.

The apple-growers here find a ready market for all their sound fruit at prices ranging from \$10 to \$20 a ton. The apple orchards of Tuolumne are numerous, but not extensive. They show age, and as a rule are to be found in the bottoms. This seems to be the preferred location for orchards, though time will show that the uplands are exempt from the late frosts that now make fruit-growing hazardous in these bottom lands. With more space given to the trees, the grass kept out and thorough cultivation employed, I doubt if any county can excel Tuolumne in the quality of her mountain apples. That she does so well under present disadvantages is an evidence of what might be done under proper conditions. Until the good people of the county cease trying to raise hay and provide pasturage from their orchards no great improvement can be expected. In the more elevated portions of the county fruit culture is regarded as uncertain, but the same rancher will admit that "Mr. Hilltop, over there, seldom has his fruit hurt," and when you suggest that he turn his bottom land into alfalfa, and put his trees on the sidehills or summit, he adds: "I guess mebbly you're right there, stranger."

Bottom lands are at a discount throughout Placer county, and so they must become in all fruit-growing sections liable to late or hard frosts.

I would like to take the reader with me over the entire county, but space will not permit of so detailed a description; therefore I will condense it. From Sonora to Soulebyville, Summerville, the same mountain ranches prevail. These mountain ranches, however, are not on steep mountain-sides, as many would suppose, but once you leave Sonora the hills bow their heads to the husbandman and make the agricultural portion of the county one of valleys and uplands. In the neighborhood of Quariz mountain, Jim Town and Tuttle Town, the peach orchards crowd out the apple, which is here no longer profitable on account of the cod-lin moth. At Jim Town the farm of Mr. Preria shows the variety of industries that can be followed on one ranch. Wine-cellars filled with choice old wines speak for themselves of the quality and quantity of grapes, while almost all of the fruits grow here in their perfection. Rich gold mines add their store of \$20,000 pockets.

Chinese Camp, Jacksonville and all the lower plain land is adapted to the growth of the peach, the orange, fig and plum. The holdings are larger in this section, and in consequence there is not that exhibition of thrift seen on the smaller ranches. At present the principal crop is hay and grain. This finds a local market at good rates.

Once Tuolumne is given an outlet by rail to the city markets, her farmers can convert their barley-fields into fruit orchards that will pour out a steady stream of golden fruit equaling, if not excelling, her present output of gold from her numerous mines.

The Tuolumne County Water Co. and the Woods creek ditch furnish the farmers and miners an abundant supply of water at prices ranging from 8 to 15 cents an inch for 24 hours. As the mines are put in operation the local market must increase, and in consequence the present healthy condition of Tuolumne mining industries must benefit the farmer as well as the miner.

Many industries that could be carried on profitably are neglected. Dairying, for example, and numerous others might be cited. That the ranchers of Tuolumne do well in their present handicapped situation is an evidence of the fertility of the soil and a promise of greater reward to the wide-awake, energetic farmer who will make Tuolumne his home with the determination to succeed.

E. H. SCHAEFFLE.

Murphys, Cal., March 30, 1889.

POULTRY YARD.

Experience in Southern California.

Dedson Smith writes the *Rural Californian* an interesting account of personal experience. He says: I began six years ago with a flock of six hens. On January 1, 1888, I had 240 head of poultry. During the month of January I sold 58½ dozen eggs for \$17.07 and \$5.08 worth of fowls. February I sold 83 dozen eggs for \$18.42 and \$10.50 worth of fowls. March I sold 215 dozen eggs for \$41.96. April I sold 180 dozen for \$35.10. May I sold 227 dozen for \$39 and \$13.25 worth of fowls. In June I sold 160 dozen of eggs for \$36.30 and \$14.75 worth of fowls. In July I sold 120 dozen of eggs for \$27.30 and \$1.60 worth of fowls. In August I sold 121 dozen eggs for \$32.65 and \$1.05 worth of fowls. In September I sold 44 dozen eggs for \$14.30 and \$7.70 worth of fowls. In October I sold 22 dozen eggs for \$7.10 and \$1 worth of fowls. In November I sold 22½ dozen eggs for \$7.50 and \$1.40 worth of fowls. In December I sold 6½ dozen eggs for \$1.77 and \$1 worth of fowls. Total number of dozen eggs sold in the year, 1259 for \$278.47, or a little over an average of 22 cents a dozen. The highest price received was 34 cents a dozen in the

early part of January, and the lowest 16 cents in March and May. Amount received for fowls sold was \$57.33, making the sales amount to \$335.80. Increase of flock \$10, making total income \$345.80.

No account was kept of the fowls and eggs consumed in the family, it being calculated that this and the manure would offset the time spent in caring for the poultry. The total amount paid out for feed and Nisbet's poultry tonic amounted to \$188.42, leaving a net profit of \$157.38, which, divided by the number of fowls at the beginning of the year—240—gives a net profit per fowl of 65 cents. Allowing \$36 for interest, wear and tear on the investment of corals, etc., it leaves a net income of 100 per cent on the fowl investment.

My fowls were kept in confinement most of the time during the year, in flocks of 50, in corrals of three-feet wire fencing. They are largely of the Brown Leghorn variety, but I am crossing with Langshan cooks. I feed wheat at night mostly, and a bran mash in the morning with mashed boiled potatoes. Twice a week I give a good feed of cracklings (scraps from the lard manufacturer), and also Nisbet's poultry tonic, linseed meal and bonedust. In the middle of the day I gave them all the fresh beets or cabbages they would eat, not forgetting to supply them with plenty of teeth in the shape of small shells, gravel and broken glass. It is surprising how eagerly they will gobble down bits of broken glass. If you cut open the gizzard of a fowl that has eaten glass, a week afterward, you will find the rough, sharp edges all nicely polished off. I am satisfied from my experience that broken glass, or small, sharp-edged flint gravel, is far superior to shells for every purpose to which a fowl can put such things. They are of no use except to cut their food with, and when they become too dull for that purpose they are expelled from the system. I am never troubled with roup or other diseases, and my fowls never roost in the trees nor in drafts. Their roosting-places are built as tightly as possible on three sides, with plenty of open space on the fourth side, but entirely free from all drafts. Perfect cleanliness is essential. I keep down the mites by spraying the inside of all houses with boiling water in which I put one ounce of crude carbolic acid to the gallon of water, and I keep the roosts well covered with crude petroleum, such as we get in the foothills. I hatch my chicks in an incubator and mother them in a home-made brooder that is entirely satisfactory. I feed my little chicks very little soft food. Begin with cracked wheat, and after they are a week old feed whole wheat. Give plenty of water and green food, a little meat, tonic powder, bonemeal and linseed meal twice a week, not forgetting plenty of good sharp gravel.

Had my fowls had a free range, as some have, I might have saved \$150 of the money I paid out for feed, which would have brought up the profit to \$307.38, or a net profit per fowl of \$1.28.

Cackles From the Cackler.

Wherever poultry-raising and fruit growing are combined there is a double profit, provided that an interest is taken in both. The fowls are of great benefit to the trees—fertilizing the ground, keeping the surface finely pulverized (which is of great importance in California), and destroying many worms. The trees furnish shade and protect from cold winds, and some varieties furnish green food for the fowls.

The cause of soft-shelled eggs cannot always be determined with certainty. It is generally safe to suppose that the hen does not obtain enough shell-forming material, either from lack of the crude material in the shape of proper food, as lime, shells, etc., or an inability to digest her food properly. The latter probably occurs as often as the former. With closer attention to water, gravel, green feed and other conditions that promote health, the trouble will generally disappear.

It is never advisable to pull the wing primaries of the high-flyers to keep them from flying over fences. If pulled, new feathers begin to grow at once, and cause a drain on the system that will generally stop egg production. By clipping the primaries of one wing the fowls are secured, and the feathers will not be replaced until the next molt. For show birds it spoils them to clip the wings, and a flock looks much better with full plumage. Covering the yards with wire or other netting is the best remedy.

It is very important that fowls should always have access to some kind of "grinding" material. Sharp sand or gravel is good; broken tableware is perhaps the best if broken in pieces of suitable size. Large pieces take up too much room in the gizzard and do not present as much grinding or cutting surface as a larger number of smaller pieces. Indigestion and diarrhea frequently occur among fowls that are confined; these disorders would be greatly diminished and in many cases banished by providing proper grinding material.

Much enjoyment may be obtained in the care and breeding of common rabbits (when thoroughbred are not easily obtained) aside from their value as a food supply. Rabbits breed rapidly, and any particular line of breeding soon establishes desired results. If any particular color or markings are desired, a few generations from proper matings will bring them to a point where many of the progeny be of the desired color. In country places it costs little or

nothing except care to keep them, as they will eat a great variety of vegetation.

We have found in our experience that a constant and liberal supply of green grass or alfalfa cut in suitable lengths and fed to fowls in confinement is one of the best of regulators, and in addition to its value as food has a tendency to increase egg production. We prefer to use it when well grown, as its food value is then greater, thus working a saving of the more expensive grains. When out too young it has a tendency to cause looseness of the bowels similar to its effect on cattle or horses. The amount of grass that fowls will eat is astonishing to those who have never fed it to the fowls instead of having a green run for them.

The term "soft feed" is often misleading to the amateur, and the messes of cold, sloppy, indigestible stuff that is given to fowls with the best of intentions promote indigestion and open the door for colds and attendant diseases. The proper materials are of first importance. We have been using for some time and are well pleased with a mixture recommended by Mr. John McFarling of Oakland, viz.: 1 cwt. of corn, 2 cwt. of barley and 2 cwt. of wheat ground together; when wet it does not become sticky. We mix with it hot milk or water, just enough to make a moist, warm, crumbly mass. When thrown in the feed-troughs it readily crumbles, and is eagerly devoured.

He who would make a success of raising poultry for market should keep his eyes and ears open the year round, and make his calculations according as his judgment may direct. Good prices have been realized the past two months for broilers of all sizes, and the market is never full. When broilers sell readily from \$4.50 to \$7.50 per dozen alive in San Francisco markets, the experienced poultry-raiser need not be told that they are profitable. In New York, Feb. 11th, broilers that weighed 1½ pounds dressed sold at 45 cents per pound. These prices show that in spite of increased production by artificial means, the prices are higher and the demand increases.

HORTICULTURE.

Diseased Peach Trees.

Editors Press:—During the last few weeks Mr. E. J. Wickson and myself have been in receipt of several samples of peach and apricot limbs and twigs suffering in various ways. Some of these have been marked by peculiar pitted impressions on the bark and by a dropping off of the buds, with occasional discharge of the gum, and again others were badly affected by gum flow, which, according to Stockton correspondence, was especially profuse after the late heavy rains. Samples of peach limbs showing very strong discharge of gum were all affected by San Jose scale, the limbs being quite disfigured by it. All samples, as stated, have been more or less affected by gum exudations, but as such will always show itself when a peach tree is injured in some way, this does not necessarily point to a common origin in the several cases of the diseases; in fact I am certain that these diseases are traceable to two distinct sources. My opinion is that the peculiar affection marked by pitted appearance and dying off of limbs (samples of which I have collected from Solano, Santa Clara and Santa Cruz counties), which have been known by the general name of blight, owe their origin to a low form of fungus. I have, however, repeatedly tried in vain to find any growth of fungus; and specimens forwarded by me to Mr. Lamson Scribner of the Department of Agriculture, a year ago, did not show anything of the kind. My reason, therefore, in spite of the non-appearance of fungoid germs, for believing it due to fungus is that this disease is gradually spreading and showing itself in localities that for many years have been exempt from this disease, in these cases young trees planted among older affected ones being attacked. An additional reason to believe this trouble to be caused by a form of fungus is the fact that applications of sulphurous compounds and other fungicides have showed themselves to have good effect. White peaches, particularly those belonging to the group of which Alexander is a type, seem to be especially liable to this complaint. From Yuba county specimens of George's Late Cling have been received, showing a similar state, although differing somewhat. This variety seems, however, a rather unhealthy stock in more than one locality.

On my recommendation last year, a winter wash of copper sulphate (blue-stone), one pound to ten gallons, and summer wash of soda sulphide with whale-oil soap were used with beneficial effect in Solano county. In common with all fungoid diseases, the weather has a very great influence on this blight, and during great atmospheric changes will decrease and increase. Hence people often erroneously attribute troubles of this kind directly to the weather, when, in fact, the weather is simply favorable or unfavorable. The appearance of this peach blight in localities formerly free might in some instances be attributed to change of climate; but in others there seems to be no such reason. Hence I am more strongly led to the conclusion that the cause of the disease is a fungus. This peculiar blight, with many others, requires thorough study, and it would be well for those in position to give it thorough investigation.

The other trouble of gum flow, which again

this season has proved itself very serious, I believe to be due to various causes governing the sap flow. It may be caused by bad drainage, by the roots being scalded or rotted by moisture.

On heavy soils, even if deep, it may be caused by premature starting of the sap and subsequent arrest of the sap flow, owing to a lowering of the temperature. It may be due to too shallow soil, whether ill-drained or not; in fact, subject to great extremes. It may finally and is always caused more or less by the punctures of scale insects, especially by the San Jose scale. Our peculiarly warm winters, such as are often preceded by warm rains, are conducive to disease, especially when trees, owing to the packed condition of the soil, have gone to rest too early. All the stone fruits, but especially the peach and apricot, are subject to gum diseases, and in shallow soils, particularly granitic, where for some years they may do exceedingly well, they often fall a prey to it, while in deep, loose alluvial soils it is rather the exception to find them suffering.

As for remedies for gum diseases, the nature of the case in most instances prevents any. Where there is a tendency to early drying out of the soil, and in consequence of an extra early start, there is the remedy of applying moisture to prevent drying out—just sufficient to keep up growth until by reason of cool nights the trees naturally go to rest. However, if these conditions exist in thermal belts warm enough for the growth of semi-tropical fruits, the planting of evergreen fruit trees would be more suitable. In regard to the resistant quality of certain plum stocks to gum disease and also capability of enduring ill-drained heavy soil altogether unadapted to the peach, there are instances on record where peaches have done comparatively well on such stocks. It is questionable if the growing of the peach on such stocks will ever be a practical success. The opinion is divided as to the superiority of the St. Julian or of the myrobalan stock.

At the University Experimental Station trials are now being made with a large number of peach varieties on plum stock.

Finally, it goes without saying that a naturally well-drained soil is the best protection against sap diseases, and trees grown on such places will always suffer less, if any, from climatic conditions liable to derange the sap system.

Santa Cruz. W. G. KLEE.

Orange Scab.

EDITORS PRESS:—I desire to call the attention of your readers to a disease of the orange which has, during the past three or four years, occasioned considerable alarm in Florida, and which, so far as I know, has not as yet appeared in California. It attacks the leaves, young twigs and fruit of the sour orange and lemon, but so far it has not been observed, with the exception of one or two doubtful cases, upon other members of the citrus family. It usually makes its appearance in the form of small, yellowish, scab-like excrescences; these rapidly increase in size and run together, causing the parts attacked to shrivel and die.



There is always found accompanying this "scab disease," as it has been called, a fungus, but as yet it has not been proved whether it is the cause of the trouble or merely a saprophyte living upon the disorganized tissues. In 1885 the disease, outside of one or two localities, was almost unknown in Florida, but so rapid has been its spread that it is now recognized in all of the orange-growing districts as something to be feared and fought against.

Below we quote from several letters relative to this subject received from correspondents:

I send you a leaf of the sour orange which you see is diseased. I presume you have observed this before, but I have seen no mention of it in any of the papers. I am somewhat apprehensive that there is serious trouble ahead. Last summer was its first appearance, so far as I can learn, in this section, and it seemed to strike all the nursery stock as well as large sour trees at about the same time, and this summer it is just the same. The sour oranges (fruit) act the same as the leaf, and I notice that a few lemons have it also. If it strikes the sweet orange trees and fruit, the orange industry will come to a speedy end. It attacks the new growth on the sour trees as soon as the leaves get pretty nearly full grown and checks the growth of the young shoots. I have examined it under the microscope, but cannot determine whether it is a fungoid growth or is caused by insects. As yet I have not seen any of the sweet orange trees affected. I have two or three trees that are part sour and part sweet, and the sour limbs and leaves are all diseased while the sweet are not affected. As most of my grove are budded on sour stocks, I am apprehensive that if it should be caused by the sour sap it might ruin my grove. I should like to know more about this and what is generally thought of it, and if it is new in the State.—ALFRED BAILEY, San Mateo, Fla.

I send herewith some specimens of the leaf and stems of sour orange affected by a very destructive fungus. This fungus first made its appearance here last summer and seems to be increasing this season, particularly on young trees, making a vigorous growth. It seems to be confined to sour stock, though making some appearance on lemon trees this season. None has yet appeared on sweet orange trees or upon sweet buds on sour stocks, although growing alongside of a sour stock badly affected. It is very destructive to the growth of the tree and ruinous to young Murray stock, so I send you these specimens with the request to have them placed in the hands of the proper person in your department for minute inspection and report. A number of fine nurseries in my neighborhood are much damaged by it, and I fear it will be detrimental to the orange interest unless checked. Last season and this have been very rainy and cloudy—more so than usual—but little dry, sunshiny weather either season. In fact, the last 15 months have been exceedingly wet, with very little intermission. This may account for the appearance of the fungus.—CHAS. W. CAMPBELL, Ocala, Fla.

All the evidence at hand seems to indicate that the disease is highly infectious, and for this reason the orange-growers in your State should guard against its introduction. If it does appear, the affected trees should be immediately destroyed. Investigations are now being made here with the view of determining, if possible, whether the fungus already referred to is really the cause of the scab. Arrangements have also been made to conduct a series of trials with fungicides for the purpose of determining their effect upon the disease. I shall be glad to hear from your readers if this malady already exists in California.

B. T. GALLOWAY,

Chief of the Section of Vegetable Pathology, Washington, D. C.

SHEEP AND WOOL.

Wool Facts and Figures No. 2.

NUMBER II.

[Written for the Rural Press by J. R. F.]

In quoting the Eastern markets, trade journals often use the term "bright wools," and also "fairly bright wools." The former is used to designate wools shorn from sheep which range on cultivated land pasture. The wool is of a bright yellow color, the earthy matter not being sufficient to perceptibly modify the color. The wools designated "bright" are shorn from sheep in all the States lying east of the Mississippi river, although many parts of some of the more Central States have sheep that turn out this class of wool. The pasture upon which the sheep run has, by age, been brought to a thick, solid sward. Fairly bright wools are raised on sheep that run on cultivated pastures, with light swards, which has more earthy matter than the wools from sheep that range on heavy sward pastures. The bright wools shrink less than fairly bright, consequently with all else being equal, they command more money. In the Chicago market, what is known as Western and Territory wools comprise wools raised in the new States and Territories, where the sheep feed on native grasses, which, during the dry season, become parched, leaving the dry, sandy soil underneath as a fine dust or sand, which permeates the fleece, adding much to its shrinkage, and changing not only its appearance, but the strength of staple, more especially where the soil is alkaline, as it is in parts of Eastern Washington and Eastern Oregon.

Before entering more fully into the wool subject, it is fitting, in keeping with last week's article, to refer to the sending of wools to market. Growers cannot exercise too much caution in packing their wools for market.

Where the sheep have been corralled much, all impurities, such as "corral dirt," "tags," etc., should, as far as practicable, be carefully taken from off the fleeces, and not only packed in separate bags, but the same marked to designate them from the cleaner fleeces. It is always best to grade the fleeces as closely as possible, and each grade or kind marked on the bags. It is a mistaken notion that deception pays, for a buyer who understands his calling will take out several fleeces from each clip on sale, open and spread them out, so as to determine more fully the character of the wool, loss in scouring, burs, or other defects. It is safe to say that when the grower's statement about the clip is verified by this inspection, better prices are bid, but, on the other hand, when the statement is found to be wrong, then lower prices are bid, so as to cover any and all probable defects which are not visible without a thorough overhauling of the consignment.

The writer has seen clips sold in this market on the consignors' representation and at much better prices than the same grade of wools fetched when shipped by persons who practice more or less deception in packing.

In packing wool in a bag, while it is best to have the wool well packed so as not to let the bags be "flimsy," yet it is of the utmost importance that the fleeces be not packed too solid, or to such an extent that the wools cling together. Many dealers advise that when sheep range on land having burs or seeds that the parts of the fleece containing the most of either of them be taken off and packed separately.

The fact must not be overlooked that there are four distinct qualities of wool upon every

sheep, the finest running along the spine, including one-third of the back, to within about six inches of the tail. The second quality covers the flanks between the thighs and shoulders. The third covers the neck and rump, while the fourth extends upon the lower parts of the neck and breast down to the feet, as also upon a part of the shoulders and the thighs to the bottom of the hind quarter. Another thing must not be overlooked, viz.: the harshness of wools is not dependent solely upon the breed of the animal, or the climate, but it is also owing to certain peculiarities in the pasture derived from the soil. On this coast it is found that the wool from sheep that pasture upon a rich loamy soil is softer and more silky than that from sheep ranging on chalky or otherwise dry, harshy lands. Before Tehama county was so thickly settled the wools from there having a yellowish-reddish color, taken from the soil, were softer and more lively than those from the other districts.

Before the "Montezuma plains" in Solano county were thickly settled, the wools from the sheep pasturing there were of better quality than were the wools from the same breed of sheep pasturing in less favored sections. For a better illustration of this, take Eastern Oregon wools. That from the sheep ranging or pasturing on the alkaline plains is harsh and very poor, but the wools from the same breed of sheep which range on the hillsides or in the mountain valleys are of superior quality and command several cents more to the pound.

Wool-growers should, in breeding sheep more for wool than mutton, bear in mind that for what is known as clothing wools there is always a ready market, as of necessity the quickness of the demand and relative prices depend at all times upon the style of goods that is in fashion. A prerequisite to placing clothing wools is for the color of the fleeces to approach the purest white that can possibly be bred. This is not only absolutely necessary in manufacturing white goods, but also for the cloths that are to be dyed bright colors. For the latter a clear, white ground is essential to give a due degree of richness and luster. Fleeces having black or gray fibers, even if very few, are unfit for many kinds of white goods, for when the cloth is stored they show distinctly, forming reddish spots which is against the market value of the cloth. There is another defect found in some wools when the sheep have not been properly bred, viz.: hairs. The writer has often seen them in wools, and against such buyers are greatly set, for it is impossible to dye hairs; besides, the latter are crisp and hard, and viewed under a microscope present a smooth surface, whereas each wool fiber is more or less spiral and covered with scales, like teeth of an extremely fine saw, underlying each other. Hairs being smooth and straight do not hold in weaving, but, on the contrary, the scales or teeth of wools fit into each other and the deeper they intermingle the closer the structure of the thread and consequently the stronger is the cloth manufactured. It is this that gives greater value to some wools than to others, which will be noted more at length in some future article.

THE STOCK YARD.

Sussex Cattle.

Robertson & Co. of Woking, Surrey, England, the well-known cattle-exporters, send us the following interesting sketch:

The Sussex cattle are so called from the county of that name in England where they most abound, and are distinctly a beef breed. The cows, almost without exception, give milk of most excellent quality, and enough for family use, besides that taken by the calf, but generally in quantities insufficient for dairy purposes; they fatten when dry, perhaps more readily than the ox. The average weight of a well-fatted two-year-old bullock may safely be put down at 1400 lbs.

For a short description, by way of comparison, imagine a Devon of excessive size and if a cow with small udder, and the picture will convey an accurate idea of the Sussex. More particularly, horns of medium length, nose tolerably wide, with muzzle of flesh color, thin between the nostrils and eyes, eyes rather prominent, forehead inclined to be wide, neck not very long, sides straight, not coarse at joint of shoulder, wide and open in the breast, which should project forward; girth deep, legs short, chine bone straight, ribs broad, loin full of flesh and wide, hip bone not very large and well covered, rump flat and long, tail whitish at tip and should drop perpendicularly, thigh flat outside and full inside, coat soft and silky, with a mellow touch, color solid red, both light and dark, sometimes the two shades mingling and making a beautiful dappled bay. The horns of the bull and ox are not so long as those of the cow; and on the authority of an eminent breeder, the horns vary somewhat in animals of the different families, and a few gray or white hairs nearly always single, except upon the forehead, are regarded most favorably.

The special merits claimed for the breed are—large size, early maturity, propensity to fatten, prime quality of flesh laid on in most desirable parts, hardihood of constitution and uniform popular color, and the ability to improve these characteristics upon their offspring; that it is the equal of the best under most auspicious conditions, and excels upon the

treatment commonly allotted to the cattle of commerce.

Their origin, like that of all the oldest breeds of English cattle, is involved in obscurity.

The breed is universally recognized to be a distant one, and has been a prominent feature of Sussex from time immemorial, and has preserved through all vicissitudes the same characteristics; great weight, aptitude to fatten, and red color unchanged, except so far as improved by better feeding and greater care. Originally they were used chiefly for draught purposes, their great size and strength, and activity withal, enabling them to draw promptly the heaviest loads and till the stiffest soils. But even in remote times the quality of their flesh was highly praised, and when the oxen became aged they were bought up, grazed a year, and supplied the market with animals weighing from 180 or 200 stone. One of these oxen, called the Burton, and fattened at Burton Park, near Petworth, measured 16½ hands in height, 8 feet from the back of the horns to the root of the tail, 2 feet 8 inches across the back from hip-bone to hip-bone, 4 feet 7 inches depth of shoulder, and 10 feet girth behind the shoulders, and weighed 287 stone of 8 pounds.

These cattle have always been the favorite of the tenant-farmer (than whom there is no better judge of a profitable animal) of Sussex and parts of the adjacent counties, and have constituted for many years one of the chief attractions of the local stock shows. At a comparatively early day in the history of registration the *Herd Book* was established, tracing pedigrees with more or less completeness to the year 1885; and in recent years, stimulated by the large sales of, and high prices paid for, animals of the principal strains for export to the United States, some of the breeders have sought to bring them forward at the leading shows in more distant parts of England.

Intrinsic merit has earned quickly for them abroad the high reputation they have already enjoyed at home, and their right to be classed as a fine beef-producing breed is fully admitted on all sides.

No student of the question of "meat production," however careless, can fail to stumble upon the honors achieved by the "Sussex" on the scales at Smithfield. And on the other hand, the progress made at the shows for breeding stock has been steady and sure, and scarcely less satisfactory. At the late Bath and West of England Show, held at Brighton, June 8, 1885, the Sussex bull, Goldsmith (391), with two of his progeny, took the second prize in a breed contest in a class of 20 entries; these entries embraced the prize animals of some of the most celebrated herds in England, viz., Sussex, Shorthorn, Hereford, and Devon; and among the vanquished are to be found Mr. Handley's group of Shorthorns, headed by "Self-Esteem 2d," and the Earl of Coventry's Hereford led by "Good Boy." A few days later, at the Royal Counties Show, at Southampton, "Good Boy" succeeded in wrenching the victory from "Goldsmith," but to decide between them the services of a third judge was found necessary; and, as at Brighton, the animals eliminated from the struggle illustrated the brightest qualities of the leading English breeds.

The experiments that have been hitherto made in the exportation of Sussex cattle to the United States of America (where they gained honors at Kansas City and Chicago Fat-Stock Shows in 1885, 1886, 1887 and 1888), South America, and Canada have been remarkably successful, their acknowledged hardihood of constitution rendering them more secure than other varieties from the dangers of the voyage and the exposure and risks of the prairie.

A RICH FIELD FOR THE SCIENTIFIC STUDENT. Some one has very correctly remarked that the Pacific Coast is almost a virgin field for the scientific student. Nowhere in the world can the history of creation be studied to better advantage. The geological survey of the State, which was undertaken in 1860 for the benefit of the mining interest, was brought to a close in 1874, and very little knowledge has been acquired since. It is known that, to speak familiarly, this was probably one of the last parts of the world to be finished by the hand of the Creator; the Sierra was still quaking and upheaving when volcanic agency had exhausted itself elsewhere. Parts of the Coast Range may have been lifted up and the rocks tilted on edge when man lived on the flank of the Sierra in the later tertiary age. High up on the same Sierra are cretaceous rocks which are obviously of marine origin; there must thus have been a time—and probably a long period—when Lassen county was washed by the waves of the ocean. Nearer home, on the Sacramento and in parts of Contra Costa county, are abundant pre-historic remains which have never been thoroughly examined. Here alone there is a field where the academy may find opportunities of usefulness. The whole State is full of marvels to the scientific mind, and it is time that they were investigated by competent persons.

GIANTS OF THE FOREST.—A British Columbia paper says: "This is the veritable land of the giants of the forest, and one of the first things that strikes strangers is the enormous size of the trees. But in spite of their exclamations of wonder, very few of them really comprehend how large the trees really are. A stick of timber was cut the other day at the Hastings mill which was 106 feet long and 24 inches square. There were sawed out of the log 12,000 feet of cedar lumber, weighing 30 tons."

Buhach.

While the real meaning and derivation of the word Buhach may be left to the researches of linguists and philologists, since it has been adopted as the trademark and name for a California product, it has become a familiar word throughout the United States. There have been insect powders and insect powders upon the market for many years, but none so effective as Buhach, and its wonderful insect-destroying properties has made it a necessity in every house in the land.

Buhach is a fine powder made from the blossoms of the plant *Pyrethrum Cineraria Folium*. This plant is a native of Persia, Asia, where its peculiar properties were first discovered. It was afterward introduced into Dalmatia, Austria, and has been extensively cultivated there and in the adjoining States, Herzegovina and Montenegro, for many years, and the importance of the industry was considered so great that especial efforts were made to prevent the sale of the seeds or plants for export, in order that its production might be confined to that country. Insect powder made from the Dalmatian plant was first put upon the European markets about 30 years ago, and it has been found in the leading markets of the world ever since that time. Trieste, Austria, is the great market for the product, from whence it has been shipped to all parts of the world. Large quantities of the flowers and powder are imported from that city to the United States, a single house in New York having imported on an average 150 tons per annum for the last ten years.

The plant was first grown in California by G. N. Milco, who, being a native of Dalmatia, and knowing of its value to that country, was after many efforts enabled to procure seed from which he successfully grew the first plants about 12 years ago. After making many experiments in order to find the soil and climate best adapted to the plant, he in 1880 associated himself with J. D. Peters and A. C. Paulsell under the name of the Buhach Producing and Manufacturing Co., and commenced the growing of the plants on an extensive scale upon a tract of land situated near Atwater, Merced county. Mr. Paulsell soon retired from the company, and the business was continued by Messrs. Peters & Milco until the death of the latter in 1886, from which time it has been prosecuted by J. D. Peters, who had from the organization of the Buhach P. & M. Co. furnished the capital for inaugurating the industry. From the blossoms grown upon the Buhach plantation in Merced, the insect powder now so generally known as Buhach has been manufactured. The flowers are shipped from the plantation to Stockton, where the mill is located in which the Buhach is manufactured.

At present the company has about 300 acres under cultivation in this plant, and the area is being annually increased as the demand for the powder becomes greater. Its cultivation requires careful and intelligent supervision, and it cannot be successfully grown except by irrigation. It requires at least three years from



THE BUHACH RANCH IN MERCED COUNTY—VINEYARD AND PYRETHRUM DRYING GROUND.

the seed to grow plants capable of producing a paying crop of flowers, and then the plant will continue to produce for four or five years longer, although it is in its prime and most productive when four and five years old. It grows to a height of about 30 inches, and is planted in rows four feet apart and from 15 to 24 inches apart in the row. The flowers are generally harvested in the latter part of May. The stalks are cut at the roots of the plant, and then by hand the flowers are broken off by passing the stems through a sort of comb, which detaches the flowers, which fall into a box and are then carried to the drying-ground, where they are spread upon sheets and exposed to the rays of the sun during the day, being often turned in the meantime, and at night are covered to prevent them from absorbing any moisture. The perfect drying of the flowers is a most important operation, as in order to retain the volatile oil which gives to the powder its insecticide properties, it is very necessary that the flowers should be dried quickly and thoroughly, and be protected during the process from all moisture. A light dew falling upon the flowers during the drying process will color them and reduce their insecticide

properties. In this respect the California-grown flowers are better cured and consequently more valuable than those grown in Dalmatia.

It is also a well-known fact to those familiar with the Pyrethrum flowers, that they are liable to be adulterated by the admixture of flowers of no value, which, however, closely resemble the Pyrethrum, and experts may be deceived unless the powder manufactured from the combination is thoroughly tested to prove its insecticide qualities. In the year 1888, a large quantity of the flowers of the Hungarian daisy was placed upon the market, mixed with a small proportion of the true Pyrethrum insect flowers, and the powder made therefrom was sold at prices very much in excess of its true value.

As the Buhach manufactured and put upon the market by the Buhach Producing and Manufacturing Co. is always made solely from the flowers of the California grown Pyrethrum, it is of better quality than any other insect powder, and can always be relied upon to be as represented when purchased in the original packages, on which is the trademark of the company. Powders are sometimes manufactured from the whole plant, including the

stems, leaves and flowers, which possess, to a certain extent, the insecticide properties of Buhach, and are undoubtedly far superior in strength to many of the insect powders that are found upon the market; yet as the blossoms of the Pyrethrum plant are richer in the essential oil which gives the peculiar insecticide properties of the plant, powder manufactured solely therefrom is the strongest and best that can be made.

The best demonstration of the truth of the above statement is shown by the rapidly increasing demand for Buhach. For several years after the company commenced the manufacture of the powder, the demand was moderate and could be easily supplied. The situation is very different at the present time, for now the whole product of the plantation is readily sold, and the company is forced to use every effort to enlarge the area devoted to the cultivation of the plants to meet the increasing call that is made upon them by their customers.

Having determined that they will not put anything upon the market under the name of Buhach excepting that which is manufactured from the best Pyrethrum flowers, they are unable to manufacture it excepting from flowers of their own raising, which are acknowledged by experts long in the business of dealing in flowers to be the best produced in the world, as the peculiar condition of the soil and climate of the locality where the plantation is situated seems to be particularly favorable to the production of a plant rich in the essential oil which makes it so effective in the destruction of insect life.

Although the industry may still be regarded as being only in its infancy, it has required a large expenditure of capital to place it in its present position. Many thousands of dollars have been expended in advertising, and many more in experiments before the proper methods of cultivating the plant and of manufacturing the powder were ascertained. Pluck and perseverance have, however, overcome all obstacles, and the future of this industry is now very promising.

The use of Buhach in almost every house to prevent the ravages of moths, and to suppress the annoyances so long suffered from mosquitoes, flies and other troublesome insects, has become too general to require any explanation in an article like this. It is used by thousands of people, and all who use it fully endorse its efficacy. It is now sold in every State in the Union, in Mexico, Central America, the Sandwich Islands, Japan and Australia, and everywhere it is once introduced it gives satisfaction, and is pronounced the chief of its kind.

The Buhach P. & M. Co. has lately been incorporated with the following as its Board of Directors: J. D. Peters, J. M. Welch, D. S. Rosentbaum, A. B. Sperry and N. M. Orr. J. D. Peters is president of the company and N. M. Orr, secretary.

The engravings on this page show interesting features of the Buhach plantation, which has large areas of fruit as well as of the insect-powder plant. The plantation is one of the best improved tracts of land in Merced county.



THE BUHACH RANCH—DRYING GROUND AND SACKING FOR SHIPMENT TO THE MILL IN STOCKTON

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Temescal Harvest Feast.....	April 20
Waldenville Harvest Feast.....	April 20
Enterprise Reunion.....	April 20
Grass Valley Public Installation.....	April 27
Napa, public meeting to reorganize Grange, Court House, 11 A. M. Addresses by State Chaplain & Goodenough and others.....	April 27
Tulare Picnic, Goldman's Grove.....	May 4
Yuba City Grange Picnic.....	May 14
San Joaquin Co. Pomona, Lodi hall, Lodi.....	May 25
Bennett Valley Picnic.....	May 25
State Grange, Sacramento.....	Oct. 1

Oregon.

Lane Co. Pomona Mt. Holly Grange.....	May 4
State Grange, Salem.....	May 28

Farmers' Meetings at Napa.

A call having been signed by some 35 farmers and their wives favoring the reorganization of Napa Grange, No. 2, at Napa City, April 13th, Past Master J. V. Webster, F. B. Logan, Deputy, and A. T. Dewey, Sec'y of the State Grange, met those assembled at the courthouse. The threatening weather in the morning no doubt detained many from attending, and it was finally decided best to hold another meeting, later, for organizing.

W. A. Fisher, the first Master of Napa Grange, was chosen chairman, and L. M. Turner secretary. J. V. Webster gave a brief address, speaking forcibly and with inspiring effect upon his listeners. After remarks by Messrs. Fisher, Strong, Tallman, Leonard Coates, Capt. Peterson of St. Helena, and Mr. Dewey, it was decided to adjourn the meeting to the same place at 11 o'clock A. M., Saturday, April 27th. At that hour an address will be delivered on matters of practical interest to farmers by Rev. S. Goodenough, Chaplain of the State Grange, who is a practical orchardist near Santa Clara.

An opening address will also be expected from the chairman, Mr. Fisher, as well as remarks by other practical farmers and speakers. Appropriate music will also be likely prepared, with other exercises suitable to the occasion and profitable to all who may attend.

James G. Clark, the talented poet and songster, has consented to be present and add much pleasure to the occasion by his soul-stirring music. "The World Will Be the Better for It," and several songs written by himself, will be among the number rendered by him.

A goodly number of old members of dormant Granges at Vallejo, Yountville, St. Helena and other places are expected to join with the old members of Napa Grange. The present laws of the Order permit such to be taken in at once without the formality of an initiation upon the reorganization of dormant Granges.

It is therefore hoped there will be a large turnout of old members that are still admissible, also other farmers and their wives who are eligible may be in attendance at the open meeting in the morning, and that the present list of petitioners will be increased more than double the number of signers stated above.

Chairman Fisher, it will be remembered, took a leading part in the organization of the first Farmers' Club in Napa county, and was for a long time its able and respected President. The files of the Rural Press will show the club to have been one of the best and most successful of farmers' organizations then existing.

The Grange that succeeded the Farmers' Club was also for a time a large and prosperous one, but, like many others, it succumbed through the influence of the failures and early mismanagement of affairs of the Order. Now, from the revival of the Grange upon a safer and surer foundation, and better conduct by reason of the experience of the past, it is appropriate that the first large Grange organized on this coast should re-enter the front ranks in the new era of Grange advancement in California.

To explain further, Pilot Hill, No. 1, was organized by Brother Bailey in the foothill regions of El Dorado county about two years before the active Grange movement commenced in this State, Brother Bailey having been instructed in the secret work by letter. The Grange instituted by him, which comprised but a few members, we think hardly came into good working order until after Napa, with a considerable number of other Granges, were well along in their labors. Then Pilot Hill revived a useful life, although never very numerously attended. It has now been operative for several years, and although in a section of country sparsely settled it seems not improbable that Napa Grange, when reorganized, will stand second numerically on the list of live Granges in this State.

We think there is no agricultural society which continues to hold regular meetings in Napa valley, the several branches of farming and viticultural organizations having ceased to hold their accustomed gatherings.

We sincerely believe there is spirit enough amongst the agriculturists of Napa county to support a good and prosperous Grange, which in return will foster and protect the true interests of all branches of agriculturists in that rich, intelligent and prosperous portion of our State. Let there be no holding back and waiting for others to lead, as is too often the case with farmers. This waiting for others to do their business is largely what is the matter

with farmers in general. Come out without further notice and listen and determine what your duty is. Then perform it.

We hope to give more definite information in our next regarding the exercises for the day, including the subject of Bro. Goodenough's address. It is not unlikely that he will be accompanied by other speakers from abroad.

After the public speaking, to which all interested are invited, a meeting will be held for conference on the part of those eligible for the reorganization of Napa Grange, either at that time or some subsequent date. All those who have signed in favor of reorganization are specially requested to be present. Pass the notice around!

Harvest Feast at Santa Rosa.

MESSRS. EDITORS:—Last Saturday, April 13th, was a gala day in the history of Santa Rosa Grange, No. 17, P. of H. It had been previously announced through the columns of the Rural Press that Santa Rosa Grange would meet in regular session April 13th, at 10 o'clock A. M., for the purpose of conferring the third and fourth degrees upon a class of 12, and that an officer of the State Grange was expected to be in attendance to assist in conferring those degrees.

Worthy State Master W. L. Overhiser having accepted the invitation, arrived on the 10 o'clock train from San Francisco and was escorted to Hahman's hall. Shortly after his arrival, Worthy Master E. A. Rogers opened the Grange in due form, and after going through the regular order of business, the conferring of degrees was taken up and the third and fourth degrees were conferred in an impressive manner upon a class of 12 brothers and sisters. A recess was then taken until 2 o'clock for the purpose of participating in the Harvest Feast. The four tables fairly groaned with good things supplied by the good Matrons of Santa Rosa, Bennett Valley and Sebastopol Granges. We noticed here that Santa Rosa Grange secures the services of some good sister to attend to the detail work of the Harvest Feast, and the sister is allowed a fair compensation for her services. We believe this is a good idea and should be practiced more among the subordinate Granges. During the recess instrumental music and dancing was indulged in by the younger members of the Grange.

At two o'clock Grange was called to order and Worthy Master Overhiser instructed the Grange in the secret work, after which a literary and musical program was rendered by the younger members of the Grange, which was well received and met with much merited applause. We are unable to give the names of all the sisters who participated in the literary and musical program.

Bro. E. W. Davis, Worthy Overseer of the State Grange, was called for and made a very impressive speech. Worthy Master Rogers invited all present to meet at Sister Saxon's in the evening. We are unable to give a report of this meeting, as the Worthy Secretary has promised to write it up, but up to this time we have not received her report. We hope she will send us a full account of both meetings, also names, etc., of those participating in the literary and musical program.

Grangers' Business Association Report.

At the meeting of the stockholders of the Grangers' Business Association, held at the office of the association, 108 Davis St., San Francisco, the following were elected to serve as a Board of Directors for the ensuing year: I. O. Steele, A. D. Logan, Chas. Wood, Thos. Upton, Thos. Flint, J. C. Campbell, E. W. Steele, A. T. Ha'oh, J. W. Mitchell, T. E. Tynan and M. D. Atwater.

The affairs of the association were fully canvassed and found to be in a most flourishing condition. The report of E. Van Every, manager of the association, for the year ending March 31, 1889, shows a net profit on the year's business of \$34,274.19.

From this profit a dividend of ten per cent on the capital stock of the association (\$1.25 per share) was declared by the Board of Directors of the association on April 9, 1889, payable immediately at the office of the association, 108 Davis St., San Francisco.

After deducting the dividend there remains upward of \$24,000, which has been added to the reserve fund of the house.

During the past year further improvements have been made at the Grangers' warehouse at Port Costa, including the addition of a smutting and grading machine run by steam-power. This was found indispensable, owing to the large increase in the number of ships which loaded at their docks, and which received cargoes through their hands during the year.

The commission business in the city is also in a flourishing condition and is constantly increasing, and we hope and trust that the stockholders will show their appreciation by their liberal patronage.

READERS will not find our fourth page devoted to the P. of H. this week, so we wish to call their attention to the fact that the first page is really one in which the Grange takes an interest. Ceres stands proudly surrounded by cereals raised in San Joaquin county, and tastefully arranged by the Patrons of Husbandry.

Appoint Your Picnics.

It is time now for each Grange in this State to set a day and make arrangements for at least one good picnic. If it is not convenient for a number of Granges to join in a union picnic, have one in for own Grange. Remember that a picnic is always enjoyable whether attended by thousands, hundreds, or by a score or two only. Generally you get more fun for the labor laid out in preparation than any other entertainment.

Grange picnics should not be neglected, if only for the reason that our young people are entitled to such festivals at least once a year. In appointing committees be sure to put some young brothers and sisters on the working list. Do not invite any one to make long speeches. Give outside speakers a chance if you can secure bright thinkers and good speakers to help pull along. Make every picnic the occasion of securing new names for members, especially young members. Write early to this office if you want good speakers from abroad, by paying expenses only.

We want to hear from every Grange in the State on this picnic business. Give us a chance to make the announcements through our papers in good season. Send information to your local publishers. They will appreciate having it written out handy and give you a better notice therefor.

Hollister Is Booming.

MESSRS. EDITORS:—Our Worthy Treasurer, Dr. Flint, will be at your office this week with a list of supplies for our Grange; we neglected to put down rituals. We are very anxious to have the new combined rituals, so that we can go through with the initiations with more dispatch. Can we obtain them this week in time for our meeting Saturday, the 20th?

We have been told that the new ritual would be furnished us gratis, providing we should get a class of ten applicants.

We have done better than that. We have reinstated three old members, initiated five in the first and second degrees, and have in hand 18 applications to be initiated next Saturday, April 20th. Our W. M. is doing good work in building up the membership of the Grange. We are hindered somewhat for want of the necessary supplies. Yours fraternally,

A. DUNLAP, Sec'y.

Hollister, Cal., April 15, 1889.

A Grange for Hanford.

MESSRS. EDITORS:—Bro. Moore, Master of Tulare Grange, and I have arranged to attend to the matter of getting up and organizing a Grange at Hanford during the last week of this present month. Without going into particulars I will say that I think we will make it win. * * Will write you again in about two weeks and let you know how we are prospering in regard to our proposed new Grange.

Hanford, April 13th.

A. F. JEWETT.

[This is cheering intelligence. We hope the efforts of our worthy brothers will be crowned with success. The new life which is now being infused into our Order will doubtless enable them to get a good start.—EDS.]

TEMESCAL HARVEST FEAST.—Ten o'clock Saturday, April 20th, is the hour set for another good meeting of this Grange, at Odd Fellows' Hall, Oakland. The Temescals hope to be joined by a goodly number of Edens, and that the Master and Past Masters of Eden Grange will come, laden with good thoughts, and the young sisters with musical instruments in their hands and joy in their hearts, which will be a sufficient guarantee of pleasure for all who attend. All Patrons will be welcome.

ATTEND AT WATSONVILLE.—We are sorry on account of a meeting of Temescal Grange that we are unable to attend Watsonville Grange to listen to State Lecturer Flint at the meeting opening Saturday, April 20th. Splendid speeches and other rare literary exercises, a good harvest feast and a lively social time generally can certainly be expected. Hope there will be a good turnout from Salinas, Gilroy and Hollister Granges, to say the least. [Give us a report, Bro. Flint.]

THE DEPUTIES' MEETING was held in San Francisco, April 11th, according to the announcement in the Rural Press. About the same number were in attendance as at last year's meeting. A lively and animated discussion was held upon the subjects in our suggested program. As we made quite an extended report, we publish it in the Grange edition. Special meetings of the Executive Committee of the California State Grange were held April 10th and 12th, at which considerable important business was transacted.

ANY subscriber to the Pacific Rural Press who desires to change his subscription to the Grange Edition, which contains all the matter in the ordinary edition and a supplement filled with a large amount of additional matter pertaining to the Patrons of Husbandry, can do so, without additional expense, by sending a request to this office.

POSTPONED.—The Harvest Feast which we had announced for North Butte Grange last Saturday, April 13th, did not take place. It has been indefinitely postponed.

A Useless Currency.

Talk about oppressive and useless taxation, what tax is more ridiculous and absurd than the fee for a postal-note, which converts metallic into a paper currency without adding even the item of safety? The people have asked for fractional currency, and the servants at Washington have denied their reasonable request. Why, nobody knows; for anybody with a grain of common sense ought to see that if people want fractional currency bad enough to pay a premium for it, in the shape of a postal-note, it ought to be supplied to them without the premium. The hired man on your farm is summarily bounced when he refuses to do what you ask him to do. Your member of Congress is your hired man.—Western Plowman.

This tax is especially severe upon farmers. Many are far away from money-order offices, and are obliged to come to the city, no matter how busy the season, or else deprive themselves of some small thing which they sadly need, because there is no way of sending the money for it through the mails. Fractional currency is a great public convenience, and postal-notes are but a slight improvement upon the old plan of mailing postage-stamps, an improvement hardly worth the three-cent tax. But we cannot expect legislation for farmers until we send a few farmers to help frame our laws.

Report of District Lecturer V. W. Still.

MESSRS. EDITORS:—The time for our meeting on the 11th is at hand, and I regret that I will not be able to be there, as I feel that these April meetings are quite important in shaping our work for the season before the meeting of the State Grange. It is gratifying and encouraging to see so much good work being accomplished in the southern part of the State. I spent about 12 days in Nevada county last season, and have not gathered any fruit as yet, but still have hopes that I will harvest something on the same ground this season. I wrote to a Mr. Cassaway, a man that believes in our Order, that if he could get a sufficient number together and let me know in time, I would go up and organize them. He thinks that he will be ready in a short time. I would go up there myself again this spring, but my health will not admit of my doing so.

Magnolia Grange will not be represented, except in this way—that whatever is done at the meeting I will expect is done for the best interest of the Order, and will work in accordance with the action of the meeting to the best of my ability.

We have two candidates ready for the first degree next Saturday. Yours fraternally,

Highland Ranch, April 9. V. W. STILL.

A Good Showing.

The National Secretary reports the following new Granges were organized and equipped during the month of March, a grand total of 48: California, 1; Colorado, 3; Connecticut, 4; Maine, 1; Nebraska, 5; New Hampshire, 1; New Jersey, 1; New York, 8; Oregon, 7; Ohio, 1; Pennsylvania, 10; Rhode Island, 1; Illinois, 4. California did better than this showing, but this is merely a record of complete organization. Probably this is true of other distant States, so that, great as is this list, there is a probability that there were more births. Our Order seems now on the high road to prosperity since we are working, not spasmodically, but regularly.

A Picnic for Tulare.

MESSRS. EDITORS:—Our Grange has decided to hold our annual picnic on Saturday, May 4th. The grounds selected are four miles west of Tulare, at Goldman's Grove. These grounds are good, and the members intend to surpass anything that will be held in Tulare county this season in the shape of picnics. All are invited to attend, and especially our sister Granges. I will let you know more about it as soon as there is a full program made up. Fraternally yours,

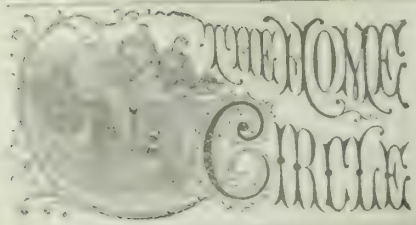
D. O. HARELSON, Sec.

Tulare, April 14, 1889.

A DISTINCTION.—Let all our legal friends understand that there is a vast distinction between a lawyer in office and a lawyer-politician in office. One is generally a man who neglects a large practice to accept office; the other generally has to neglect board and wash-bills until he gets an office. Too many laws have been made by the latter class.—Texas Farmer.

ALL WANT TO COME.—A good Patron writes the Secretary from Washington that "if the National Grange goes to California in November, then Bro. Overhiser and yourself will have your hands full, for all creation and the rest of mankind will want to go and enjoy California's well-known hospitality."

C. W. NORTON has been appointed Deputy for San Joaquin, vice S. S. Sollers.



Be Cheerful.

[Original—LARGE EDITION—By ADA E. TAYLOR.]

Be cheerful and this world will be

The world will do the same;

How quick 'twill turn to care.

If you wear a bright and smiling face,
The world will do the same;
But if you wear a frown, the place
Will all be dreary pain.

'Tis better, far, to make this life
As pleasant as you can,
And trample down all worrying strife
That falls to the lot of man.

By picking up each slender thread
Of sorrow as you go,
The future will be days to dread,
And your life made up of woe.

Life is too short to worry o'er
Each trial that passes by;
Scatter each cloud that looms before
A bright and beaming sky.

'Twill cost you nothing a smile to wear
And pleasant words to speak;
But it will help what you have to bear
And lighten your weary feet.

While on your lips let a happy song
Rest as the day wears through,
And you will find as you go along,
The world will follow too.

But if you persist in grieving o'er
Things that grief cannot mend,
You'll float along and drift ashore,
And alone with trouble contend.

So always wear a pleasant face
And smiles on all impart;
And darkness soon will give its place
To sunshine in the heart.

Margaret of New Orleans.

Her Life-work Among the Orphans—How
She Visited the Sick, Fed the Hungry
and Clothed the Poor.

[Original—By MRS. J. G. LEMMON.]

During a sojourn of several months in the large and curious city of New Orleans, we passed almost daily a small triangular green park, with, in its center, a beautiful marble monument surmounted by a female figure in a sitting posture, her left arm lovingly embracing a little child.

On the front face of the massive pedestal in bas-relief is the single word

MARGARET.

In a low arm-chair sits this plain figure clad in simple garments, a light fleecy shawl over the shoulders, the large head with hair combed smoothly away from the broad forehead, the face, full of character and executiveness, turned slightly to one side, and the eyes directed toward the uplifted face of the child.

Back of the monument, and extending along one side of the little park, stands a large brick building. Over its gate is the inscription:

ORPHAN ASYLUM, 1872.

This is one of the largest and most celebrated charity hospitals in the world, and it was largely the gift of Margaret. There are three other similar buildings distributed favorably throughout the city, and all having a similar origin.

Who was this Margaret, so plainly yet so grandly monumented here? Any citizen of almost any degree will answer you: "The best woman God ever made." Right here where now rises her monument, Margaret began her career in this city caring for some cows belonging to Sisters of Charity. Soon she became possessed of a small dairy and milk-cart, then changed to the proprietress of a bakery, and finally became the possessor of large land holdings with long bank accounts; and all the time she was the most charitable and generous of beings, organizing her charities and drawing to her support the generous impulses of all in the great city.

But meager details are ever given of her early history. Her parents came from Ireland years ago, arriving at Baltimore only to meet with contagion and suddenly die of yellow fever, leaving a little orphan with only the name of Margaret for her fortune. She was taken into the family of a generous Baptist woman who had suffered severe bereavements by the same epidemic. Under

the care of this woman the little waif grew to womanhood. With the sole recommendation of being a good, honest, reliable girl, she appeared in New Orleans in 1836, and obtained a situation as washer-woman in the St. Charles hotel, soon gaining the esteem and confidence of her employers. About this period the Sisters of St. Vincent de Paul began the good work of finding out and caring for the destitute orphans in the city. Margaret learning of this effort, went to the Sisters and modestly offered such services as a poor but zealous washer-woman might give. The sisters readily accepted the services of the stalwart worker, and for many years during the trial, hard work, struggles and numberless difficulties incident upon the changes from place to place before a permanent home could be built, Margaret stood these Sisters in good stead with her strong frame, reliable character, great enthusiasm, courage and common sense, with her devoted charity the guiding sentiment of all.

As soon as she had saved of her washing money enough to buy two cows and a cheap

an industrial education, claimed her efforts—the three being known to-day as Margaret's Asylums.

In the meantime (about 1859) Margaret had changed her business again. She bought a bit of ground that had a bakery upon it, for a trifle, as the owner was embarrassed, and at once reopened the shop, baking bread and pies for her neighbors. Presently large buildings uprose upon the spot and bread-carts were running over the city bearing the legend "Margaret's Bakery." It became the fashion to buy of her, and she prospered beyond precedent.

During war, pestilence or famine, Margaret's carts never missed their rounds, and her delicious rolls kept up their weight and excellence. When the yellow fever raged she sent out her carts laden with food free of cost to the needy. She gave to all alike, of whatever color or creed, and there were days in which she literally fed the city.

It was during the fever panic that Margaret began taking children from death-smitten homes and putting them in homes

with a wheelbarrow and demanded to have it filled to its utmost capacity. Seizing the handles, she trundled the heavy load out of the building. A gallant young clerk ran and offered his assistance. She declined his aid and only paused long enough to make terms for other loads.

Not alone was Margaret engaged in rescuing orphans from want. Every sort and kind of suffering, every phase of want was alleviated, and the dead were given proper burial where poverty or disaster were known.

New Orleans being below the bed of the Mississippi river—that is, the river being carried along between high banks or manufactured levees all through its lower course—the ground but a few inches below the surface is always damp and a hole of two or three feet in depth fills immediately with water.

Hence burials in the ordinary Christian manner are impossible in all that region; the dead are placed in tombs or crypts of masonry above ground. Of course these are expensive, and so families, churches, societies and clubs or guilds of all sorts, unite to build community tombs. "The Stranger's Tomb, given by Margaret," "Little Orphans, by Margaret," "Fever Victims, built by Margaret," are objects that meet the eye in all the cemeteries of the city.

Margaret spent more money in New Orleans for charity than the richest of its citizens, and her discernment of the most needy persons and the best way to relieve them have become models for the charities of the most noted philanthropies in the United States.

For 17 years Margaret thus lived and labored, ever forgetful of self, ever working for others, until the end.

One day—it was the 9th of February, 1882—the morning papers announced with deep borders of black that Margaret was dead. The great city arose and put on mourning; the business houses closed their doors, and all the employments of the people stood still. At the funeral, thousands of her little orphans followed the bier as stricken mourners; every church sent delegations of honor-bearers. School children with other citizens joined in the throng; the houses along the line of the procession were draped, all the bells of the city tolled; civic and military officials begged for positions in the long procession in the rear of the throng of clergymen, and everywhere were expressions of gloom and sorrow. Soon after, the appreciation the city held for Margaret, the gratitude of the citizens, found expression in the establishment of Margaret Place, and monument, to which the stranger is proudly directed to-day.

The Orleans claim, and no doubt correctly, that no other woman of simple mind and uncultivated habits ever achieved so much for humanity, and no one deserved higher honors or has been remembered in a nobler manner than their own strong, faithful, loving, generous Margaret.

Strange, certainly, that an unlettered, uncultivated woman who could neither read nor write, who never wore other than the simplest garments or occupied other than the plainest rooms; one who was busied only in hard, every-day toil and constant, self-sacrificing charities, that this plain, ignorant, working-woman should become the best known, the wisest, the most executive, the most charitable, the best loved and highest honored individual ever known in New Orleans—if ever exceeded in the whole world.

Surely the words of the poet must be true:

"How'er it be, it seems to me
'Tis only noble to be good;
Kind hearts are more than coronets
And simple faith than Norman blood."

Oakland, March 30, 1889.

THE faculty of getting along with people is, perhaps, the most fortunate gift with which nature can endow a man. The whole secret consists in liking people and taking an interest in them. So many men are armed with dislikes, like porcupine quills, which they shoot in all directions, letting them strike where they will. They are like those pivotal guns which we see in the navy, which turn on a swivel and shoot toward every point of the compass. They scrutinize their acquaintances as a proof-reader examines his proof, to see what errors he can discover. Their lives are a perpetual quest for the vices of their neighbors. They never get along with people, for people object to having a perpetual inventory taken of their faults and weaknesses.—Exchange.

MOTHER—Well, did you get that situation as office boy?

Little Son—Nope.

"What was the matter?"

"Don't know. The gent is a lawyer, and he asked me if I was a good whistler, and I told him I was the best whistler on our street, and he said I wouldn't do. Guess he must want a regular professional."



MOTHER MARGARET'S MONUMENT, NEW ORLEANS, LA.

cart and horse, she gave up her situation at the St. Charles and commenced dairying on a small scale.

From this period dates the widespread and strong influence of Margaret.

Emerging from her little cow-yard—near where now stands her monument—seated in the cart with two cans before her filled with pure, clean milk, she drove all over the city, serving her customers and making the acquaintance of the citizens.

Witty, wise, shrewd, disingenuous, bold, loud-voiced, persuasive, magnetic and self-sacrificing, ever talking about and working for the poor orphans, she imbued all classes with her own spirit and soon became the leading solicitor for charitable work. Everybody knew her, and, like the children along the street, called her "Margaret," while they gave of their possessions, money, clothing, food—anything that could be utilized for the orphans' fund was stowed into that cart on the homeward trip.

Soon Margaret was obliged to move her dairy further up town, and here she prospered beyond all expectation, and as her revenues increased, so did her contributions. An Infant Asylum was added to the St. Theresa, and Margaret turned all her daily profits into the building fund of the present St. Vincent de Paul. Then a third asylum, where adult orphans were placed to acquire

where they would be free from contagion and could receive her personal care. The dozens of such rescued children grew to hundreds and thousands, and were gathered into the many asylums.

The War of the Rebellion turned New Orleans into a beleaguered city, then into one under military law and vastly changed relations. Margaret's business suffered depression with the city's trade, but her bakery fires were never quenched and her carts still made their rounds, for the poor and unfortunate were now recruited from other classes than before. But Margaret had made several fortunate business ventures and was looked upon as a thriving, prosperous person whose advice and counsel was sought for in important matters. She was ever humble and plain in her ways, never forgot her obscure origin, yet she ruled in the councils of the city government with her sterling common sense and her large charity—a veritable autocrat, her word never questioned, her intentions never doubted.

Many anecdotes are related of Margaret and her methods. One must suffice in this hasty recital. Once while importuning a large wholesale grocer for alms, he told her that she might have all of certain supplies that she could carry away herself. To this she readily agreed, and soon she reappeared

Chaff.

AT THE TAILOR'S.—Cholly—Ah, Tiedrich, I see you have my trousers ready; I am forever indebted to you. Tiedrich—Forever indebted? Nein, mein freundt, dose drouser don'd go out mit dis store till dot bill was seddled, spot cash, right away aindt it?—Life.

The *Medical Gazette* alleges that the following letter was received by a physician from a man whom he knew, practicing medicine and desiring counsel: "dear Dock I have a pashunt whose spishal sines show that the wind-pipe has ulcerated off and his lungs have drop down into his stumick I have given hym every thin withoutefekt her father is wealthy honable and influenshal a he is member of assembly and god nose I don't want to loos hym what I shall do ains by return male. Yours frat."

A gentleman living near Portland, Me., recently dreamed that in a certain hole, under a stump of a tree, he would find a fur collar which had been stolen from his wife. He visited the field, found the stump, and placing his hand in the hole felt a furry substance, pulled it out, and dropped the skunk on short notice, and has since been fumigating the clothes he wore on the occasion.

He (who has been hanging fire all winter)—Are you fond of puppies, Miss Smith? She (promptly)—What a singular way you have of proposing, Edgardo. Yes, darling. And now the cards are out.—To-day.

"In what condition was the Patriarch Job at the end of his life?" asked a Sunday-school teacher of a quiet-looking boy at the foot of the class.

"Dead," was the calm reply.

THE LONDON "TIMES."

O! red rag to the Irish bull,
Great thunderer,
How came you to be such a dull
Old blunderer?
None but the donkey, daft and droll,
Feeds on thistles,
None other would have swallowed whole
Those epistles!

She—You are sure you love me? He—Love you? Why, I am ready to die for you. She—When we're married will you always get up and start the kitchen fire? He—Er er—pray be reasonable, my dear.

"This, sir, is a combination of two cyclopedias—the Cyclopaedia of General Information and that of—" "Thanks, my good friend, but I don't care for a bicyclopedia."

A child in a public school in a city not many thousand miles from Portland was requested by the teacher to name six animals living in the torrid zone. The child readily responded: "Two flies, three mosquitos and a crocodile."

A Great Mistake.

Yes, I repeat it; it is a great mistake, young ladies, to let men spend so much money upon you in various ways. It cheapens you in exact proportion to what they pay for you.

Very often they can't afford it, and not unfrequently they don't wish to do it, and only yield to custom and what they suppose you expect of them. Girls could often learn a lesson for themselves by noticing what their brothers talk about the expenses of escort duty. As they talk to you, so do your escorts speak of you. It would be a wise and righteous measure if society girls would form leagues among themselves to institute a reform in these things, and bring the wholesome pleasure of social intercourse within the honest reach of men whose salaries are small.

Don't allow men to give you expensive suppers and expensive flowers and the like. And as to more personal things, why, a sense of personal dignity ought to place impassable barriers between you and men who are not bound to you by the closest ties of blood and friendship.

How well I remember the instructions of the best woman I ever knew, whose advice to her daughters was: "Never take presents from men, nor allow them to spend money upon you in gifts. Even when you are engaged, limit your lovers to flowers and books; it is time enough for handsome presents when you are married, and if anything should happen to interfere with your marriage, you will be spared the mortification of having all sorts of things to send back."

The longer I live the sounder this advice becomes. Ah! in those days mothers were so careful in the way they taught their daughters and trained a race of women who were fit to be wives and mothers, and who learned no lesson whose ultimate sequence is the divorce court. *Humboldt Times.*

RICH GOLD-DIGGINGS.—The best place in all the world to dig for gold is in the rich soil of our beautiful valleys. If every acre of our tillable land was properly cultivated, vastly more wealth would be returned annually than the mines of earth yield in gold. Men go crazy for the yellow dust, and lose sight of the fact that where one man gets rich by mining, a thousand grow poorer. The diligent and provident farmer makes more money, makes it with less expense of muscle and brain, lives longer, sees more of happiness and has a home to die in, is surrounded by friends and is not laid away in a gulch. Till the ground and let the rocks alone if you would be prosperous and happy.—*Pasadena Star.*

YOUNG FOLKS' COLUMN.

Almost an Adventure.

[Written for the Rural Press by ADAH F. BATELLE.]

School was over for the day in Palm Grove Seminary, and Gertrude Brower and I left the grounds and set out for a long walk. It was a perfect day and we sauntered along enjoying freedom from lessons for an hour or two. We entered one of the long shaded streets in which the pretty town abounded—such a place as "whispering lovers" are supposed to frequent, but I am sure no lovers ever found so much as we thought of to laugh over.

"I like to think of the time when only Mexicans were here," said Gertrude, "and if you want to imagine yourself there, just go to the old adobe mission."

"Oh, can't we? I wish we could." I was enthusiastic, but Gertrude said: "It's a long way and too far to go this afternoon."

We had left the shaded walk and were warm and tired.

"Let us go in here and rest," said Gertrude, as we were passing a Catholic church. It was a picturesque old building of weather-stained brick, not at all in keeping with the modern cottages across the way.

Probably I looked astonished at Gertrude's proposal, for she said: "Why, don't you know the Catholic custom? Their churches are always open and one is welcome to rest inside. We should blush for our less hospitable sanctuaries."

I assented to the last remark, for I was tired and glad to find a place to sit down. The door opened after one or two turns at the handle and closed again after us with a queer little click. We passed from the cool vestibule into the nave and stood gazing in silent admiration at the beautiful interior. The vaulted ceiling, so far above, made the church seem very, very large.

The silence had a subduing effect, and neither of us spoke. I left Gertrude on a bench near the door and walked slowly toward a large picture. My footsteps echoed, and the echoes died away in that oppressive stillness. I listened, hoping Gertrude would follow me.

Every sound seemed waiting for an answer, and the answer came. I heard something like a quick step in the front of the church. I am not nervous, but it looked to me very like a shrouded figure—the apparition that rose from a seat near the altar.

A second look, and I was amused at the great start I had given. It was only an old woman, kneeling so low that we had not seen her, and our quiet entrance had not disturbed her devotions. It occurred to me that she might be a sister in charge of the church; but when she came to us I saw that she was only a worshiper from the outside world.

It was hard to understand her, or to make her understand us. In answer to her question, we assured her repeatedly that we had but just come in. I was laughing silently at my momentary fright, and, wishing to preserve a sober face, I did not look at Gertrude. "An' if you've just come in, you'll let me out," was what I thought she said, but neither of us understood what she meant by it until we went to the door.

"An' can't you unlock it?" she asked pathetically. We comprehended her meaning. The door was locked. There was no knob on the inside, as there was on the outside—only two fastenings which we tried in vain.

I remembered having heard a noise while we were in the church, as of some one at the door. Gertrude thought I must be mistaken, for we had entered not five minutes before. The question that puzzled the old woman was how we got in. The question that puzzled us was how we were to get out. I can't quote her words, but she made us understand that she had been in there since early morning, and she told us that her breakfast was only a piece of bread, "so big," she added, measuring less than three inches on her bony fingers. It was nearly five o'clock. Our pity for the old woman was deepened by the sense that we were powerless to help her.

While Gertrude and I expressed our sympathy, we worked at the fastenings. The one at the top was moved by a cord, but there seemed no connection with the fastening at the bottom of the door. I left off trying and ran frantically to the side entrances, only to find that there was no possibility of opening either. "The prats will open the door in the morning," said our friend in affliction. "In the morning!" "But what will they think at the school? It is already dinner-time."

My thought was of the preceptress, and of having to explain. "Why not study our lessons for to-morrow? We have our books," proposed Gertrude calmly. Yet she was not resigned to give up, and went back to the door. Neither of us cried, as girls are supposed to under trying circumstances. A smile went round and we felt reconciled to this or anything else that would break the monotony of school life.

I can't speak for Gertrude, but I felt like another girl, quite as if I had stepped into a story and left myself standing on the steps outside. If some one were outside, who could open that door! We went back to the attack, Gertrude pushing and turning the lower fastening, while I pulled the cord.

The old lady stood by, meanwhile, telling us how glad she was not to be in there alone.

Just then Gertrude pressed a tiny spring

that held the fastening on the inside. As the door swung open it threw her over backward on the floor, and pushed me against the old lady. We were ready to laugh when we found ourselves on the sidewalk again, but our chance acquaintance was overflowing with gratitude. "It's all night I'd astayed there," she said again and again.

We said good night at the next corner, but she came back to shake hands and say most fervently, "God bless you, God bless you, an' may we meet in heaven." We were inclined to laugh over our adventure, but her invocation quieted us. "I do believe," said Gertrude thoughtfully, "that we must have been sent to let that poor old woman out, else why did we happen to go this afternoon?" A Catholic church will always remind me of the half hour we spent in one.

A REAL SPANKING.—I was talking seriously with my little girl, while giving her a bath, about some misdeed, says a writer in *Babyhood*, and told her that many mothers would whip a child for it. She suddenly said: "Mamma, what is a good spanking? Bessie (a little playmate) gets them often and I never had one." I told her that it was a severe punishment, and that if she ever received one she would not want another. She surprised me by saying: "Mamma, I am going to be badder and badder until I get one." What was I to do? I knew she meant it, and realizing that she would never fear the penalty which I expected some time to be obliged to impose, I said: "Then perhaps I had better spank you now to keep you good." She saucily said: "All right, mamma, begin." The conditions being very favorable, I took her across my lap and spanked her soundly. At first she seemed to think it fun, but, as I increased the dose, she soon changed her tune, and by the time I sat her up she was thoroughly astonished and well warmed up, and I am sure she will never ask for another spanking, but will have a most wholesome dread of it.

GOOD HEALTH.

Why Teeth Decay.

Microscopic Germs or Bacteria at the Seat of the Trouble.

Decay of the teeth (caries) is exceedingly common, especially so among civilized people. The lack of power to resist this disease may be due to the depression of vital vigor through overtaxing the nervous system or through sedentary habits and luxurious living. In this, as in other matters, there are inherited tendencies, and the children of those whose teeth decay early themselves suffer the same evil.

But what is the immediate cause of dental decay? A paper on the subject was read by Dr. Geo. S. Allen, of New York, before a meeting of the Dental Union, lately held in Boston.

According to this paper the credit of solving the question belongs to Dr. W. D. Miller, an American residing in Berlin, Germany. The solution is found in the germ theory, which has already settled the origin of so many infectious diseases.

The microscopic germs, which are called bacteria, the smallest of organized beings, so small that it takes 100,000 of them placed lengthwise to measure an inch, belong to the plant family. They multiply both by division and by the formation of spores. The spores, which correspond to seeds, have great vitality, and are unaffected by the temperature that would destroy the parent plant. The multiplication by division is exceedingly rapid.

Thus the total eradication of the germs is almost out of the question, and in even a short time, if the pest be neglected, it becomes difficult to limit the harm they can do. That harm may be effected either by the growth of the bacteria at the expense of the cells of the body, or more probably, perhaps, by developing a poison in their waste products.

It must be remembered, however, that many kinds of bacteria are perfectly harmless, while it is possible that some aid in the vital processes of the organism.

The mouth is infested by several forms of innocent bacteria. The saliva is never free from them. Therefore, in order to ascertain if dental caries is due to bacteria, most rigorous tests were necessary. The bacteria must be found in the decayed matter of the teeth; be isolated from every other kind; cultivated outside of the body, and the pure cultivation must produce a similar caries when introduced into a healthy tooth, and this caries must show the same form of bacteria.

Dr. Miller's experiments have conformed to these tests. He found bacteria filling the tubules of the decayed teeth; obtained pure cultures from them, and, placing the latter in tubes with pieces of sound teeth, the microscope in from two to four weeks showed a similar caries, and the tubules distended with similar bacteria.

HOW TO BE A GOOD NURSE.—Six things, says a doctor writing on the subject, are necessary to a good nurse: Strong, equable health; sound nerve; minute observation; a retentive memory; habits of neatness and cleanliness, and a calm, collected mind. A nurse must never disregard her health, because it is essential to her own well-being, and because, too, attendants on the

sick should always be cheerful and hopeful. Sound nerve is often a matter of training, but its root lies in unselfishness. Any one who, in an accident or operation, forgets self in the desire to aid others, will not be troubled by trembling or fainting. The faculties of observation and retentiveness of memory can be developed by having interest in the work strong enough to make the nurse careful and patient in her observations. A calm mind is generally the result of organization. If a nurse has arranged her day's work beforehand, if she keeps everything punctually to this arrangement, and if everything needful is neatly disposed, she is not likely to be discovered in bustle and confusion at any time. The nurse should, furthermore, be mindful that she is under the doctor, and should respect and obey his directions, even if she differs in opinion from him. It is extremely important that those who are sick and suffering should be treated with unflinching gentleness and patience; nothing can ever excuse a nurse for losing her temper with her patient. No duty is too little or trifling for her attention, and no work that is for the good of the patient can be degrading. It is further a good rule never to approach a case fasting, but always have a good meal before going on duty. —*Science Monthly.*

TO FUMIGATE A ROOM.—The simplest way to fumigate a room is to heat an iron shovel very hot, and then pour vinegar upon it, drop by drop. The steam arising from this is a disinfectant. Doors or windows should be opened that it may escape.

DOMESTIC ECONOMY.

BAKED APPLES.—Pare and core and fill the apples with sugar, butter, and candied lemon peel. Brush all over with sweetened water, and sprinkle with bread crumbs browned in hot butter. Bake.

DOUGHNUTS.—One quart of flour, one-half cup of milk, one-half cup of butter, two teaspoons of baking-powder, milk enough to make a stiff dough; roll out, cut in any shape desired, and fry in hot lard.

JELLY CAKE.—One cup of butter, two cups of sugar, one cup of sweet milk, three eggs, four cups of sifted flour and two teaspoons of baking powder. Bake in layers, put tart jelly between them, and ice the top.

MEAT CROQUETTES.—One pound of minced raw beef, one egg, one onion, chopped fine, one bunch of chopped parsley, pepper and salt to taste; mix all together; form into small cakes, dredge with flour and fry in butter.

BAKED SPANISH ONIONS.—Peel four Spanish onions, put them in cold water with a small lump of soda, place on the fire and let them come to the boil, and then simmer them gently for half an hour; drain thoroughly, and put them in a baking-dish with a little butter and bake till brown.

BREAD OMELET.—To a large teacupful of bread crumbs add a teacup of cream or rich milk, a dessertspoonful of butter, salt and pepper to suit taste, also a little nutmeg. When the bread crumbs have absorbed all the cream, add three well beaten eggs and fry in butter.

BAKED BEANS.—Soak one quart of beans in water over night; in the morning put them in an iron kettle with one-half pound of salt pork and water to cover. When tender, but not broken, take out of the liquor with a skimmer, and put in a baking pan with the pork on top and bake until brown.

ORANGE CAKE.—One cup of butter and two cups of sugar beaten to a cream; yolks of four eggs, one cup of milk, $3\frac{1}{2}$ cups of flour, three teaspoons of baking-powder; bake in layers. For the frosting, take the whites of two eggs, juice and grated rind of two oranges; sugar to thicken.

ROLLED JELLY CAKE.—One cup of sugar and two eggs well beaten together; add two tablespoonfuls of water; mix $1\frac{1}{2}$ teaspoonfuls of baking-powder with $1\frac{1}{2}$ cups of flour; add to the eggs and sugar; do not stir much after adding the flour; bake in a dripping-pan in a quick oven; when cool, spread with jelly and roll.

SOFT GINGER CAKE.—Five cupfuls of sifted flour, two cupfuls brown sugar, one of molasses, one of butter, one or two of sour milk or clabber, five eggs, one tablespoonful of ginger, one of allspice, one of cinnamon, one teaspoonful of cloves, one teaspoonful of soda dissolved in syrup.

CREAM CAKES.—One cup of hot water, one-half cup butter; set on the stove; when it boils, add one cup of flour and cook till thick. Set this aside and let it get cold, then add three well-beaten eggs and half a teaspoon of soda. Drop this on a buttered tin, a tablespoonful for each cake, $1\frac{1}{2}$ inches apart. Cream for filling: Scald one cup of milk, add one egg, two dessertspoons cornstarch, and one-half cup of sugar; a small teaspoon vanilla.

EGG SNOW.—Put into a saucepan a pint of milk, adding two dessertspoonfuls of orange water and two ounces of sugar, and let it boil. Take six eggs, separate the yolks from the whites, beat the latter to a froth or snow, and put into the boiling milk by spoonfuls; stir the whole about with a skimmer. When done, take the eggs out and dress them on the dish for serving. Thicken the milk over the fire with the beaten yolks, and pour this over the frothed eggs; let the whole cool before serving it.



A. T. DEWEY.

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Millwork—P. A. Buell & Co., Stockton.
Hols ein Cattle—T. C. Starr, Santa Rosa.
Nursery—J. A. Anderson, Lodi, Cal.
Administrator's Sale of Merino Sheep.
Wholesale—K. B. Wilson, Stockton, Cal.
Measures—P. P. Mast & Co.
Money to Loan—A. Schuller.
Popular Publishing Co., Chicago, Ill.
Bids for Building—Mrs. K. B. Lathrop.
Agricultural Implements—H. C. Shaw, Stockton, Cal.
Jefferson Colony—Vincent, Crittenden & Cole, Fresno.
Flows—T. C. Cabney & Co., Stockton.
Windmills—Pacific M. G. Co.
Stockton Business College.
Grangers' Union, Stockton.
Hardware, etc.—Austin Bros., Stockton.
H. H. H. Liniment—Moore & Sons, Stockton.
Inventors—Pendleton Invention Co.
Pacific Improvement Company.
Agricultural Implements—Byron Jackson.
Pacific Hospital, Stockton.
Beverly & Co., Stockton.
Stockton Milling Co., Stockton.
Holstein Cattle—J. H. White, Lakeville, Cal.

See Advertising Columns.

The Week.

We trust our readers will find acceptable the matters relating to the development and industries of the San Joaquin valley which are presented in this issue. The showing does not pretend to be systematic nor complete. A full account of the many directions in which the valley is advancing and of the points where advancement is being made would fill a volume of large dimensions. Each week the Rural has record of the industries of the State in which the San Joaquin valley has large part. This

week is merely an enlargement upon some interesting local features.

Outdoor affairs are progressing splendidly on the whole. Some fruits are light here and there, and some fields in some places are showing heat and drouth, but the average is high and even the worst may improve. There have been delightful showers well distributed over the State, and mankind on the whole is confident and content.

Ceres and Cereals.

Significant of the leading factor in wealth, production and development in the San Joaquin valley, is the composite engraving upon the first page of this issue of the Rural. Though the fruit interest of this vast territory is large and rapidly extending, it is still to the immensity of the cereal product, taking the valley as a whole, that are due the greater part of the individual thrift and comfort, and the

this display was collected and installed under the auspices of the Grange, and as it was planned and executed by such loyal Grangers as Bro. J. D. Huffman and Sisters Adams and Gunn, it was natural that the Grange goddess should be reared above the special cereal exhibit for which a gold medal was awarded.

Pertinent to the main idea is the bird's-eye view of Stockton, the grain emporium of the San Joaquin valley. The growth of Stockton during the last decade in commerce, in manufacturing and in the appliances of enlightened living has been wonderful. Stockton has a history, a most prosperous present and a future. Our columns this week contain many evidences of the life and progress of the city.

Doom of the Cottony Cushion Scale.

We have had a call from Albert Koebele, who has returned from his mission to Australia in quest of foes of the Ioerya. Mr. Koebele



J. B. GREENE INVENTOR OF THE THRASHERS' COOK-WAGON.

public enterprise in the building of highways, towns and manufacturing establishments. In the devotion to fruit, which commends itself to public attention by the delightful effects of its plantations upon the landscape, and by the high art involved in the preparation of its products, one is apt to forget the plainer farming which deals with cereals. It is to recall attention to the fact that the great grain industry still holds its important place in the fortunes of the commonwealth that we give prominent place to insignia significant of this fact on our opening page.

The central sketch presents Ceres upon a pedestal of the products which are her handiwork. She is not the Ceres of mythology. Even the glorious climate of California does not favor the attire of the ancient goddess. The figure holding place aloft is rather the modern Ceres—the revival of all that was good in the ancient conception of the goddess in a form more in consonance with the conventionalities of this later age. It is the Ceres of the Grange, not the Ceres of the Greek.

The arrangement of cereal products which the engraving shows is the result of photographing a portion of the county exhibit of San Joaquin county at the State Fair of 1888. As

brings grand news from those who have been beset by this worst of all scales. He found it hard to find specimens of Ioerya in Australia because of its destruction by other insects, and the beneficial insect which must be credited with the chief part of the good work is a small beetle of the ladybird family (*coccinellidae*), which in both larval and perfect states eats the scale, and as a larva is especially hungry and persistent, as is common with insects. Mr. Koebele has brought a large supply of these beetles to California, and will distribute them where the Ioerya is found. Some which he sent on some time ago to Los Angeles are multiplying rapidly and are cleaning out the scales before them. The fly larva, which has been frequently mentioned and brought here some time ago, is also a scale-eater, but works slowly as compared with the ladybird, which breeds continually throughout the year and spreads with marvelous rapidity. We shall have further information on this subject at another time.

MORE BEET SUGAR.—In order to carry out his plans regarding the manufacture of beet-sugar on this coast, Claus Spreckels has organized a new company to be known as the Occidental Beet-sugar Company. It was incorporated

ated Tuesday, with a capital stock of \$5,000,000, in 50,000 shares of \$100 each. The directors are: Claus and John D. Spreckels, Louis Sloss, and M. Ehrman. The stated object of the corporation is to erect a large number of beet-sugar factories on the Pacific Coast.

The Thrashers' Cook-Wagon.

An institution peculiarly Californian is the cook-wagon which attends our thrashing crews in pursuit of their vocation. The extent of our grain-fields calls for the location of the thrasher's outfit a mile or more, perhaps, from a human habitation. Traversing such a distance to and from meals was a serious loss of time or else a loss of available force to the thrasher, for the weariness of the tramp in the burning sun but added to the fatigue of the trying labor. Therefore in the interest of the thrasher and his crew, it is a benefit that the meal should come to the men and not the men to the meal. The rest in the shade of the stack at noon recuperated strength instead of further exhausting it in tramping. On the part of the farmer's family, the relief from the killing work of boarding thrashers is too well known and appreciated to be described. The cook-wagon speedily established itself in general favor.

It was the happy thought of J. B. Greene of San Joaquin county which called the cook-wagon into existence, and the one which he constructed in the spring of 1876 was in constant use until last year, and is now on the farm of A. L. Cressey in Stanislaus county. Mr. Greene had been all his life a student of the art of invention, and had made other excellent strokes of inventive genius. He was born in Ohio in 1819, and was in early life thrown upon his own resources. He came to California in 1869, and became a farmer and thrasher. His experience in 1874-5, with his men going to and from meals, turned his thought to an improvement in this respect. He conceived the idea of the cook-house which could be moved from place to place, the owner of the thrashing outfit boarding his own employees instead of quartering them upon the farmer, and to cover the cost he proposed to charge one cent additional a bushel for thrashing. In the spring of 1876, before harvest, he went out among the farmers and discussed the advantages and disadvantages of running a cook-wagon, and he found but two men who would agree to let him do their thrashing and board his own men. Still he was decided that it would be cheaper for the farmers, as well as a benefit to himself and his men, and he drafted plans for the cook-house, and it was built. Its value was speedily recognized and the cook-wagon became a part of every thrasher's outfit. They are all similar to the first one built by Mr. Greene.

Mr. Greene is now a farmer in Oregon, and in good health and prosperous. He has with him six sons, and others of his thirteen children are residents of this State.

Selling Glanders No Misdemeanor.

The trial of P. J. Kelly, in the Superior Court of Alameda, for selling a glandered horse, has brought to light another of the misdeeds of our late lamentable Legislature.

The Penal Code of California, § 400, used to make any person guilty of a misdemeanor who knowingly sells, or offers for sale, or uses, or exposes, or causes or procures to be sold, etc., any horse, mule or other animal having glanders or farcy; and under this statutory provision Kelly was once tried and the jury disagreed, ten standing for conviction.

At the last session of the Legislature a bill was passed amending § 400 to read as follows:

Any person, persons, company or corporation who shall bring, or cause to be brought, or aid in bringing into this State any sheep, hog, horse or cattle of any kind, or any domestic animals of any kind, knowing the same to be affected with any contagious or infectious disease, shall be guilty of misdemeanor.

The apparent intention was to add another subdivision to the section, as formerly existing, but instead of that it seems to have repealed it.

When Kelly's case came up the other day for a second trial, this precious piece of legislative bungling was promptly taken advantage of by his attorney, and the District Attorney declined to prosecute him further.

So it seems that it is no longer against the law to trade in glandered beasts within the boundaries of California.

The Stallion Moses S.

We give on this page a portrait of another of the fine horses of the San Joaquin district, Moses S, the property of L. U. Shippee of Stockton. Moses S stands 15½ hands high, is a beautiful dark bay with black points, and is a four-year-old. His sire is Hawthorne, whose portrait appeared in the Rural of Feb. 23, and as Moses S gains much through his illustrious sire, we reproduce a few lines which we wrote of Hawthorne on the date mentioned:

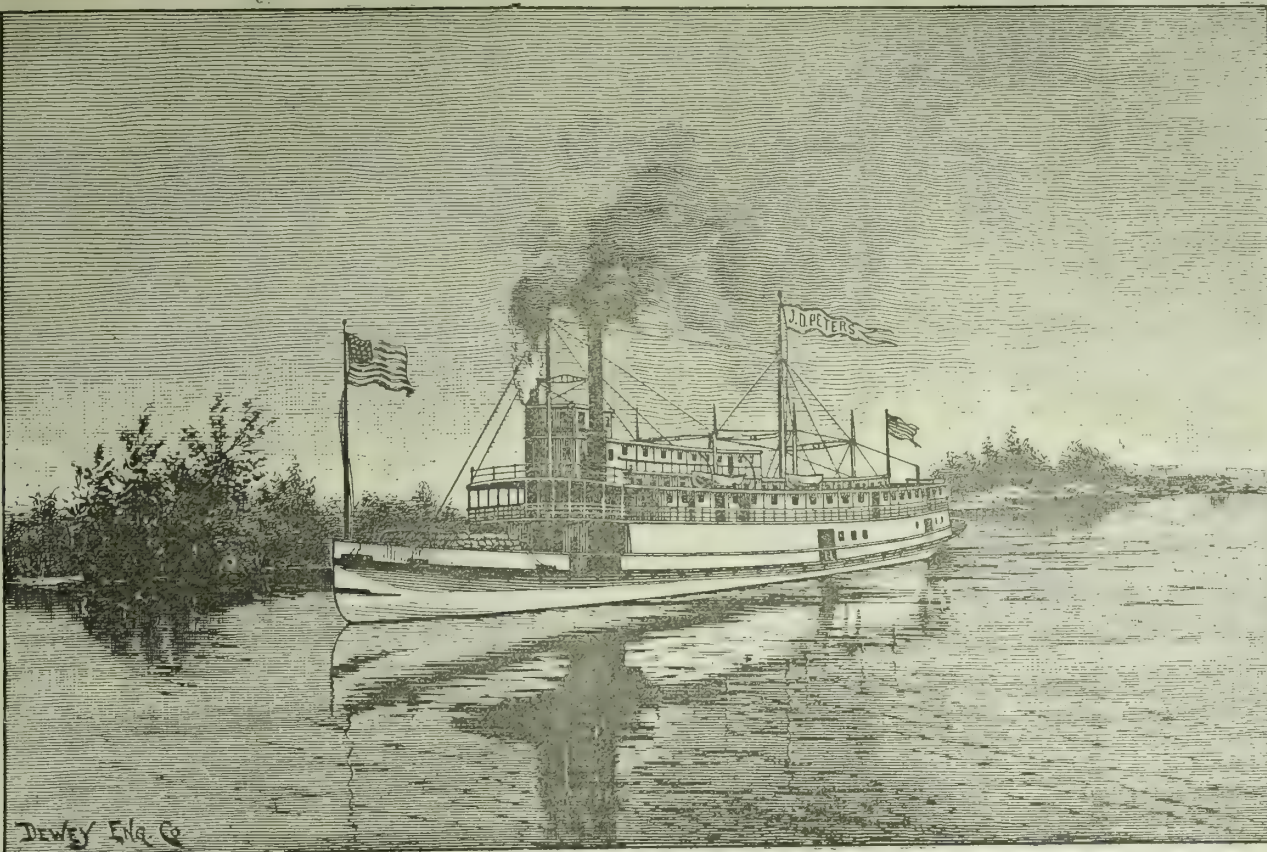
Hawthorne was bred by J. W. Knox and brought to California as a weanling. He is now 11 years old, a dark bay, 15 hands and 3 inches high, and weighing 1260 pounds. He is of splendid form and symmetry and is counted by experts to be one of the best exponents of the true trotting type. Hawthorne is by Nutwood, dam by Goldsmith's Volunteer (sire St. Julian 2:11¼), by Rysdyk's Hambletonian. His granddam was by Rose's Abdallah Chief, he by Abdallah I, by the same sire as Rysdyk's Hambletonian—making three crosses of Hambletonian.

Hawthorne's sire is a brother of Maud S (2:03¾). Hawthorne has proved himself a great sire, and his progeny have brought high figures. He is one of the most famous of the Nutwood stock, as he has three in the 30 list; three below 30, and is the sire of Tempest (2:19) and of at least a half dozen others that will go in this season.

The dam of Moses S is McCracken's Blackhawk, and Moses S has shown his ancestry on both sides by a record of 2:29½ as a two-year-old. He is brother to Tempest, the famous mare also illustrated in the Rural of Feb. 23d,

and to Redthorn, who were recently sold to Mr. Campbell of Kiowa, Kansas, for \$5000 each. Moses S is a favorite of Mr. Shippee, and he is really a fine animal, as his portrait intimates.

Francisco every Monday, Wednesday and Friday at 5 o'clock P. M. A trip to Stockton by water in the summer-time is pleasant, and shows the traveler a very interesting part of the State.



Dewey Eng. Co.

A FINE NEW STEAMER PLYING BETWEEN SAN FRANCISCO AND SAN JOAQUIN RIVER PORTS.

The J. D. Peters

We give herewith a picture of the new boat, the J. D. Peters, the queen of the San Joaquin fleet of steamers. She is owned by the San Joaquin Improvement Co., a corporation of which all the stockholders reside in Stockton, owning six steamers and twelve barges and doing an immense business in moving the rich products of the country adjacent to the San Joaquin river ports. The directors are J. L. Bostwick, T. W. Newell, G. B. Sperry, Sidney Newell, J. D. McDougald, E. R. Hedges and J. D. Peters. The officers are: President, J. D. Peters; Vice-President, J. S. Bostwick; Treasurer, Sidney Newell; Secretary, J. W. Glen; General Manager, H. J. Corcoran.

The Peters is an excellent craft, thoroughly built, well equipped and furnished throughout and a credit to California inland navigation.

The Peters leaves San



H. Boyd

MOSES S.

STANDARD TROTTER STALLION MOSES S., OWNED BY L. U. SHIPPEE OF STOCKTON.

THE SAN JOAQUIN VALLEY

Of the Golden State of California.

The Happy Hunting-Ground of the Indian—
The Dream Land of the Hunter—The
Eden of the Future

[Written for the Rural Press by H. G. K.]

Like the plain of Shinar, in Asia, it is not a valley, it is a vast plain, two hundred miles long and one hundred wide. A river, the San Joaquin (pronounced San Waukeen), from which it takes its name, runs its whole length. Two ranges of mountains, the Sierra Nevada on the east and the Coast Range on the west, form its boundaries, one hundred and fifty miles apart. The Sierras rise to perpetual snow, from ten to sixteen thousand feet high. Mount Whitney, the highest peak in the State, looms up in the south. The Coast Range attains no such colossal grandeur, but clothed in timber and grass to the summits, would be a splendid and towering range were the other away.

The river is a dull and devious stream. It rises in Tulare lake, an inland sea forty miles long and twenty wide, and in a region of low, flat land, swamps, lakes, tule marshes, a level wilderness of sun and mist of a hundred miles square. The river is not navigable for any great length, but capable of being made so from end to end. Nothing now but a dreary drain; here a lively river for a few miles, and there lost in broad sands and sloughful sloughs.

On the north it joins the Sacramento river and the two plains make one. On the south the mountain ranges come together at Tehachapi Pass and close in the valley.

This valley is destined to have a wonderful history. It has had one already. Its past, its present and its future, all alike belong to the romances of this wonderful world.

Its Past

Dates back to the mammoth and the elephant. Their remains are found in abundance in many places. Deer and antelope abounded. The scenery is much varied. From the summits of the mountains to the center of the plain there are great openings with not a tree or shrub in sight—a blank sameness for a day's journey; in other places, oak openings like a park, a summerland of sentiment and delight. There the thick forest, the jungle, and on the mountain-sides the gigantic sequoias in great groves 300 feet high and 30 in diameter.

The climate has no winter, only spring and summer. The sun in his strength glares and burns—something too much in the hot summer noon, but when evening comes, and he dips below the horizon, the cool breezes from the snow-clad mountains fan the sleeper into a peaceful rest, and make a pair of blankets a real comfort. Few and far between are the short nights when these zephyrs do not come, and the sultry night is made hideous by the festive mosquito.

No winter, but cooling rains; a frost is a rarity on the plain, and ice and snow unknown, save on the mountains. On clear days you have the snow in sight and seek an umbrageous tree for shelter from the hot sun. As you ascend the heights you find a cooler atmosphere.

A prevailing condition of this great plain is a peculiar haze that shuts in all objects within a mile or so of where you stand. It is not fog or smoke, but a something soft, genial and peculiar that closes you around and makes only the present visible. It is like a dream, an ever-dissolving view that, as you travel on, closes up the scene behind you and opens up that before. It shuts out all the world but where you are. There is a sense of deep mystery and loneliness in so wide a country in which you can see nothing till you come to it. Still, if you know where you are, it is a most charming sensation. Marry, if you are lost, it is uncommonly bewildering, and it helps you to get lost. It is the easiest thing imaginable to miss your way where all is so much alike and you can see so little of it.

In this rural paradise God had placed the most docile, indolent and shiftless race in all this world. It would be difficult indeed to imagine a human being less active and progressive than the California Indian. Whether God made him to order for the land, or the dreamy, hazy, soft and genial climate molded his character to his surroundings, may be a question, but it was well said by the poet that "With nature means to build a paradise, mines, timber, fish, soil, fruit and game, he had no bread, no home, no shoes or coat, remaining through the centuries just the same." He made no mark upon the earth to be remembered by, not a stone, not a brick laid upon another, not a road or dam or ditch, not a vestige of his prowess remains to tell that he was ever there. He has not made a mark that a few seasons of sun, rain and fire will not efface.

He had no history, no Government worthy of the name. A few chiefs and a few miserable traditions that took the force of law was all that could be found among them. They had no traditions of a great man, a large war, or of any combination of tribes or territory. The

climate was so kind and genial, and their dispositions so peaceful, that single families lived where they would, and knew no control but the head of the family.

How long this Indian dream of rural peace had subsisted, or might have continued, but for the white man, it is impossible to conjecture; but it was destined to an abrupt end. Within a hundred years he came, he saw, he conquered. The Indian is a thing of the past. His happy hunting-ground has become a field of enterprise to the bold Caucasian. He has entered into possession, once for all, and the Indian has melted into thin air.

The Spanish monks who were the first to invade this elysium never entered the great valley of the San Joaquin. They crept along the sea-coast, from San Diego as far as Santa Rosa, north of the bay of San Francisco. Their nearest stations were all on the other side of the Coast Range. In the great valley not a Mission shrine was raised, and the Indians remained in their primitive ignorance and simplicity till the days of '49, when the Americans came down across the Sierras and by way of the sea.

Yet in an early day some traces of the Spanish Mission work were found. It seems that some of the monks, moved thereto by the glorious climate of California, the rich beef and mutton of the Mission herds, and the dusky maidens of the chaparral, abandoned the regular Mission-houses and fled into the interior. They erected no crosses, said no masses, insisted on no rules of faith or practice; but they did leave behind them sons and daughters, with a faint smattering of the Spanish tongue and Castilian features not to be mistaken. But it was manifest that the Indians had captured the monks, and not the monks the Indians. When they went to the bush, they doffed the sacred robes and all that went with them. Not a trace of either could be found among their descendants. They were fugitives, and little disposed to display the evidences of their origin; but some native California families may be traced to this source.

The Present.

At the close of the war with Mexico, the whole civilized world was enjoying a most profound peace. Suddenly there came a report of gold—gold found in far-off California.

The disbanded army of the United States in Mexico, free from business and with money in their pockets, rushed to the gold-fields. And not they alone, but every land within the compass of news and commerce responded to the call. At least 100,000 "Argonauts" came here in search of the "golden fleece," to return to home, kindred and friends in a few years. Alas! the "unreturning brave" of a grand army did never more signally fail to reach the paternal fireside.

They spread over the land like destroying angels. Where there was gold they fixed their tents, and commerce swiftly followed in their train. Villages, towns and cities appeared like magic. The gold made all things possible, and they came as if produced by the magician's wand. All the appliances of civilization, and civil vices, too, appeared within two years—the judge, the minister, the schoolmaster and the theater, and the other side, the gambler, the desperado and the cheat. The cities of all the civilized world sent their best and their worst, all the loose and restless spirits, in search of gold, to find a wild career and a silent grave.

In the great valley of the San Joaquin there was no gold to speak of, a color here and there, and nothing more. Ye honest miner of those days entered this paradise with its soft curtain of haze, its warm sun and genial atmosphere, only to be lost in space, sometimes for months, and return a disappointed man. In his rage and despair and hunger, he wrecked all he could lay his hands on, of necessity. No man dies of hunger while food is within his reach. The few Spaniards who had flocks or herds, fields or gardens, found themselves utterly despoiled, and joined the grand army of their despoilers for the fields of gold.

But these wanderers in this land of green pastures and still waters carried back news of what they had seen: Endless meadows, knee deep in clover, wild oats and nutritious grasses, a sleepy region, where pastoral life might find a paradise of ease and plenty in every corner, and a new life sprung up in the San Joaquin. Cattle and sheep were driven there to revel in such a region as man never knew before; no want, no winter, no storm, where nature is as gentle as the lamb, and as generous as the loving mother of the great herd.

To go there with a few sheep or cattle was to find miles of land clad in the richest and most nutritious feed. To herd and sell was all there was to do. The increase was immense; the loss, nothing. The market, to the gold-fields of the North, or the cities of San Francisco, Sacramento, etc., was the best in the world, and the way there was equally open, rich and free.

Then the Lots and Abrahams of those days soon counted their herds by the tens of thousands. They met each other and agreed on lines, just as those patriarchs did. Let this line, north and south, or east and west, be the line between me and thee forever. And it was so, and the lines were wide apart. These claims would cover a good day's ride. Acres were counted by the thousand, and from 30 to 100,000 was but a modest portion. You could ride 60 miles in the green pastures of one man. Such was the pastoral age of the San Joaquin.

It ran from 1855 to 1875. Few houses or

families, white men as owners, and Indians or Mexicans for herders. The flocks ate out the range, and came to be too numerous for their full support. In the spring all reveled in a rich abundance. But when the sun came, in June and July, the grass died, dried up and blew away. The ground for miles would present the appearance of a desert, on which nothing could live. The cattle lay down and died by thousands. Nature, overtaken, refused her boon. The earth had been nipped too bare, the roots had no protection, the sun burnt them up, and for one-half the year all these fair meadows became a desert. Taking all, and giving nothing, had done its work here, as everywhere that it is practiced.

In 1870, the whole region of 20,000 square miles had not as many people. The cattle stations were 20 miles apart. The stage could not find stations, but had to build them. Visalia was the only town of the slightest importance, and even its environs were a *terra incognita*, save to a few herdsmen. The great Tulare lake, the feature of the country, was unexplored, an unknown sea.

Exploration of the San Joaquin.

About 1870, a small party left San Francisco to explore this delightful region, and found primitive glades and forests, and in this lake, islands, never trod by white man before, curious, instructive, and to the last degree most interesting to the historian and the naturalist.

We left San Francisco in a small steamer, reached the mouth of the San Joaquin, and proceeded on our winding way to the south for over 100 miles. Occasionally the haze would lift, and we could see the distant mountain ranges, but for the most part it was a groping in a fog that refused to our gaze all but the immediate landscape.

Having reached the limit of steamer navigation, we took to the boats to finish our journey. Never were voyagers more perplexed. We went on every point of the compass. It was often difficult to discern whether the current was up or down. Where King's river comes across the main channel directly from the east, there was a confusion of cross-currents, still water and devious ways, that in that mist almost drove us to despair. But in the end we reached the open lake, and were soon lost to all the world in sea and sky.

On Tulare Lake.

The water was warm and for the most part shallow, and not fit for even cooking purposes. Fish abounded. The lake seemed to be paved with clams; but oh, how nauseous to the taste! We took up sand from the bottom to examine with the microscope. It was nine-tenths powdered clam-shell. The clams were manifestly old settlers, and had given character even to the mud of the lake.

Water birds floated all round us. Then pelican, ducks, geese, swans, gulls, cranes, all the hosts of sea fowl were there, curious to see us, alarmed, but evidently not much afraid. In the phantasma of the lake, they were sometimes so magnified as to appear like gallant ships on the great sea.

Islands? Yes, we landed on several, where white man had perhaps never before set foot. Indians had been there, on more than one; but on one, at least, it would seem that even they were strangers. Two of these islands deserve attention from what we found there. We will call them One and Two for distinction.

Island One might contain 20 acres; above the water-line not over ten feet. Some open grass, some brush, but not a semblance of a tree; some Indian huts, but very old; not a squirrel or mouse or anything that could not fly or swim; in an open spot about 20 human skulls in a circle of some 12 feet in diameter. They lay on the ground, partly buried by the sand, drifted by the wind. In the center was one more delicate, very white, small and feminine from its shape. This our savant judged to be the skull of a white female, as some of the teeth were gone. The rest were judged to be Indian males of mature years—hard, thick, ill shaped, and having all the teeth perfect. But no Indian could be found with the least tradition of how they came there.

Island Two was somewhat smaller and had no more elevation. It was less even in its surface. A few stunted trees rose to the height of 20 feet, umbrageous and wide-spread, but here the sea-fowl had made their nests for ages. The ground was literally covered with them. Some of the nests had been renewed and rebuilt till they were three feet high, and every inch of soil was covered with the bones, feathers and debris of birds. The air above was thick with them, screaming and floating round in evident alarm. Here also we found a human skull, large, of coarse fiber and masculine—Indian to all appearance, but that of a powerful man.

The whole lake is studded with these islands, sometimes of mere tule rushes that in the mist have a most weird aspect. A storm can be dangerous on this lake, but calm, hazy, bewildered dreaminess is the prevailing condition. When you seek the shore it is difficult to find a dry landing-place. The water shoals gradually to one foot, one inch, mud, marsh and grass land, and we had to wade two miles to reach dry ground.

The New Era.

But the reign of the cattle-king is over in this pleasant region. It has been found that the land he has grazed into desolation will yield good crops to easy culture, and the family, the women and the children, will in the near future occupy this fairyland by millions.

There is the soil and the sun. Water alone is wanting to make it one of the pleasant lands of the world. It has just entered upon the transition. All the necessary facts have been proven.

It will produce small grain anywhere in an ordinary season with as little and as pleasant labor as anywhere.

In its moist grounds all the grasses, clover, alfalfa and all green crops are possible. On its driest lands, with water, it will yield fruits and vegetables in profusion.

The vine is at home here, and with a little water all the raisins and wine you desire are possible. Here are 20,000 square miles, every 10 acres of which, with water, will maintain a family—homes for 5,000,000 in all.

And the water is there. In the mountains it is abundant. The snow melts in the right season. The little hills make possible reservoirs. Only the skill and the outlay are wanted to bring the water to the soil and make a paradise for a nation.

And the great San Joaquin valley has entered upon its magnificent future. It has discarded the Indian. It has gone beyond the monkish mission. It has exploded the cattle-king who took and gave not. It has entered upon a new era of science, skill, culture, industry and happiness. Henceforth all its great resources are to be called forth and the misty, dreamy summerland be the abode of millions of happy human beings.

The Future in Irrigation.

Our Government has appointed a commission to examine the whole land and discern where nature has provided storehouses for the water necessary to make her deserts blossom as the rose. In the San Joaquin valley one of those favored regions will be found. Science will do the rest. It is scarcely possible to think of all that may be achieved there within the next generation. But this is certain:

The mountains on either side of the valley afford water enough to cover every acre of soil one foot deep every season. That water is enough to secure the most abundant crops of all descriptions.

There must be reservoirs in the mountains for its storage, and these will be easily constructed, for the reason that the natural basins already exist, and require only efficient dams to make them available.

Canals will be constructed on either side of the valley, of large dimensions, which will at once drain the swamps above them, irrigate the lands below, and serve as a means of transportation for the products of the field and orchard, the cheapest in the world.

Transportation and Reclamation.

The lake and river are capable of immense improvement. To straighten and deepen the river would drain 100 square miles of the lake and thousands of adjacent acres. That also could be made a means of transportation, as also of reclamation of river lands, promotion of health and the making of beautiful sites for homes on the well-defined banks. This great river would then indeed be "a thing of beauty and a joy forever."

Or, if this be not practical, then a canal from the lake to Antioch, near the mouth of the river, would be the next best. It should reduce the lake to one-half, and maintain a constant water level about the same thing all the year.

These improvements will have a double action on the water level and the water question in general. At present, the farmer lives under a degree of uncertainty that is painful at all times, and often damaging besides. He cultivates land that is either too high to be moist enough, so low as to be liable to floods, or just between, and liable to either. The seasons in California are not very nicely adjusted. Now there is no rain for six months, and his dry land is worthless. Then there is a deluge for three months, and his levels are all under water. A foot more or less in elevation makes all the difference between crop and no crop.

With the irrigation works in full operation, all this will be changed. The water that makes floods will be stored in the reservoirs, and his lowland saved from inundation. And the stored water will be let loose when wanted and reach his dry soil, that otherwise would be non-productive. Irrigation is a two-edged sword that makes all secure by adding a foot or two to the line of safety on both sides.

Thus, Tulare lake is said to have a margin of ten feet between wet and dry seasons. The lone settler dare not touch the land within that margin. If the lake should rise on him, the waves would roll over farm and fence, crop and stock, and leave not a wreck behind. But when he can say, ah, the lake is chained down! the drain canal and the storage of water in the mountains say thus far and no farther, he can plow to the line with confidence and reap his harvest with assured success.

A Field for Regulated Corporations.

But individual effort can never reach these results. There must be science, capital and combination, and works on a large scale. The Nation, the State, or corporations must step in to lay the foundations of plenty and security, and then the individual do his part under the improved conditions.

Corporations are the correct, and perhaps the most efficient workers. They should be carefully franchised to prevent monopoly and abuse, and yet permitted to make ample profits to encourage a generous outlay, little more, and surely no less.

(Concluded on page 382.)

625-631 Sixth Street,
SAN FRANCISCO.

BYRON

JACKSON

149-169 Bluxome St.
SAN FRANCISCO.

Jackson's Improved "Eclipse" Hay Stacker and Loader. Mounted on Wheels.
Weight, 1500 lbs. Price, \$100. Rakes are \$50 each.

This is my standard stacker, and is, I think, an improvement on all others, as it is lighter, stronger, and dumps the hay at any desired height, instead of carrying it all up over itself, without regard to height of stack. This latter point is quite important in stacking in windy weather, as with the "ECLIPSE" the hay is only raised as high as necessary to dump it on the stack, and is not scattered by the wind. The uprights of the "ECLIPSE" are made 28 feet high, as this is as long as they can be shipped, and with them it will stack nearly or quite that height, but the height it may be made to stack is really unlimited, as these uprights may be spliced out as high as desired, and guyed with rope.

I make this machine under the "Acme" and Oliver patents. It is mounted on iron wheels, and will build a stack 25 feet high.

With the rakes the hay is taken from the swath, when cured, just as left by the mower, or from the cock or windrow, if it is desired to rake it before it is cured sufficiently to stack; and when the Rake is loaded it is driven to the Stacker, the rake-teeth entering between the pitcher-teeth; the hay is pressed forward against the pitcher-head, the horses then back the Rake off, leaving the hay in a compact mass upon the pitcher, and return to the field for another load. As soon as the Rake is out of the way, the horse attached to the pitcher rope is started, elevating the load the desired height, when the latch-rope is pulled, and the hay is dropped in the center of the stack, the horse is backed up, the pitcher being brought back to the ground by its own weight, ready for another load.

The "ECLIPSE" has special advantages for stacking in windy weather, and for loading hay, etc., on wagons. It DUMPS THE LOAD AT ANY DESIRED HEIGHT, from 5 to 25 feet, while it is easily moved, quickly set, and amply strong.

"Eclipse" Hay Stackers,
"Acme" Hay Rakes and Bucks,
IRRIGATING and HARVESTING MACHINERY,
ENGINES, BOILERS, PUMPS.

WRITE
FOR
CATALOGUE.



Jackson's Improved "Acme" Rake and Buck Combined.
Weight, 650 lbs. Price, \$50.

The above illustrates my latest-improved Rake. In it are embodied all the improvements that my long experience with them in the field has suggested. They are first-class in design and construction.

They are mounted on 34-inch patent iron wheels, with 4-inch tires, and have the improved patent ratchet device, which enables the driver to EASILY RAISE the HEAVIEST LOAD without leaving the very comfortable spring seat in which he rides. The swing fence automatically discharges the load when the team backs.

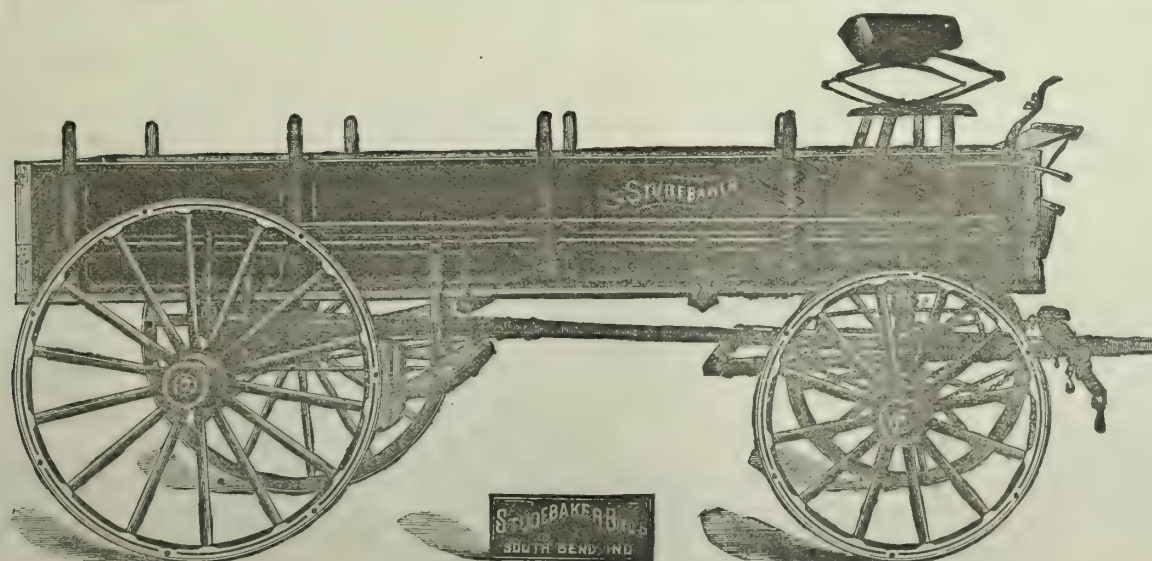
It does the work of all other Hay or Horse Rakes, viz., wire rakes, sulky rakes, revolving rakes, buck rakes and "go-devils." It rakes from the swath, and leaves the hay in large bunches at once, requiring no hand-work. One man and two horses will keep up with two mowers, following the mower as soon as the hay is wilted enough to be raked clean with any rake. It rakes CLEANER. The hay will cure quicker without bleaching by dew or sun. Very large bunches can be made by pushing two or more rakefuls into one.

If raked and bunched by my Improved "Acme" Rake, the hay is in very much better shape to reload and deliver on the Stacker evenly and level (loading the rakes all they will carry to the stack), and spreads well over the stack, saving labor in stacking, because it has not been tangled, as it is when gathered with the sulky or revolving rake. It also saves waste of leaves and seeds, and gathers the hay clean of trash, such as old stubble, stalks and lumps of dirt. Bear in mind that windrowing hay with any rake is labor thrown away, and is detrimental to the neat and most economical working of the "Acme" Hay Harvesting Machinery.

STUDEBAKER BROS. M'F'G. CO.

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Carriages, Buggies, Carts,



WAGONS.

Nos. 201 and 203 MARKET STREET,

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E. E. AMES, Manager.

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AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

FRENCH MERINOS TO BE SOLD.—Oakland *Tribune*, April 10: The only business that came before Judge Gibson this morning was the making of an order to sell at public or private sale the personal property of the estate of the late James Roberts of Irvington, of which James Stanley is administrator. One of the largest items of the property is a mob of high-bred sheep numbering 539, and having an appraised valuation of \$9195. The herd is one of the most famous of French merinos in the country, and ranks among the very best. There are 79 rams, 280 ewes and 180 lambs, and some of the rams of this flock have fetched as high as \$500. It was originally imported from France by Patterson of Syracuse, N. Y., who sold it to Robert Blacow of Centerville. James Roberts was Blacow's foreman, and succeeded to the flock, which will now be disposed of. The sale will be of great interest to owners of sheep runs, since the blood of the flock has been kept strictly pure.

Amador.

PAVILION SITE CHOSEN.—*Ione Echo*: The committee appointed by the Board of Directors of the 26th District Agricultural Association, to select a pavilion site, took a look at the several available places in town Tuesday, and decided upon the Waltenspiel place, on the northeast corner of Marlett and Buena Vista streets. The lot is 200x100 feet in size and the price \$1200.

Fresno.

FARMING ON HOG-WALLOW.—*Fresno Examiner*, April 10: About five years ago Frank Locan began making improvements on some land owned by him, about eight miles east of Fresno. The land—four sections in extent—was what is known as hog-wallow, and considered by old-timers of little value. But Mr. Locan went to work and leveled, plowed and planted, until to-day he possesses a handsome and well-improved estate. The first two years he suffered many reverses. The ditches were continually breaking and flooding parts of the land, the army worm came along and greatly damaged his first planting, and the next year the grasshoppers nibbled up a lot more, but he kept on, and now has in over 200 acres of vineyard, about 50 acres of orchard, a large field of alfalfa and about 200 orange trees, of which some 25, that he planted four years ago, are bearing excellent fruit. In addition he has in 1600 acres of fine-looking grain. Some two years ago Mr. Locan became interested in ramie culture, and set out a number of plants in nursery. These plants have thrived, and to-day he has fully 1,000,000 plants.

LARGE OLIVE ORCHARD.—Geo. Roeding, superintendent of the Fancher creek nursery, is now engaged in planting out a 60 acre olive orchard from the choicest imported varieties. There are already a number of fine olive trees in bearing at the Fancher Creek nursery, and the success which has attended their growth warrants the prediction that the new orchard will soon become valuable.

Humboldt.

HOOPA INDIANS' CROP.—Capt. W. E. Dougherty, acting Indian Agent at Hoopa, has written to the Aroata Union: "Give the Indian devil his due. The surplus product here is no myth. There is now on hand about \$2000 worth of flour and feed that is a drug on our hands, there being no market for it. Individual Indians have at least \$800 worth more, and more than \$1000 worth has been sold by individuals and the agency. I have 70,000 lbs. of flour that I would be glad to sell to any one at \$2 per cwt.; and the Indians have about 40,000 lbs. I know one man here who sold \$200 worth of oats, and I am informed that several sold from \$50 to \$100 worth. This is the surplus this year, which will be more than doubled next year, but what we will do with it I do not know."

San Bernardino.

MYRIADS MORE OF ORANGE TREES.—*Rialto Orange-Grower*: Another carload of orange trees was received here last Tuesday to be put out on the lands adjoining town. This makes three carloads, containing between 30,000 and 40,000 trees, which have arrived within the past week, and several carloads more are to come. . . . A car containing 13,000 young Riverside Washington Navel orange trees for the "Kansas Colony" was unloaded here on Friday last. The trees are budded on sour stock, and are large, thrifty and in fine condition. This is the first carload of an order of 31,000 trees furnished by Messrs. Frost & Burgess to be put out on the lands just west of town. . . . We are informed by Mr. Burgess that their sales to date are more than 80,000 trees.

San Diego.

WATERING THE MESA.—*San Diego Sun*, April 13: Yesterday afternoon the first load of farm produce of mesa production ever marketed in San Diego was brought into the city by J. E. Sales, who has under cultivation a 10-acre tract about eight miles from the city. Mr. Sales secured flume water with which to irrigate the ten acres and began work in earnest early in December. After three months' cultivation, and after enjoying the fruits of his labor by serving various kinds of products upon his own table, Mr. Sales yesterday brought to the city a quantity of potatoes, peas and other products,

all of which he disposed of without trouble. The mesa land is high, and things planted in December grow as rapidly as if planted in the valley three months later.

Sonoma.

CARP SUPERABUNDANT.—*Index-Tribune*: Sonoma creek is swarming with carp. Twenty years ago these fish were unknown in our waters, having been imported from Germany by the late J. A. Poppe of this place. They have increased with amazing rapidity of late years. They are voracious, and woe betide the smaller fishes that happen within their reach. It is feared that this fish will eventually destroy the trout in our streams, as trout eggs are frequently found in its capacious maw.

Santa Barbara.

HORTICULTURAL SOCIETY.—*Press*, April 13: At the annual meeting of the Santa Barbara County Horticultural Society held April 3d, the following were elected directors for the ensuing year: H. C. Ford, Mrs. M. A. Ashley, Joseph Sexton, O. N. Cadwell, Edward Harper, C. M. Opdyke and A. A. Boyce. At a subsequent meeting of the directors, the following officers were chosen: H. C. Ford, Pres.; O. N. Cadwell, V. P.; A. A. Boyce, Sec.; C. M. Opdyke, Treas. Edward Harper, Mrs. M. A. Ashley and Joseph Sexton were appointed a Building Committee. It was resolved to hold the Spring Exhibition about May 1st, the directors acting as a Committee of Arrangements.

Sutter.

FRUITS FOR CANNING.—*Yuba City Farmer*, April 5: The stockholders of the Sutter cannery had a very successful meeting on Monday last. O. W. Pike, who has for the past two years placed the product of the cannery in Eastern markets, being called on, made very interesting statements in regard to Sutter county fruits, and spoke of their popularity with Eastern purchasers. Mr. Pike said no better peaches and apricots grew anywhere than in this county, and the localities are rare indeed that produce their equal. He said none but the best fruit should be canned, and while we grew it to perfection, we also grew a medium quality; and while the former has scarcely a competitor, the world is full of the latter, which renders its production unprofitable, except in fruit famine. To the question how the per cent could be raised, he said by proper pruning and thinning of the growing fruit. The latter course, he said, was absolutely necessary, and he contended that the yield, quality and value were enhanced by the process. The question of pruning and thinning was then discussed by R. C. Kells, G. F. Starr, J. P. Onstott, J. C. Gray and others, and all agreed that "heroic" thinning was essential to size, quality and value as any question connected with fruit-growing. Mr. Pike was asked his experience and judgment with irrigated fruit, to which he unhesitatingly replied that unirrigated fruit was much preferable to irrigated; that so far as size was concerned, it filled the requirements, but it was soft and stringy as it came from the can, lacked the rich flavor of unirrigated fruit, and hence is not so salable. The address of Mr. Pike could not fail to impress itself on the minds of the farmers and fruit-growers present, as it did on us.

Tehama.

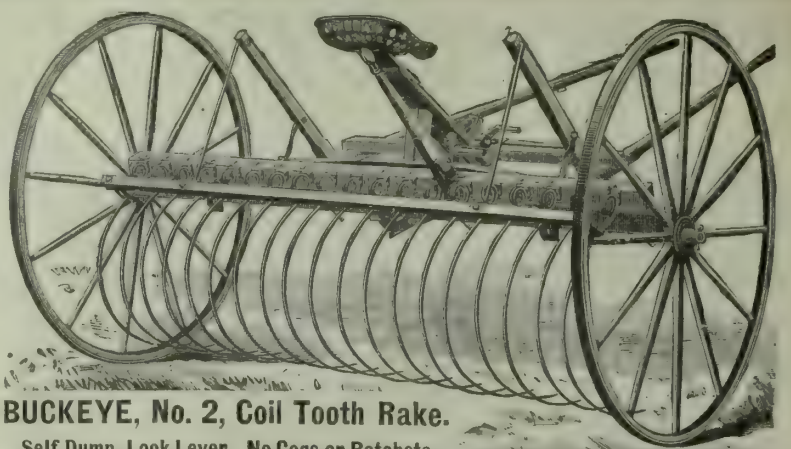
SPRING WOOL CLIP.—*Red Bluff Sentinel*, April 13: Major E. H. Ward went to Tehama to-day and from there will go to the Lone Pine sheep camp, to begin shearing 15,000 head of sheep. He informs us that this spring's clip will be the finest ever sold in Tehama county, both in length of staple and freedom from dirt. This is due to the fact that we have had an unusually mild winter and an abundance of grass. Sheep are in fine condition, and the outlook was never better. As to prices, Mr. Ward thinks they will range from 18 to 20 cents. Next to Humboldt wool, that of Tehama county commands the best figures in the State.

Yuba.

DISTRICT FAIR MATTERS.—*Marysville Appeal*, April 12: The directors of the 13th Agricultural District held their annual meeting Saturday and elected the following officers: John H. Kimball, president; C. A. Glidden, V. P.; A. C. Bingham, Treas.; T. J. Sherwood, Sec. D. E. Knight was asked to accept the presidency, but positively declined. Letters were read showing that the people of Woodland were anxious to have the fair held there and would raise \$2500 by subscription, in addition to the State appropriation of \$2500, if it was given to them. The date for holding the fair was fixed to commence September 3d and continue five days, either in this city or in Woodland, the preference to be given to this place if the business men and others will subscribe \$2000. To learn how much each business man will give, the following committee was appointed to make a thorough canvass and report on the 17th inst.: J. H. Kimball, James Littlejohn, A. D. Cutts and T. J. Sherwood.

OREGON.

BLACKCAP RASPBERRIES.—*Grant's Pass Courier*, April 11: Dr. Spence of Kerbyville is busy putting out Blackcap raspberry shoots, principally the Gregg, although quite a stock of Earheart Ever-bearing will receive attention. The Gregg is especially adapted to the soil and climate of this county and also for evaporation, for which the doctor is well prepared. They grow prolifically, he having taken as high as 60 sprouts from one plant, and the berry is large and delicious. Three and a half pounds of the



BUCKEYE, No. 2, Coil Tooth Rake.

Self-Dump, Lock Lever. No Cogs or Ratchets.

The A1, A3, A4, and Jumbo Rakes have 20, 28 and 30 drop teeth.

The A2 and A5 have 20 and 30 Coil teeth.

Wood or Steel Wheel.

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P. P. MAST & CO.

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green fruit makes one pound of the dried, which is away ahead of the Doolittle and other varieties, which require seven pounds of the green to one of the dried. The Earheart has not made its record in this county; but if any one can succeed the genial doctor can, as he is one of the most scientific ranchers. If this variety does well, it will prove a valuable berry for both table use and evaporation, producing fruit from early spring till late in the fall. Dr. Spence has been in the country 11 years, all of which time he has resided on his present home-place, clearing 40 acres of his 160 of very heavy timber, planting the orchard, alfalfa and clover, grading the farm stock—cattle and hogs—and last giving place to the very best raspberries grown, besides other small fruit.

AT THE AGRICULTURAL COLLEGE.—*Oregonian*, April 12: State Senator Thos. E. Cauthorn of Corvallis, chairman of the Executive Committee of the State Agricultural College, says: There are now about 100 first-class students registered at the college. Their labor is utilized as much as possible, and the college is practical as well as theoretical in all its departments. Let me illustrate. Recently the professor of engineering, Prof. Letcher, took out his class and surveyed and platted all the land in the vicinity of the college, so that when the board met we had an excellent map, made by the professor and his students, before us. The interest in agriculture is growing. At the recent meeting of the Board of Regents, every member, and there are 13, was present. All show a live interest in the welfare of the college. Prof. Lake, formerly of the Michigan Agricultural College, is preparing to wage a war of extermination against the codlin moth. He is now engaged in making tests to determine the most economical and, at the same time, most effective poison, and to find out the proper time and manner of application. On the farm there is an orchard of 75 trees, bearing apples, not one of which escaped the moth last year. Prof. Lake has sprayed many of these trees and saved them, while the others will be saved for pruning for illustrative purposes. Prof. Grimm is actively engaged with experimental plots of various grains and grasses, to test their adaptation to our soil and climate. The last Legislature appropriated \$37,500 to aid the college in various ways. While in Salem the other day I drew \$15,000 to pay for our recent purchase of 149 acres adjoining the college farm. About the middle of this month the Executive Committee will meet to consider plans for the proposed dormitory and the building for the mechanical department, on which we will spend \$10,000.

Commercial Hotel.

The Commercial hotel is the great rendezvous of the city of Stockton. It is under the management of A. & J. Hahn, brother and sister, who have endeared themselves to the public by providing first class accommodations at very moderate prices. It goes without saying that the rooms, furnishing and culinary departments are equal to, if not better, at the prices charged—\$1.25 and \$2 per day—than these of any hotel on the Pacific Coast. Its many attractions, cuisine and homelike character are such that families and overworked city people have chosen this place as a temporary country residence. Miss Julia Hahn and her brother, Mr. Adolph Hahn, have the highest esteem in the community in which they have lived so long and so successfully conducted this attractive caravansary.

THE FIRST CHERRIES.—Solano and Placer counties' annual race results in Vacaville shipping ten pounds of cherries last Saturday, while Newcastle received "the first cherries of the season" Sunday morning.

Sewing Machines.

Without a Peer!
THE POPULAR

NEW HOME

LIGHT-RUNNING

SEWING MACHINE.

No. 725 Market St., History Building S. F.

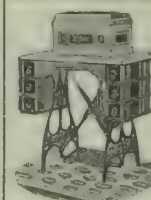
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Before Buying a Sewing Machine.

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Simple in Construction. Light Running. Most Durable and Complete. Visitors always welcome.

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DR. RICORD'S RESTORATIVE PILLS, a specific for exhausted vitality, physical debility, wasted forces, nervous derangements, constitutional weakness, etc., approved by the Academy of Medicine, Paris, and the medical celebrities of the world. Agents, J. G. STEELE & CO., 635 Market Street Palace Hotel, San Francisco, Cal.

Sent by mail or express anywhere. Box of 50, \$1.25; of 100, \$2.00; of 200, \$3.50; of 400, \$6.00; preparatory pills, \$2.00.

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STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS

THE MILLER LIGHTNING HAY PRESS.

AWARDED

First Premiums at State Fairs, 1884, 1885, '86, '87 & '88.

AWARDED

Gold and Silver Medals at Nevada and California State Fairs, and won contest money of \$50.

Requires but Four Men and Two Animals to do Rapid Work.

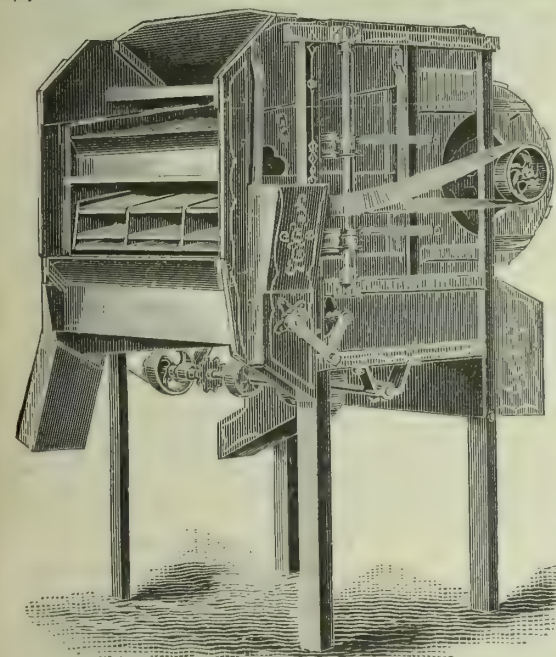
CAPACITY 30 TONS PER DAY,
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May 25, '85.

For Standard Size Baling Press,

Or seven and a half tons per day for each man employed, which is more than has been or can be accomplished by any other Press yet manufactured. Twenty tons a day with Tight Baling Press. Can put ten tons in a car. Satisfaction guaranteed.

Does not require Hay Stacks built to suit our Press.

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TO ORDER
WOOL PRESSES



The "STAR" Double Shoe CLEANER

—FOR—

COMBINED HARVESTERS,

Awarded First Premium at State Fair, Sacramento, Sept. 24, '87.

(PATENT APPLIED FOR.)

The "STAR" Double Shoe CLEANER

—FOR—

STATIONARY THRESHERS

We also build to order the "Star" Cleaner with sufficient capacity for any threshing machine. It is mounted on trucks and can be set by the side of any "thresher," the power being transmitted to it by means of a counter shaft on the thresher, or belt from the engine. The grain is conducted to the hopper by an elevator extending from the grain auger of the thresher to that of the Cleaner.

HOUSER COMBINED HARVESTER

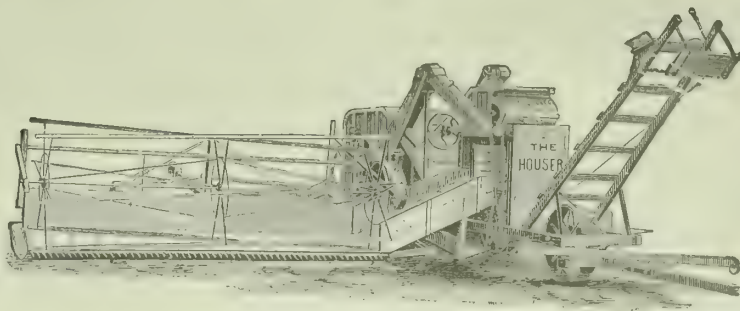
Received First Premium, State Fair, Sacramento.

No Experiment!

No Failures

NINE YEARS IN THE FIELD.

500 IN FIELD USE.



None Ever Returned.

They have a larger sale than all other Harvesters combined. Built for heavy work and large grain fields with heavy grain. Always victorious in competitive trials. They have reduced the cost of Harvesting to less than \$1 an acre, and save three bushels an acre over and above Heading and Threshing. Have our Premium Extra "Star" Double Shoe Cleaner, the only successful Harvester Cleaner made. Received First Premium in 1888.

WOODLAND, Sept. 19, 1888.

Stockton Combined Harvester and Agricultural Works —GENTLEMEN: The 14-foot Houser I bought of you this season fills the bill right up to the handle. I have cut 1200 acres; have threshed 628 bags of wheat in one day, averaging 540 bags for six days. The Star Cleaner and Improved Shoe are perfect, and last, but not least, I turn a square corner and save all the grain.

J. R. JONES.

YUBA CITY, Sept. 13, 1888.

Stockton Combined Harvester and Agricultural Works —GENTLEMEN: I have one of your Star Cleaner and Improved Shoes on my Houser Combined Harvester, and can say that the cleaner is far superior to any I have ever seen in barley, being able to return unbearded barley and pieces of heads direct to the cylinder, something that everybody can appreciate that has run a Harvester. The Cleaner is of sufficient capacity, I having threshed 850 sacks a day. It is well made and very durable. The new shoe is perfection. I consider the Houser very strong and durable, and as light draft as machines of lighter build of same capacity.

A. GRAFFIS.

BIGGS, Nov. 25, 1888.

Stockton Combined Harvester and Agricultural Works —GENTLEMEN: I bought one of your 16-foot Houser Harvesters this season and cut my crop of 1200 acres with same without any expense for extras. The Star Cleaner and Improved Shoe are perfection. Heretofore, when using another make of Harvester, I had to have all my grain cleaned at an expense of \$800 or more, but with my machine it was not necessary, as the grain was clean enough for seed as it was taken from the spout, and I only regret that I did not buy one two years ago, and I would have saved over \$5000. I prefer the Improved Houser to any other make of Combined Machines, and would recommend it to my friends in need of a Combined Harvester.

W. S. RIDDLE.

YUBA CITY, Oct. 15, 1888.

Stockton Combined Harvester and Agricultural Works —GENTLEMEN: The 16-foot Houser Harvester that I bought of you this season, with the Star Cleaner, gave entire satisfaction, and, I think, is the best Harvester in the market. Will recommend it to anybody or friend that wants to buy a Harvester.

J. W. HUMPHREYS.

Also Manufacturers of "Star" and Angle Sieve Grain Cleaners, Curved Standard Gang Plows and Plow Extras, Passenger and Freight, Motor, Cable and Horse Cars.

Office and Works, cor. East & Main Sts., 4 blocks East of S. P. R. R. Depot, STOCKTON.

CALIFORNIA VICTOR MOWER

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KING OF ALFALFA CUTTERS.

AGENTS WANTED.

Only Two Horses required to draw a 6-foot Victor in Heavy Alfalfa.

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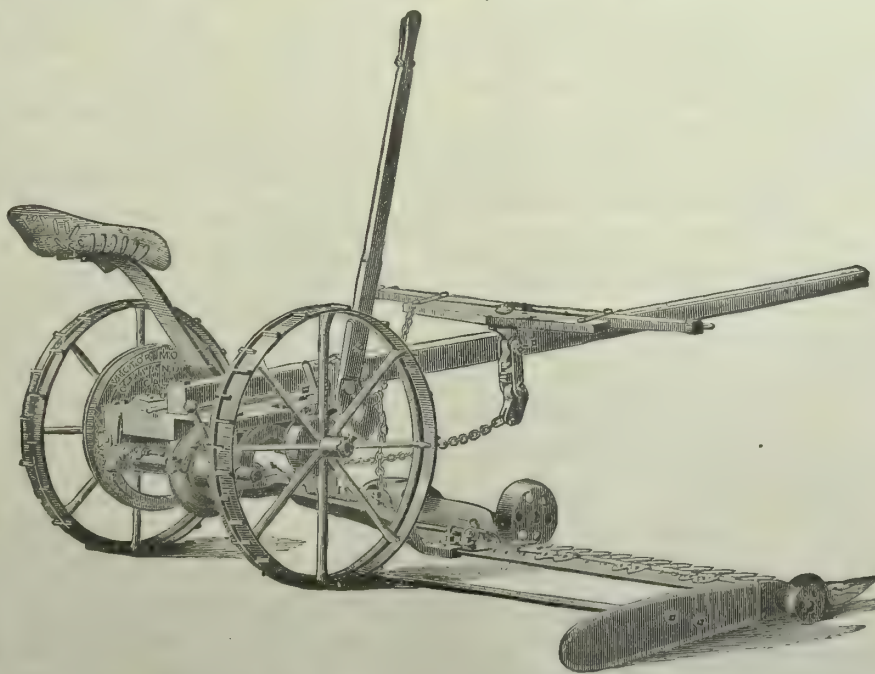
Pitman Short and Strong.

Draft Direct from Cutting Apparatus.

WILL REPLACE

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Any Part Found Defective.



Guaranteed to do More and Better Work, with Less Draft upon the Horses, than any other Machine made.

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Construction, Material and Operation in the Field.

FOUR SIZES:

4 Feet Cut,
4½ Feet Cut,
5 Feet Cut,
6 Feet Cut,

No Side-Draft.

Gun Metal Bearings

IF THERE IS NO AGENT FOR THE VICTOR IN YOUR VICINITY, WRITE US DIRECT FOR PRICES and TERMS.

JUDSON MANUFACTURING CO.,

14 & 16 Fremont St.,

San Francisco.

The San Joaquin Valley.

(Continued from page 378.)

They are best, because careful and efficient. Public land needing irrigation on a large scale might be awarded to them, on terms compelling sale to the actual settler in due season. But on no account should any grants of land or water be made, save in trust for the actual small owner. All else is detrimental to the best interests of the people and the Republic.

Let the Nation do its part, survey, and grant sites for reservoirs, and right of way for canals of a certain size and for public purposes.

Let the State franchise the corporations, and give right of way, etc., for other canals more local and of lesser capacity, with great care as to terms.

The smaller supplies would always be best in pipes and under ground. They save water, cultivable surface and health, are out of the way, and much less liable to get out of repair. And as the system is more and more perfected, it will reap an increasing yearly advantage to all in the San Joaquin valley.

As orchards, vineyards and ornamental trees and shrubbery more and more abound, the soil will be more shaded from the sun and those dry, desolating winds that are so damaging. The air will be more moist, from the constant evaporation of irrigated soil and plants, and the amount of water required will be less and less yearly as this process goes on.

Underground Irrigation.

Then experience will develop better methods of applying the water, as to time, manner and quantity, suitable to each crop. In many cases of small and peculiar crops and holdings, it has already been found that pipes under ground, and below the work of the plow or spade, is the most effective of all, and the most saving of water.

A friend of ours has his home garden arranged in this way. It is on a gentle slope. In a heavy rain the lower end of the pipes is let loose, and they act as a drain most effectually. In dry weather this is closed, the pipes are filled with water, and by a cistern, filled or empty, the pressure is increased or withdrawn. In this way his ground is always moist, with no loss of water more than is necessary. A little sprinkle occasionally on the surface, the growth and greenness at all seasons is magical to behold. He said to us one day: "You see that three things are necessary to the production of luxuriant crops, soil, sun and water. The soil is here, the sun is in plenty, too much, rather, and it must be met with water. There must be a balance of these powers, sun and water. Too much sun and too little water, and your plant is stunted and dies. Too much water and too little sun, and sickness and death ensue. Now I have the means of keeping a perfect balance. These pipes and this pressure do the business exactly. There is no drooping here, no stoppage of growth; the sun pours on the heat, and I force up the water to keep pace with him, and all is green and grand. What is the limit of production? How many crops are possible? What will an acre produce in this way? I don't know! I have found no limit yet! That alfalfa has been out six times, and see it now! Vegetables just come as we want them. This garden never rests. I feed it with manure, of course, for I fear it would exhaust; but so far, and for five years, I see no sign of decay. One acre fixed thus would profitably employ a family in planting and picking, say, and maintain them too. Twenty tons of vegetation can be produced.

"But that is enormous! So it is, but it is true. In a great many things 20 tons would be a small crop for an acre, worked as my garden is. At one cent a pound that is \$400, and it would feed the family besides. Then you see in this climate the merest shell is a good house, clothing is mainly for ornament, fuel is unnecessary except to cook, and almost every day in the year you can work with pleasure, only when it rains, and then you may read, rest or gossip. The rain is doing more work for you than you could, anyway.

A Plan for a Small Holding.

"With ten acres, one fixed as mine is, you have a perfect farm, ample for all purposes except making a great fortune. How would you lay it out? Well, let us put it in nine parts, thus:

"Division 1 is in the front center and faces the public road. It is under-drained and irrigated as mine is, and produces say one-half of my former estimate, or ten tons.

"Division 2 is an orchard with 200 trees and endless shrubbery for small fruit. At three years old it will begin to pay well; at five it will yield fruit enough to supply four families, and more every year.

"Division 3 is a vineyard, well kept and watered. In three years it yields all your grapes and wine, and more yearly for a century. After ten years you may count on \$200 an acre besides your own use.

"Divisions 4, 5, 6 should be in alfalfa, all fenced. As each lot is well up in growth, cut or turn in your stock, horse, cow, calves, etc. But never feed them right down, so as to lay bare the roots to the sun. Keep the ground well clothed. These will keep them all and give you milk and butter.

"Divisions 7, 8, 9 will be for small grain, wheat, oats, barley or corn. Well tilled and watered they will give you 100 bushels of good grain, some straw and some feed besides, and

make a good run for your chickens. With such a home, in such a climate, you have nothing to wish for, and ten good acres in the San Joaquin valley will do all that. If you have a hundred acres you are rich."

Results of Improved Farming.

And this is the kind of home the great valley is suited for. It needs the hand of man on every acre, to provide shade from the sun and water for the plants. It will not yield its wealth to the cattleman, who takes all there is and gives back nothing; nor to the grain farmer, who sends his crop to England and leaves the soil to the dominion of the hot sun and the weeds from harvest to seed time. It wants nursing, trees, shade, water, the hand of care, the presence of the owner, on every acre. It wants hands right there, to pick the crop and mouths to eat it, while fresh and green, and the waste to go back to the soil, to aid fresh efforts. And to these it will give an everlasting home and abundance to millions of happy human beings.

To millions! No! less! There are at least ten millions of acres, and every acre will give and to spare to one human being for its culture. That would be ten millions. But let it be five, or three, or two, and what a change will have come from the dead past!

Past and Future.

Forty years since, 10,000 poor, naked Indians!

Twenty years since, 20,000 cattlemen, herdsmen and Indians.

To-day, 40,000, from lo! the poor Indian, almost extinct, to the herder, cattleman, rancher, orchardist, merchant and banker.

In 20 years hence 200,000 men, women and children, in every grade of life, but all living in plenty in that glorious land!

In the year 2000, three millions, under their own vines and fig trees, and knowing neither want, winter nor fear of either.

And it must come. Three millions of people! A thousand villages of 500 persons each! A hundred towns of 5000 each! And a few cities of 50,000 each! Railways, a gridiron, across and across, and nowhere ten miles apart. Canals all over, with boats for pleasure or for business. The mountain-sides adorned with villages and mansions even to the snow line, for summer excursions. Mt. Whitney, a plaything as it were, for the young folks to visit and climb over his frosty crown, that they may realize a winter never known in the vale below. And Tulare lake the charmed center of the fairy-land, and the general attraction.

Yes, the lake in those days will be curtailed somewhat. Science will have placed it under bonds of good behavior. Its breadth 10 miles instead of 20. Its lowlands all gardens, vineyards and fields of grain. Its banks, garden fences. Its landing places the stepping-stones to beautiful mansions. Its craft the argosies of commerce mingled with the yachts of pleasure, that carry laughing girls on daily visits across the water.

The water will be sweeter and cooler for the less surface exposed to the sun. The islands will be picnic grounds. On the clear days the opera-glass will be used to signal over to the other side and make family communications. Steamers from San Francisco will make their daily visits, and pass beyond to Buena Vista lake and Bakersfield.

All this is to be done within 100 years. A new world to be conquered, settled, and brought into the circle of commerce and civilization. War hath no victories like this. America is blessed in these new fields. They keep us busy. They make us content with peace. We conquer daily, without shedding blood, more of stern Nature's wide domain than other nations with their millions of soldiers. In each decade we add 10,000,000 to our people, and as many acres to our cultivated domain.

But in no part of our great territory will our industry be more richly repaid than in the valley of the San Joaquin. Take it for all in all, the world has no better site for the Garden of Eden, the Summerland, or the Utopia of Poesy.

Suggestions for Present Action.

Would we then recommend persons to buy homes there, on the scale we have delineated, of 10, 20 or 40 acres?

Yes, if you are young and have a little means and will be content for 20 years with a modest living for yourself and family. If you are seeking a fortune, are ambitious, restless and not adapted to country life and labor, no, never! You must know yourself well, your abilities and purposes. If married, and with a family, and content to spend your days in their society, there is no better place on earth for you.

Next to being sure of yourself, be sure of your selection. See it, know it, before you purchase. The soil must be good; it should be first-class. That is worth at least twice as much as a grade only one degree inferior. Remember that all your life it will be a little less return for your care and labor. And there are many degrees of richness and availability. On the same section, the same quarter, you will find the good and the worthless. In places, two joining acres will be first class and no good. Follow no map, no guide, but your own eyes. See that your title is perfect to both land and water. Make no mistake in this regard, and take into account all the outlying conditions, as to fencing, stock and other advantages.

Finding all secure, and having means to buy and improve and live till the returns begin to come, you may venture to buy. Don't be deceived into paying fancy prices, save for first-

class conditions. Bear in mind that you will have to give almost all the value by your labor and outlay. If the land is worth \$500 an acre in 20 years, your labor will have made it so, and it may still not be worth your outlay.

Your water right may not be perfect. It is yet liable to new legislation and new rules of courts; but if it be safe and sound as the law now stands, you may rely on the Legislature to make no law that will put the small holder to any material disadvantage. There is water enough in the valley for every acre, and the law will always aid the actual settler with his family in drawing a fair share.

Women and Children.

As a citizen and voter it is in a great measure in your own hands to make yourself and your family secure and happy. We are a peculiar people, hard, sharp and wire-edged sometimes on a bargain or in a contest, but where women and children and family homes are concerned we are generous and chivalrous almost to a fault. A woman, while she herself remains within the pale of decency, no matter what her faults or misfortunes, is an object of profound respect from one end of the valley to the other. If she must be arrested, the constable does it hat in hand and with profuse apologies. As she enters the court the officers make obeisance and the judge will not be seated till the lady defendant is first provided for. In such a land woman has nothing to fear. It is proverbial that if you go to law with a woman, unless your case is all on your side, you may expect defeat before the jury. There is something in the air that breathes of chivalry.

To the children the State is generous to a degree. The common school is in every place where pupils are to be found. The endowments are not equal to the whole cost of schools all the year, nor do you want them. There are times when the children can be very useful at home in the garden and orchards. But none need to lack an ordinary education that have a mind to acquire it.

On the score of health, there is nothing of which to complain. In the heat of summer there may be a little trouble with the stomach through inattention to diet, but the whole people show that health and length of days is the rule, and vigor of mind and body is the characteristic of all.

Churches abound, and though there is a vast variety of sects they live in peace, mindful of the Constitution of our fathers, that secures to all the right to be of what religion they please. The lion and the lamb do indeed lie down together and no man makes them afraid.

Your market is good and assured. A great railroad, with numerous branches, runs the whole length of the valley, goes to each city of the State, and on two lines to the East, even to New York. With a small farm and a large family you will be your own best market. Three-fourths of all your labor will go to furnish your own household. The other fourth must be a choice selection that will pay charges for transportation and leave you a good margin. As the country grows the small farmer will soon find that mechanics and tradesmen will appear and make a home market always the best of all. But the storekeepers are well posted as to prices in the city and will do a very fair business at your own door. No good thing did ever yet go begging for a market.

Fruit must go to the packers and East. It will be the great staple of the valley.

Grapes sell readily and profitably as raisins. All other products must be put up in the best possible shape, be of fine quality and sent to the city.

Everything inferior must be consumed at home or put into hogs, cattle, sheep, chickens, etc., so as to find a market with less freight charges.

As to outside commerce, what you need to buy, no place in the world is much better supplied, or at lower rates. Lumber, fuel and clothing are produced by the finest machinery in the world, and are sold at prices within the easy reach of all. Your food is all in your own hands, or that of your immediate neighbors on exchange.

The Climate and its Values.

Here you are in a land in which there are 300 working days in a year on which there is nothing to interrupt your outdoor labor. Only the rain can compel you to remain indoors. And here, the rain is the open hand of God pouring His blessings on all creation. In California the rain is worshiped. We make poetry to "The Beautiful Rain." We sit and sing as it pours down. Every drop is a grain of gold. It is more enriching than all the labor we could perform, so we rest in peace and content when it rains.

Cold! never! Not a day lost for the cold. In winter, if there is a nip of frost in the morning, that is all. The thermometer may stand at 30° as you make the morning fire, but before noon it will mount to 40°, 50°, and perhaps 60°. But for the most part, Christmas morn begins with 40°, and you shed your coat before the day is through.

Heat! Well, you have enough. With those snowy mountains in view, in June, July and August it will leap up at noon to 100°, and rarely to 110°. Then shade is comfortable. But shade is cheap. A leafy tree, or house porch, costs nothing, compared to a roaring fire. And as the sun sets, down come the cooling breezes from the snow-clad peaks. By bedtime a pair of blankets are even desirable. Rarely, indeed, do these zephyrs fail and leave you with a sultry night.

Then in these warm days you can work about the water. It is needed most then. You are irrigating, or preparing to do so, and the cool water is agreeable.

Your home here need not be a castle, but only a shelter, an ornate tent will do. There are no storms, no high winds, no thunder, and but little lightning. Many very nice people have dwelt here in tents for years, or the shade of a great tree has been their home. It is the fashion to set breakfast on the lawn, and eat the evening meal on the porch, and dinner in the shelter of the leaves.

Your food need not be of the solid wintery variety. There is no cold to resist. Light diet is preferred, and is best; fruits, sweets and dainties are preferred before fats and oils, pork, beef and mutton. The object to keep cool, and not to brace up against ice and snow. The cooking is light, and the fire dispensed with when it is done.

Your clothing here is of the gossamer variety, for show rather than service, an encumbrance rather than a necessity or delight. If you are in love with negligent deshabille, here you are in heaven, surely. At home, all that decency will bear of dress economy is freely indulged. With a good broad-brimmed hat, and whatever else you please, you may work in the garden.

Harvest-time has no interruption from the elements. The sun alone attends to business in the summer months. You can leave hay or grain where you will for weeks. The clear sky is an ample cover from all but old Sol.

In no quarter of the globe is it less expensive to live, or less exposing to work. Nothing but dissipation can waste human life here.

Yet the people live lively, eat plentifully of their good things, and dress, when abroad, as for a merry masquerade. As to the boys, the less said the soonest mended. Their hunts after fish, jack-rabbits, quail and gophers, and their abundant delight in swimming and mud-puddles, is manifest the moment you behold them.

The little misses are of another species entirely. Shaded from the brazen sun, and carefully kept out of the mud, they trot to school like little dolls, to the utter amazement of their little brothers, and a delight to all beholders. Nowhere does feminine human nature shine forth to better advantage. All the ribbons and furbelows the traffic will bear, is the rule; all the finery they can afford to carry with the thermometer at 80 to 100°, is displayed, and borne with a perfect martyrdom, for effect.

Facts and Their Lessons.

Thus is California looming up into a great State of our great Union, and the gem of all, for her gold, her climate, her soil and people. In 50 years she has rubbed out an utter barbarism and planted the highest civilization known to man. In the San Joaquin valley, in 1850, was nothing but naked savagism. In 1890 the highest civilization in the world will be seen there, the finest grain-fields, the most beautiful orchards and gardens, the richest vineyards, the railroad, steamboat, school, mansion, palace, and some of the most happy, virtuous and intelligent human beings in all this world. They are all there now, and ere the century closes they will be a hundred thousand.

What has wrought so marvelous a change? Intelligence and industry—people already trained elsewhere and ready to develop all the resources of nature to their utmost worth. They had not time to tutor the savage and bring him into their system. Away with him, he cumbered the ground! It was cruel; it seems inhuman. But look at the result! Ten million acres of land reclaimed from barbarism and made the garden-spot of the world—the very center of art, science, progress and beauty, in 50 years.

Look over the earth for a parallel to this. Nations that were semi-civilized when Abraham first knew God, when Moses broke the tables of stone, when Christ delivered the sermon on the mount, are just there still, and infinitely behind this great valley in all that makes a people great.

There is a lesson in this. What is it? It shows what a free, intelligent and industrious people can do, let loose in a new and rich land, in comparison with a slow, fettered and non-progressive people. It takes more than 3000 years for the slaves of ancient superstition and monarchy to emerge from the barbarism of Arabia, as Abraham knew it, to the dull mediocrity of modern times. You can scarcely perceive the movement, the forces that hold back are so strong. This is why Russia, even England and Ireland, France and Germany, move so slowly. All is set and fixed. The monarch, the priest, the noble, must move first or all stand still.

In America, he is first who is best, bravest, wisest, the most inventive and the best inspired. Ten thousand people come from the end of the earth to a new region, full of wealth and wonders, and they proceed to develop all to its utmost worth. It leaps over thousands of years, and produces London mansions in a decade.

Experience and foresight should teach us that not Chinese, not bigots, not paupers, not dullards, or anarchists, or tramps are the proper material to build a Republic, but live, free and intelligent men, who can plant the civilization of the nineteenth century in the desert in one decade. Let us close our doors to all the rest. It is easier to make new people altogether from our own good stock than to mold these old fossils into the new Republic and its methods.

Stockville Mosquitoes SING LOUD!

But are ONLY MOSQUITOES after all.

The "CYCLONE" Blows them Away and Drowns them in the Surplus Water Which it Always Gives its Owner.



MOST ANY MILL LOOKS WELL ON PAPER,
BUT SALES COUNT!

The Paint Alone on the CYCLONE Mill Costs More in
a Year than the Entire Sales of Some
Windmill Cobblers.

PACIFIC MANUFACTURING COMPANY,

575 Mission Street, and 60, 62 & 64 Minna Street, San Francisco, Cal.

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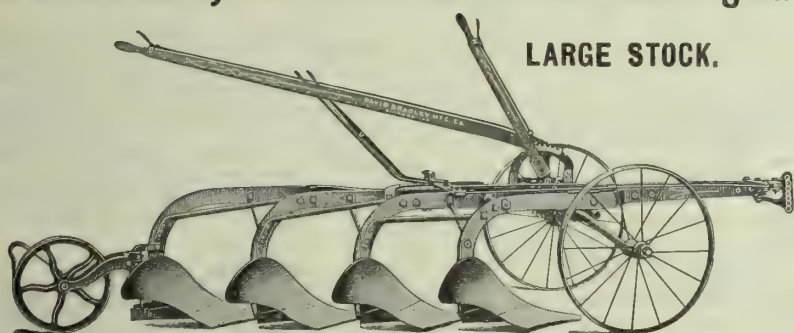
109 and 111 NORTH FOURTH ST., PORTLAND.

SAN DIEGO WINDMILL CO., 527 FIFTH ST., SAN DIEGO.

LOS ANGELES WINDMILL CO., 153 LOS ANGELES ST., LOS ANGELES.

WHITE, COOLEY & CUTTS, Marysville. J. L. STEVENSON, Reno, Nevada.

The New Bradley Three and Four Furrow Walking Gang.



Also VICTOR and McCORMICK MOWERS and Extras for Same.
BUGGIES, CARRIAGES and FARM WAGONS.
ROAD SCRAPERS.

PRICES LOWER THAN THE LOWEST.

CALL AND GET PRICES.

Depot Under Masonic Temple, Opposite Steamboat Landing.

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T. C. CABNEY & CO., 314 Eldorado Street, Stockton.

WEYHRICH HEADERS!

H. C. SHAW PLOW WORKS,

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Has on hand a limited number of 10 and 12-foot Weyhrich Headers, in perfect running order,
which he will sell at

GREATLY REDUCED PRICES.

Also Keep in Stock a Full Line of Weyhrich Extras.

FULL PARTICULARS SENT UPON APPLICATION.

GRANGERS' BUSINESS ASSOCIATION, SHIPPING AND COMMISSION HOUSE.

OFFICE, 108 DAVIS STREET, SAN FRANCISCO, CAL.

Warehouse and Wharf at Port Costa.

CONSIGNMENTS OF GRAIN, WOOL, AND ALL KINDS OF PRODUCE SOLICITED.

Money advanced on Grain in Store at lowest possible rates of interest.

Full Cargoes of Wheat furnished Shippers at short notice.

ALSO ORDERS FOR GRAIN BAGS, Agricultural Implements, Wagons, Groceries
and Merchandise of every description solicited.

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Hardware and Groceries AS CHEAP AS THE CHEAPEST.

Agents for Studebaker Wagons, Carriages and Buggies, Oliver Plows,
and Cassidy Sulky and Gang Plows. Country Orders Solicited.

O. W. ERLEWINE, Manager.

WM. JOHNSTON, President.

WM. GREER, Secretary.



A GREAT SACRIFICE!



On account of the death of F. A. BRIGGS, Manager of the Pacific Coast
Branch of the Amesbury (Mass.) Carriage Factory, the whole stock of fine
light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for
sale at less than cost, to settle the estate. C. CREGO, Administrator.

SALESROOMS, 220 and 222 MISSION ST., SAN FRANCISCO.

JEFFERSON COLONY,

Situated ten miles northeast of FRESNO, in the fertile DRY CREEK BASIN, joining the well-known THERMAL
BELT of the Sierras. Free from early and late frosts and hot and cold winds. No trace of alkali. At the junction
of the MOUNTAIN and OAKDALE RAILROADS. A Water-right in the Enterprise Canal deeded with each lot.
Finest RAISIN, FRUIT and ALFALFA lands for sale in TWENTY-ACRE LOTS. Price \$80 per acre; one-third cash,
balance in one, two and three years. Also, a large list of City and Country property.

VINCENT, CHITTENDEN & COLE,

Office, North I Street, DeLong Building,

FRESNO, CAL.

Stockton Pavilion.

We take the liberty of reproducing the fine engraving published by us in our special issue of the Rural Press for the San Joaquin valley in 1887. The results, as we anticipated, have been more than realized in the successful exhibitions held in the last two years, while this year promises to eclipse all others. We quote a short description from a contemporary:

The Agricultural Pavilion.

The property of the San Joaquin Valley Agricultural Association, occupies the full block bounded by Hunter, Lafayette, El Dorado and Washington streets. This really magnificent structure was completed in August of last year, and aside from its being the handsomest and most prominent building in Stockton (the new courthouse being unfinished), will be of immense benefit as a place where the varied resources of this rich county—agricultural, horticultural, viticultural, manufacturing, and otherwise—may be properly exhibited. It was erected at a cost of from \$40,000 to \$50,000, and is, if the writer is not misinformed, the finest building devoted to fair and exhibition purposes in California. The grounds upon which it stands are 303 feet square, a full city block, and the building itself is 280 feet in length each way. It is built in the form of a cross, the four wings being 96 feet long, each surmounted by two towers, with a lofty main tower and observatory in the center of the structure. The grounds are now being planted to a variety of choice trees, plants, shrubbery, and flowers, which will themselves be an exhibit of the fertility of the soil, and greatly add to the appearance and beauty of the building. This pavilion has been "a long-felt want," so to speak, of Stockton, and is one of the many important additions to the city which are the result largely of the efforts of L. U. Shippee, Esq., the present mayor and president of the association, who for several years has been indefatigable in urging the erection of such a building.

Following are the officers and directors:

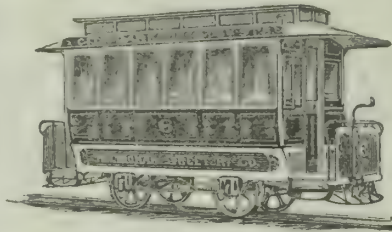
DIRECTORS—L. U. Shippee, Stockton; John E. Moore, Stockton; Jas. A. Shepherd, Lathrop; Fred Arnold, Stockton; B. F. Langford, Lodi; Chas. E. Needham, Belota; L. Gerlach, Stockton; R. C. Sargent, Lodi.

OFFICERS—L. U. Shippee, Pres.; J. M. La Rue, Secy.; A. W. Simpson, Treas.; Fred Arnold, Supt. of Pavilion.

Laufenburg's Traction Engines.

The cut of Laufenburg's traction engine on this page should attract more than ordinary interest, as it is made from the boiler and machinery of a portable engine that was used in running a Pitts separator. The new system of using the Combined Harvester that had its inception, and was brought to its present state of proficiency in the city of Stockton, has caused hundreds of portable engines and separators to be laid aside as useless farm machinery. Mr. M. Laufenburg, a noted inventor of labor-saving farm implements, conceived and advanced the project of utilizing these portable engines by converting them into traction engines. The directors of the Stockton Combined Harvester and Agricultural Works encouraged the project by giving him the facilities of their immense works. It was looked upon as

chimerical, but the crowning result has been consummated and a portable engine has been transformed into a traction engine that has been put in practical use this season. Grain that was sown on land plowed by this traction engine will, it is expected, move a Houser combined harvester to harvest the grain and haul the sacks of wheat to the railroad station. Threshing straw will be used for fuel, which, taken in connection with the result of 20-horse power being equal to 26 horses, makes the cost



Street Car Built in Stockton.

of seeding and harvesting 50 per cent less than that of horse-power. Besides, the engine with electric lights can run day and night, thereby doing the work of 48 horses. We here-

with give a succinct description of the mechanical features of the traction engine. There are no intermediate gears through which the power is transmitted. The traction wheels are driven by a pinion on countershaft, which revolves with gear engaging the pinion on the crankshaft of engine. Thus the application of power is direct and not through a system of complicated gears which are liable to change their bearing by wear and break. The journals, which carry flange-wheels to control position of traction wheels and main gears, are provided with a device to regulate and parallel the face of cogs on the gear pinions and main gears, and natural wear can be taken up at all times. The main traction wheels, although high, carry the weight of engine and boiler on journals on a level with line of draft when pulling a load. Thus the transposition of weight from traction to lead wheels is avoided, which is not the case when the weight of engine and boiler is journaled in hub of wheel center, more especially when a high wheel is employed.

Parties interested in this invention should address M. Laufenburg, the inventor, or the Stockton Combined Agricultural Works, for further particulars.

In this connection it seems quite appropriate to call attention to the great industrial es-

tablishment of the Stockton Combined Harvester and Agricultural Works. They are manufacturing the "Houser," a harvester that has grown in favor each year and is now the leading combined harvester of the Pacific Coast. They also manufacture Miller's Lightning hay press, the celebrated Star cleaner, curved Standard gang plow, improved farming implements suited to the agricultural interests of the Pacific Coast, and street cars, a picture of one of their manufacture, as seen on this page.

Grangers' Union.

This agricultural implement house extends from street to street, and is stocked with a full line of agricultural machinery, tools, hardware, etc. In specialties they are agents for the Standard mower, John Deere's New Deal plows, Aome and Corbin harrow, Hodges' Haines headers and the Mitchell wagon. It is an enterprising, liberal and reliable corporation, and has rendered material aid to the farmers and horticulturists in developing this section of our State.

CONSUMPTION CURED.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. NOYES, 149 Powers Block, Rochester, N. Y.

Site for Home for Feeble-Minded Children.

Sealed proposals for a permanent home will be received by the Trustees of the California Home for the Care and Training of Feeble-Minded Children on or before May 1st.

Bids will state price per acre for not less than three hundred acres, character of land, water supply, elevation, climate, improvements, distances from railroad depot or steamer landing, and any other details of probable interest.

Proposals to be indorsed "Bids for Site," and addressed to

MRS. KATE B. LATHROP,
1311 Hyde St., San Francisco.

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—THEY USE—

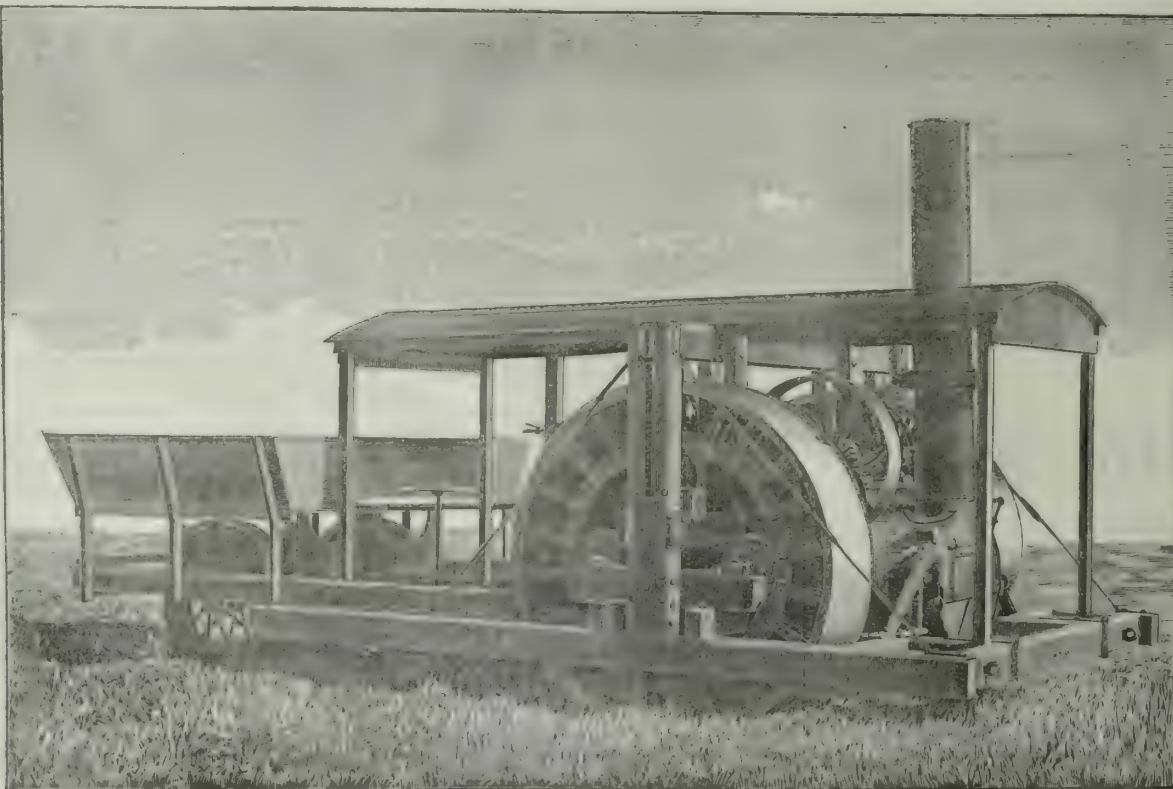
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One Million Sold. Second Million rapidly selling. All Beauties Get one before you spend all your money foolishly. HEADQUARTERS:
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\$300,000

To loan at eight per cent per annum, and mortgage tax paid by lender, on approved security in Farming Lands.

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LAUFENBURG'S TRACTION ENGINE.

H. C. SHAW PLOW WORKS,

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Five Carriages, Wagons, Carts and all Kinds of Agricultural Implements.

BUGGIES in Every Grade.

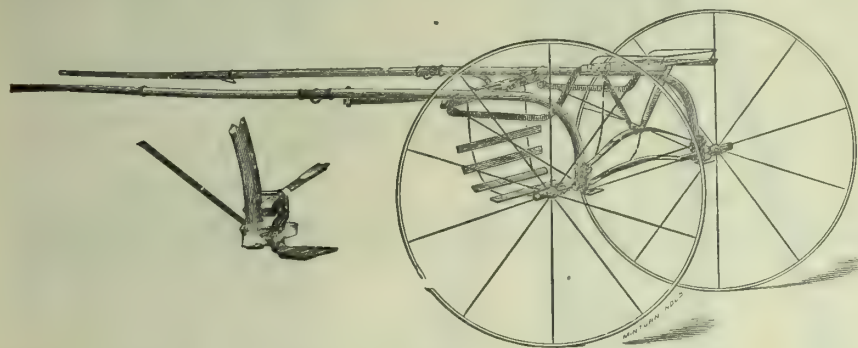
TRIUMPH MOWERS,

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Both Self and Hand-dump.

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Empire Cultivators, Garden Tools, Lawn Mowers, Seeds, Etc.



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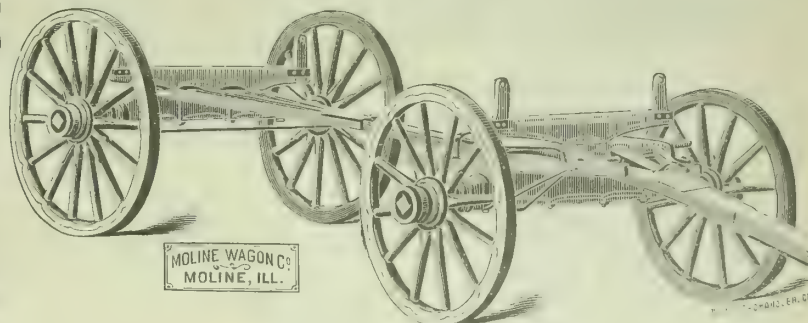
"Downs" all its Competitors. Beats Anything for the Money ever Brought out in the Shape of a Cart.

STRONG, SERVICEABLE, DURABLE.

It is Simple, Light and Strictly First Class, all Second-growth Hickory, Steel Axles and Steel Tires. PERFECTLY BALANCED. Low Bent Seat Arms, Long, Easy-riding, Oil-tempered Springs, Best Wheels and Best all over. It hangs low, rides easy and has no horse motion. PRICE, Two-Passenger Cart (Wheels, Springs and Axles guaranteed for a year), \$25.

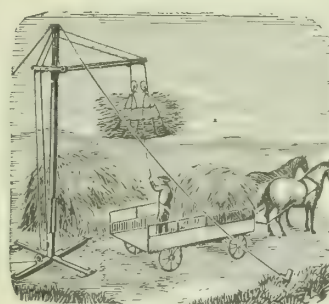
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The Best in the Market.

POWELL'S PATENT DERRICKS AND NETS.



Unloading.

Manufactured and sold for over 15 years and never one returned.

The entire wagon-load is hoisted up in a center opening net, by a self-braced Portable Derrick which is moved from stack to stack ground without being taken down. Half an hour is ample time to move and set. Two nets can be used in each box, and the load taken out in two parts by having a partition in the box. Any farmer can at once see many advantages gained by the use of this invention.



Moving.

SEND FOR SPECIAL DERRICK CIRCULAR.

365, 367, 370, 389 and 391 El Dorado St., Stockton, Cal.

E. S. VAN PELT.

P. D. CAMPBELL.

A. H. KELTON.

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THE PACIFIC HOSPITAL, STOCKTON, CAL.,

Private Hospital for the Care and Treatment of Mental and Nervous Diseases.
Persons Suffering from Cocaine and Morphine Habit Treated.



The proprietary institution known as the Pacific Hospital is especially devoted to the care and treatment of mental and nervous diseases. The buildings are capacious and comfortable, having been constructed for the accommodation of over 200 patients, and they are pleasantly situated in the suburbs of Stockton, and surrounded by attractive grounds of forty acres in extent, with cultivated gardens and pleasant walks. Its advantages over public institutions, in facility of admission and procuring extra accommodation, if required, are obvious.

For Terms and other particulars, apply to the proprietor and superintendent.

Dr. ASA CLARK, Stockton, Cal.

REFERENCES—Dr. L. C. Lane, San Francisco; Dr. W. H. Mays, Stockton, Ex-Superintendent of the Stockton Asylum; Dr. Robert A. A. McLean, San Francisco; Dr. E. H. Woolsey, Surgeon S. P. Co. and Oakland Hospital; Dr. John E. Kunkler, San Francisco; Dr. W. S. Thorn, San Jose; Dr. G. A. Shurtleff, Napa, late Superintendent State Insane Asylum; Dr. I. S. Titus, Superintendent State Insane Asylum, Oregon.

No Man Has Ever Used the H. H. H. Liniment and Been Dissatisfied.

ATTENTION, STOCKMEN!

Importers and Breeders of Fine Stock Pronounce the

H. H. H. Liniment

A Safe and Reliable Remedy for the Treatment of Sprains, Bruises, Ringbones, Spavins, Splints, Callous, Lumps, Swinney, etc.; in fact good for anything for which a Liniment is usually applied.

The "H. H. H. LINIMENT" for Stable Use.

MESSRS. H. H. MOORE & SONS, Stockton, Cal.—GENTLEMEN: In answer to your inquiry, would state that I used your H. H. H. Liniment on my Holland prize winning cow, "Lena Menlo," for a wrenched Shoulder, and it relieved her very much. She calved the next day, and while still suffering from the sprain gave the largest authenticated quantity of milk ever given on this Coast (10½ gallons per day), showing conclusively the great relief received from your remedy. I consider it a necessity in my stables, and when away from home feel perfectly safe, as inexperienced men can do no harm with it, as they can with the more powerful blisters. Respectfully yours, FRANK H. BURKE, Breeder of Registered Holsteins and Berkshires. Menlo Park, Cal., January 22, 1889.

The "H. H. H. LINIMENT" for Family Use.

MESSRS. H. H. MOORE & SONS—DEAR SIRS: Six months ago I had a terrible stiff neck which lasted two years, and after trying every medicine recommended without relief, was induced by a livery man to try your H. H. H. Liniment. He said it would take the stiffness out of his horses' legs every time. I used two 50-cent bottles and in three weeks' time I was well as any man. I thank you for your wonderful H. H. H. Horse Liniment, which relieved me of so much trouble and pain.

JOHN McISAAC,
Old I X L, Kearny and Commercial Streets.

H. H. MOORE & SONS, Proprietors,
STOCKTON, CAL.

Vaca Valley Interests.

EDITORS PRESS:—The weather has been pleasant the last week, with rain threatening. Last Thursday there was lots of thunder and lightning running around, but little rain fell.

The many signs of spring show that it has come. Picnic-bills are blossoming out; barley and wild oats are headed; and the orioles and commission-men are flying around, as if there were lots of business to attend to. Everybody is busy killing weeds, of which there are plenty.

Cherries promise a fair crop now, but a day's north wind, or cold rain, may change the prospect.

Some kinds of peaches are taking the curl leaf badly. They will not have to be thinned as they had to be last year, when in many orchards from six to ten trees were as many as a man could thin properly in a day.

Apricots are about half a crop. Three cents per pound is the price now asked.

Last year some, in packing fruit to go East, put a postal card in the box, with their address on it, and a request that the one who received the fruit would send word in what condition it arrived. Many answers have been received.

Two years ago, four parties at Vacaville, who have about 500 acres of bearing orchard, entered into a contract for five years, with the Carquinez Packing Company, located at Benicia, to furnish them with apricots, peaches, pears and plums, at the following prices:

Apricots, to weigh at a minimum, 13 to the pound, 1 1/4 cents per pound.

Peaches, to be 2 1/4 inches in diameter, 2 3/4 cents per pound.

Pears, minimum weight, three to the pound, 2 1/4 cents per pound.

Plums, 1 1/4 cents per pound.

The fruit to be shipped in 50-pound boxes.

A misunderstanding arose between the parties as to where the fruit was to be weighed; those raising the fruit claimed it should be weighed at Vacaville, while the company claimed that it was to be weighed at the cannery. The loss by shrinkage was four pounds to the hundred, or 80 pounds to the ton.

Mr. Gates was willing to divide the loss, but the company wanted all or none, so a friendly suit (if there be such a thing as a friendly lawsuit) was agreed on, to decide who was right. The courts have sustained Mr. Gates. This will make a difference of over \$1000 per year to the sellers.

The Vacaville parties think they made a good bargain in contracting their fruit. Their apricots were sold too low, but the peaches were high, which makes it about even. They know what they are going to do with their fruit, and are not troubled about the high freights East.

Vacaville, April 7, 1889.

Austin Bros.

This is one of the oldest hardware establishments in Stockton. It was originally established as a branch of the well known firm of Thos. X. Selby & Co., of San Francisco, the present owners being successors to that firm. The individual members of the firm are H. S. Austin and W. B. Austin, the latter being the resident partner in Stockton, H. S. Austin residing in San Francisco. This house carries a very heavy general line of hardware, embracing all the heavier goods that are handled in connection with it. Their place of business was built by them, and is especially adapted to the requirements of their business. Two stores, each 150 feet deep by 50 feet front, a portion of the second story and the basement, well filled with a desirable and well-selected assortment of heavy and shelf hardware, mechanics' tools of all kinds, builders' and carriage hardware, steel, bar and sheet iron, blacksmith's tools and supplies, leather and rubber belting, packing, hose, cutlery, etc. This firm being importers direct from manufacturers, are enabled to offer superior inducements to their customers. The success of this establishment from its start is



TUBULAR WELL-BORING APPARATUS MANUFACTURED BY THE PACIFIC MFG CO.

the best evidence of its general popularity, and it is to such houses that Stockton is indebted for its reputation as a mercantile center.

Enterprise Planing-Mills.

The above name is fittingly chosen as one of the great enterprising and leading industries of the city of Stockton. These mills cover nearly half a block, with streets on three sides of the building, which is built of brick and covered with iron corrugated roofing. The proprietors, P. A. Buell & Co., are contractors and furnishers of mill-work for building. Their orders extend the full length and breadth of the great San Joaquin valley to Carson, Nevada, Arizona and New Mexico. The mill-work for the Southern hotel at Bakersfield that cost \$100,000 and five large buildings in Fresno city, completed

lately, was furnished by the Enterprise Planing-Mills. Although they are principally devoted to mill-work for buildings, they have departments in their immense establishment for making boxes, tanks, windmills, etc. They have the reputation of being one of the most pushing, sagacious and reliable firms of the San Joaquin valley.

During the last year they furnished of manufactured mill material for construction of dwellings to the value of over \$150,000, and the demand for goods promises to be much larger this year.

GOOD IF TRUE.—It is stated that Postmaster-General Wanamaker has established an inviolable rule that no post-office shall be kept in a saloon, or in any room from which a saloon may be entered.

Tubular Wells.

For thousands of years the people all over the world have been trying to get pure water from beneath the earth's surface. The first way hit upon was to dig deep pits and let the water accumulate in the bottom. After that it became customary to dig round or square wells and lay up the sides with stone. This method continued to be the way most in vogue for many years.

The adoption of artesian wells was a very great advance in the science of water production. Artesian wells were rendered possible by the growth of mechanical science, the production of iron and its manufacture into tools and pipe, and in areas of country which contain the proper strata, the artesian method is still the best for conducting large bodies of water to the surface. An artesian well, however, costs a good deal of money, all the way from \$500 to \$5000, and sometimes they are failures.

Within the last few years a number of intelligent men in the Eastern States have been experimenting and perfecting methods of putting down smaller wells to a less depth, with a view of obtaining sufficient water for domestic purposes at an expense not greater, and in most cases less, than attends the digging of an ordinary round or square well.

It must be borne in mind that the size of the well does not offer any guide as to the amount of water which can be pumped from it. Its value as a water-producer depends upon the fertility of the stratum which it may pierce. It follows, therefore, that the amount of water drawn from the gravel-bed or stratum of whatever nature may supply the water depends upon the size of the pump which brings it to the surface rather than the diameter of the well; hence any method which places the suction of the pump in the water-bearing stratum affords a proper and suitable method of bringing the water to the surface.

The illustration herewith presented shows a set of tubular well tools invented and perfected by one of the best well-men in the United States, a man of great experience and success.

These tools are adapted for sinking wells of from two to three inches in diameter and are very rapid in their work. The operation in the sinking of a three-inch well is about as follows:

The tools are set up on the spot where the well is desired; ordinary three-inch pipe is used for the casing, and as will be seen later, constitutes the pump as well; the hole is started, of course, with an ordinary auger and the pipe is entered; the first section of pipe is attached to the pump cylinder or working barrel, which is the first portion of the pump to follow the tools. The drills of various sorts are all made in such a manner that they will pass down through the pipe, and no matter what the material, whether earth, sand or rock, they will excavate a hole large enough to receive the pipe through which they pass.

The outfit is provided with a double-acting force pump which forces water down through the outside pipe; this water comes back through the tools and the hollow rod on which they are carried, bringing up with it the drillings and discharging into a barrel, from which after settling, the water is used over again.

When a satisfactory stratum is reached, the tools are withdrawn and gauze strainer is first put down and fixed to the bottom of cylinder; then the valves are lowered to the bottom of the pump and set in the brass-lined working barrel; the plunger follows, connected, of course, with the pump at the surface by a rod; the pump stand is screwed to the top of the pipe and the well is ready to deliver its water. The average working capacity of these tools is from 50 to 125 feet per day, according to the character of the digging. It is not an uncommon thing to start in the morning and leave a finished and complete well 75 feet deep at night.

These tools are now imported by the Pacific Manufacturing Co. at 575 Mission street, San Francisco, Cal., the owners and builders of a very prominent windmill.

As will be seen, the machine is run by horsepower and is automatic in its action. We cannot close without calling attention to the fact that by using wells of this kind all surface impurities are avoided, and there is no danger of any small surface animals or even children falling into the well.

When the valves become worn out they can be withdrawn and new ones put in by simply taking off the standard from the top of the well. Thus this well, so to speak, casing and pump are all one construction and machine.

P. A. BUELL & CO.

Enterprise Planing Mill

DOORS—WINDOWS—BLINDS
MOLDINGS
BRACKETS—TRIMMINGS
SCREENS—SHUTTERS
TANKS & BOXES.

457 to 469 CENTER ST.
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AUSTIN BROTHERS,

IMPORTERS OF

HARDWARE, IRON AND STEEL,

Iron Pipe and Fittings,

Bar and Sheet Iron, Carriage, Hardware, Blacksmith
Tools and Supplies.**LEATHER and RUBBER BELTING,**

PACKING AND HOSE,

Electrical Supplies.**310 and 312 MAIN STREET,**

Corner American,

STOCKTON, CAL.**STOCKTON MILLING CO.,**

PROPRIETORS OF

CROWN FLOURING MILLS,

MANUFACTURERS OF

Patent Roller Flour,**NEW PROCESS.**

Cor. Levee and Commerce Streets,

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San Francisco Office:

203 California Street, (Up-Stairs).**GRANGERS' UNION,****STOCKTON, CAL.,**

DEALERS IN

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Galvanized Wire Netting and Barbed Wire.

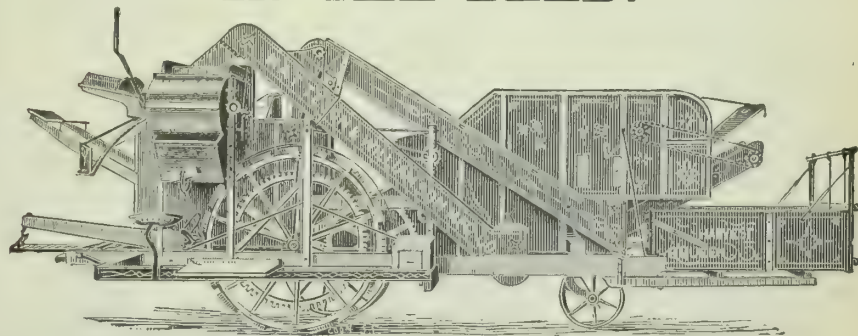
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The Most Successful Wide-Cut Mower Ever Made.

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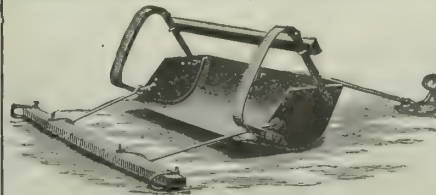
The Best Gang Plow on Earth.

Acme and Corbin Harrows, Hodges' Haines' Headers
and Mitchell Wagons.**THE "HARVEST QUEEN"
IN THE LEAD!****The Queen Leading for 1889**

IT IS SUPERIOR TO EVERY THING OF ITS CLASS.

Its Record is the Best of any now before the public.

Send for Circulars and Testimonials to

MATTESON & WILLIAMSON M'FG CO., Stockton, Cal.**LISSENDEN-ORTEOUS
IMPROVED SCRAPER,**
MANUFACTURED BY
GEORGE LISSENDEN, Stockton, Cal.**For Railroad Work, Irrigation Ditches,
Levee Building, Leveling Land,
Road Making.**This implement will take up and carry its load to any
desired distance, carrying 15 to 20 cubic feet, according
to dirt. It will distribute the dirt evenly, or deposit its
load in bulk, as desired. It will do the work of Scraper,
Grader and Carrier. Can be used with two or four
horses, although best results obtained with four horses.
ONE MAN ONLY required to handle this Scraper. Address.**GEORGE LISSENDEN,
Agricultural Works, Stockton Cal.****Galvanized Hexagonal Netting.
Silver Finish Brand.**FOR
POULTRY &
Rabbit-Proof
Fencing
CATTLE
AND
DIVISION
FENCES.
BOTTOM PRICES
By the BALE and in
CAR-LOAD LOTS.
Send for
ILLUSTRATED
CIRCULAR
and
PRICE LIST to**GEO. B. BAYLEY,
210 & 212 Davis St., SAN FRANCISCO.****BEST TREE WASH.****"Greenbank" 98 degrees POWDERED CAUS-
TIC SODA (tests 99.8-10 per cent) recommended by
the highest authorities in the State. Also Common
Caustic Soda and Potash, etc., for sale by****T. W. JACKSON & CO.,
Manufacturers' Agents,
104 Market St. and 8 California St., S. F.**

Fresno and Vicinity.

(Written for the Rural Press by J. C. H.)

That portion of the San Joaquin valley in the county of Fresno was considered, until recent years, an arid plain of but little value, except for grazing. A few sagacious, patient and experienced men in developing this Pacific Coast, undertook, against much opposition and disadvantage, to bring an abundance of water that would moisten the arid soil and make this great valley a place for productive homes. The face of Nature has been changed and the city of Fresno in the geographical center of the State, with great mountains on each side of the valley, with Mt. Whitney looming up over all in the distance, is a city of solid brick buildings of finest architecture, and is termed the "Queen City" of California. To the casual observer it is a subject of inquiry how such large and extensive brick structures, with ornamental stone fronts (notable among them the Hughes hotel, costing \$160,000, and the First National Bank building), can be sustained—also how an inland city, away from water communication, can become such a large distributing point. The question is easily answered on examination of the surrounding country.

Last week Mr. Geo. E. Freeman, a successful farmer and prominent citizen of Fresno, took out a large party four-in-hand over the Chateau avenue now being constructed a distance of seven miles west from the limits of Fresno City. It is one of the grandest undertakings in the history of our State. The avenue is 140 feet wide with running water on each side of the roadbed, and it is to be planted on each side with palms, evergreen trees and tropical plants—a veritable park the whole distance. A Rural reporter who was one of the party counted 40 teams with Porteous scrapers, plows and backboards at work making a water level the entire distance of this avenue preparatory to planting out the ornamental plants and trees which were stacked close by. This avenue is laid out through a fertile section, and homes with vineyards and orchards and fruit trees of all kinds now in bearing can be seen about one-third of the length of the avenue. The party returned by the county road near the line of the proposed Page & Wilbur R. R. There is a large ditch running brimful of water alongside of the road which passes 20 and 40 acre farms and fields of alfalfa, while in the distance can be seen great rows of Carolina poplar trees in every direction. This mammoth enterprise, planned by Mr. M. Theodore Kearney, promises to be the most noted boulevard in this State. The proposed Chateau grounds now laid out, with buildings to be erected and accessories, will take five years to complete.

This whole section can be irrigated by water taken from Kings river, and ditches cross the Chateau avenue every one-fourth of a mile.

During the day our reporter visited the section south from Fresno and through Fresno Colony, containing 5000 acres, which has been divided into 20 and 40 acre lots, set with fruit trees or vines and containing neat cottages, ornamental grounds and evergreen hedges for inclosures.

Southeast of the city of Fresno are some large vineyards and wineries that compare favorably with any in the State, and said to be the largest in the world. In a circuit of 30 miles' ride out of Fresno city to the west and south there is wealth, luxurious homes and productiveness in quantity and quality of fruit, raisin grapevines and alfalfa-fields that excels in many respects any portion of our State. This system of farming around the city of Fresno has made it the "Queen City" of California.

The people of this vicinity have an abiding faith in the growth and permanency of this section as one of the best in the State. Their trials and struggles in the years of experiment and development have united and knit them together as a community, and in all enterprises for the common weal there is a unity of purpose seldom seen in the affairs of local or county government.

The liberal policy adopted by large landholders to those who would purchase land in this section for occupation has been one of the principal factors in the rapid development of Fresno county. All of the colonies that now represent so much wealth and prosperity have passed through an ordeal incident to pioneer life, requiring faith, tenacity and patience to wait for orchards or vineyards to reach bearing age. It is gratifying to know that the same course is the rule among a goodly number of large holders of land who are subdividing great tracts for homes. Notable among these at the present time are Thos. E. Hughes, proprietor of the Hughes hotel, Messrs. Vincent, Chittenden and Cole, who are placing what is known as the Jefferson colony, situated 10 miles northeast from the city of Fresno, and Geo. E. Freeman, ex-secretary of the Board of Trade.

Improvements of the most substantial character are being made in Fresno; old lumber houses are up on wheels passing to the outside and four story fire proof buildings going up in their places. It is confidently expected by those who are in a position to speak authoritatively that there will be one or more competing lines of railroads and a local road to the Sierra Nevada mountains during the year 1890 and that Fresno will become a railroad center.

The great racing event of the year will be held here to contend for the \$20,000 purse that has been offered. In this connection it is meet and proper to note the fact that the Fresno

race-track with its environment, accessories, ornamental grounds, artistic clubhouse and management, has been commended by horsemen as the best in the State, and one veteran turfman lately from the East pronounced them the most attractive grounds that he has seen in the United States.

It is estimated that only one acre in 20 in this valley, which is over 50 miles wide, has been put under a high state of cultivation. There are great tracts of fertile land with right of water for irrigating on the market at prices that seem to be reasonable considering the value of products and liberal terms offered to purchasers. It is generally estimated by those who have had facilities to gain information by comparison and experience that 50 acres in fruit vines and alfalfa, with water for irrigating purposes, will yield a larger net profit than 500 acres for pasture and growing grain without water. We shall watch with interest and make record of the growth and development of this favored section.

Stockton Business College and Normal Institute.

Without making any criticisms on our public schools, it is generally conceded that our private institutions, and especially our business colleges, give the most reliable education. The Institute of the city of Stockton, owned and conducted by Messrs. Trask & Ramsey, is one of the largest and most noted for its superior management and thorough education given of any one on the Pacific Coast. They employ the best teachers, pay large salaries, and have light, airy and commodious rooms. The entire building, as shown in the cut, with a large



STOCKTON BUSINESS COLLEGE.

building adjoining, making over 70 rooms, are for the uses and purposes of the Stockton Business College and Normal Institute. Although the educational status is very high, the charges are extremely low. It has become a well-known

the able management of Sharp Bros. (who also conduct the hotel at Paso Robles) has deservedly gained a high reputation for its service. A professional chef with his corps of colored waiters provides meals that are not excelled



YOSEMITE HOUSE, STOCKTON.

fact that graduates from this school, either in the business or normal departments, have maintained and secured the most responsible positions and excellent standard in scholarship. We have before us the highest recommendations and unqualified indorsement by the prominent citizens of Stockton of this school. Any one wishing information on this subject will receive a catalogue on application which contains a full description of course of study and management.

A BIG SALE.—The Silver State learns from reliable sources that Todhunter & Devine have sold their ranches and stock in Oregon to Miller & Lux and Mason, for about \$1,000,000.

A FILIBUSTERING SCHEME to colonize peninsular California in such force as to render an annexation feasible is one of the latest excitements.

DANCING AT EIGHTY-FIVE.

The island of Nantucket is off the track of the modern world. The people and their customs are very unlike those in any other part of the world—the "off island part," as the Nantucketers are wont to call it.

Old-fashioned customs and habits prevail. They know but little about the new-fangled manners and methods of modern social life. They follow the beaten paths of a century ago, live simple, thrifty, laborious lives, and furnish little business for the doctors.

They thrive financially and physically. A visitor at an evening gathering on the island, not long since, tells how one lady, aged 91, presided at the piano, and another, aged 85, danced. "And you may take my word for it," adds the visitor, "that the dancing was sure-enough dancing, if one might judge from the lady's snapping eyes, nervous speech and decisive character."

Locality and climate would seem to have comparatively little effect on health and longevity if people lived simply, as nature dictates, and when ailing built up with nature's simple remedies, like Warner's Log Cabin Sarsaparilla, instead of pulling down the system by using poisonous mineral drugs.

People who hasten to the physician every time they have a headache, or experience any of the minor evidences of nature's sure revolt against disobedience of her laws, will not be found dancing at 85. The mineral poisons of the apothecary lead to early physical decay.

The long-lived, rugged Nantucketers, who enjoy life's pleasures when octogenarians, illustrate what the "off-island" portion of the world may experience if they live by nature's law and use old-fashioned log-cabin remedies of roots and herbs for the ordinary ills that flesh is heir to.

The Yosemite House.

This house is first-class in every respect, and

SHEEP MEN, ATTENTION!



ADMINISTRATOR'S SALE

By order of Probate Court, in the matter of the Estate of JAMES ROBERTS, Deceased.

I will sell at private sale to the highest bidder, for cash, on or after May 1, 1889, at the Ranch in Irvington, or at my office in Oakland, 946 Broadway, Alameda Co., Cal., the entire flock of Thoroughbred French Merino Sheep, consisting of 280 (Two hundred and eighty) Ewes, 79 (seventy-nine) Bucks, and 180 (one hundred and eighty) Lambs. These Sheep are the set of the original flock imported by Robert Blacow of Centerville. Mr. Roberts, as foreman, having charge of the flock for several years prior to Mr. Blacow's death, after which he became the owner of the entire flock, which he has kept purely for stock purposes.

All interested in Thoroughbred Sheep should be familiar with this flock, which has become famous under the care and management of Mr. Roberts; always receiving first premiums, having been sold to Europe, South America and all parts of the United States; individual members having repeatedly sold for from \$500 (five hundred) to \$1500 (fifteen hundred) each. Sheep Men should seize this opportunity to secure some, as they must be sold to settle up the Estate. Address, JAMES STANLEY, Administrator Estate J. Roberts, Deceased, Mission San Jose, or 946 Broadway, Room 17, Oak and, Cal.

TO FRUIT GROWERS.

PROTECT YOUR TREES

AGAINST

Sunburn, Rabbits, Borers and other Pests.

THE EXCELSIOR FRUIT TREE PROTECTOR

Is not only a protection against Sunburn, but being chemically prepared, is proof against Rabbits, Borers, etc., and is approved and being used by all orchardists who have examined its merits.

Buy no other until you have seen the EXCELSIOR. Its simplicity of fastening will recommend it, as it requires one-third less time to adjust it than any other make.

Price for Protection from Sunburn, \$1 per 100.

Price for Protection against Sunburn, Rabbits and other Pests, \$2 per 100.

BONESTELL & CO., Agents,

401 & 403 Sansome St., San Francisco.

SEND FOR SAMPLES.

PROTECT YOUR TREES

FROM

Sunburn, Borer, Rabbits, etc.

One Cent per Tree!

Hay's Tree Stem Envelope

(Patent applied for.)

WATERPROOF! ADJUSTABLE!

Easy, economical and expeditious.

Saves time, trouble and expense.

Waterproof Paper, 7x15 inches, \$1 per 100.

Tarred Felt, vermin and waterproof, good for 3 years,

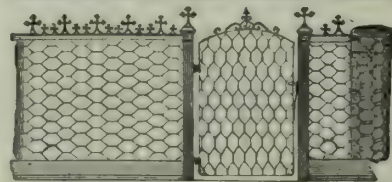
7x16 inches, \$2 per 100. Special sizes made to order.

Send for samples. Orders promptly filled by

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SEDGWICK STEEL WIRE FENCE



Best Fences and Gates for all purposes. Free Catalogue giving full particulars and prices.

Ask Hardware Dealers, or address, mentioning this paper, SEDGWICK BROS., Richmond, Ind.

RIVERSIDE NURSERIES AND FRUIT FARM.

LODI, CAL.

Jas. A. Anderson, - - - Manager.

APRIL 1, 1889.

I have now growing 500,000 Seedling Almonds, Peach, Plum, Pear, etc., started from choicest Natural Seeds, and am prepared to take orders to June Bud for fall and winter delivery. Fruit Trees of all kinds, including I. X. L., Nonpareil and Ne Plus Ultra Almonds, French Prunes, Prune d'Ente and Japan Plums, Royal Blenheim and Newcastle Early Apricots, leading varieties of choice Peaches. Bartlett Pears, Cherries, etc. Varieties guaranteed as represented.

My nursery lands are new and produce fine growth in body and fibrous roots, to which my patrons all attest. For particulars and prices, address

JAS. A. ANDERSON,

Lodi, Cal.

FOR SALE AT A BARGAIN.

Holstein-Friesians.

One Imported Cow, one two year-old Bull, one Yearling Heifer, one Bull calf. Registered Stock and well-bred. Also pure-bred Poultry.

T. C. STARR,

Santa Rosa, Cal.

HOLSTEIN-FRIESIAN CATTLE.

Young Bulls and Heifers of celebrated herd of Holstein-Friesian Cattle belonging to J. H. WHITE of Lakeville, Sonoma County, can be bought at moderate cost.

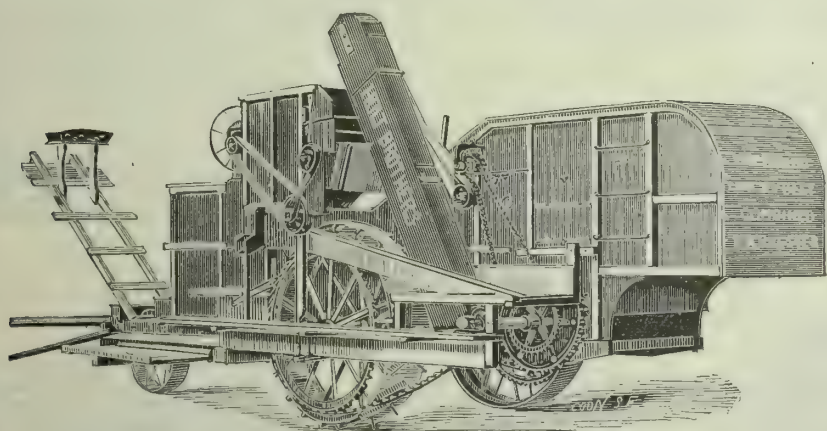
Parties wishing pure-bred Stock can make selections at popular prices; also, DUROC HOGS, full blood, at Lakeville Rancho,

J. H. WHITE,

IMPORTER AND BREEDER OF REGISTERED STOCK,
Lakeville, Sonoma Co., Cal.

(Correspondence Solicited.)

HOLT BROTHERS' Improved Combined Harvester.



For Efficiency, Durability, Light Draft and Fine Work it is far superior to any other harvester of the present day.

Those contemplating buying are invited to visit our manufactory and see for themselves. Circulars and testimonials sent on application to

STOCKTON WHEEL CO., or, HOLT BROTHERS.
Stockton, Cal. 30 & 32 Main St. S. F.

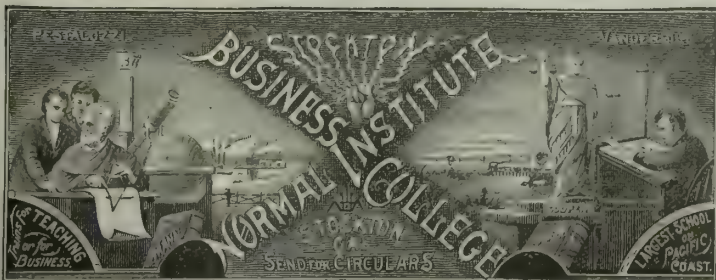
SIXTEEN EXPERIENCED TEACHERS,

Elegant Building, 70 Nicely Furnished Rooms, Healthy Location, Excellent Discipline, Fully up to the Time in its Methods, Large Attendance.

Board, Room and Tuition for Full Business Course, including all branches taught in first-class Business Colleges, for term of 52 weeks, \$18.75 per month.

Shorthand and Typewriting for six months, with privilege of 25 other classes. Board, Room and Tuition, \$21.30 per month.

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Send us your name and you will receive our Catalogue and a specimen of penmanship free. Address: TRASK & RAMSEY, Stockton, Cal.

P. A. BUELL & CO., ENTERPRISE PLANING MILL,

Stockton, Cal.

We Build Everything that can be Made of Wood.

ALL MATERIALS KILN-DRIED.

We will Contract to do Work in any Part of the State.

WINDMILL DEPARTMENT.

OUR

Aermotor Pumping Mill

Is sold on a Written Guarantee that it will work with less wind, with less wear and tear, and last longer than any Mill in the market. By the use of our Tilting Tower Irons, the Wheel can be lowered to the ground, for oiling, by a child. Send for Circulars and Estimates.



We can Make What you Want, and you can Save Money by Dealing with us.

P. A. BUELL & CO., Stockton, Cal.

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EVERY TANK WARRANTED.



WINE TANKS A SPECIALTY.

CABINET DEPARTMENT.

We are now making a Specialty of

Fine Mantels, Side Boards, Bars, Store Counters,

OFFICE AND BANK FIXTURES,

And Fine House Finish,

IN BOTH HARD AND SOFT WOOD.

PLANO RUSTLER.

Changeable Speed.

A "fast motion" and a "slow motion." It will be found the simplest, most durable and most effective device for obtaining a fast or slow motion for the knives, ever put on a mower.

The Most Perfect Floating Bar and Tilting Lever.

One Lever performs the important duties of tilting the guards and also of raising and lowering the cutting apparatus.



A Coupling Frame, complete, with only one piece of iron.

No bolts or joints to bother.

Never Chokes or Clogs in any Grass.

For PERFECTION, SIMPLICITY, DURABILITY and a CHEAP MOWER They Have No Equal.

Sizes, 4 and 5-foot Cut.

Write for Catalogue and Prices.

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PACIFIC COAST AGENTS, 31 MARKET STREET, San Francisco.

NEVADA WAREHOUSE & DOCK COMPANY,

Warehouse and Docks, PORT COSTA, CAL. Office, 412 PINE ST., San Francisco.

STORAGE CAPACITY, 100,000 TONS.

These Warehouses are the largest on the Pacific Coast, and are furnished with the latest improvements for the rapid handling and storage of Grain. A Mill attached, supplied with the best and newest machinery for cleaning foul and smutty wheat.

Storage of Grain per Season not to exceed	\$1 00 per Ton.
Storage of Grain per Month	25 "
Grading Wheat	50 "
Cleaning Wheat	75 "
Smutting Wheat	1 00 "

Weighing into Warehouse, Free.

OPTION AND STORAGE LOTS DELIVERED IN FULL.

W. F. BERRY, Secretary.

JOHN ROSENFELD, President.

CREAMERY. Parties going into this business can correspond to advantage with one familiar with details of organizing company, building and equipping creamery, managing accounts, cream gathering, and the making and marketing of butter. Iowa and Cal. references. Address F. S. C., Box 2517, San Francisco.

INSECTS NAMED by Eberhart's Key. Only one published. Arranged like a key to plants. Illustrated, 25c. How to Collect and Mount Insects (illustrated), 5 cents. POPULAR PUB. CO., Chicago, Illinois.

H. C. Shaw Plow Works.

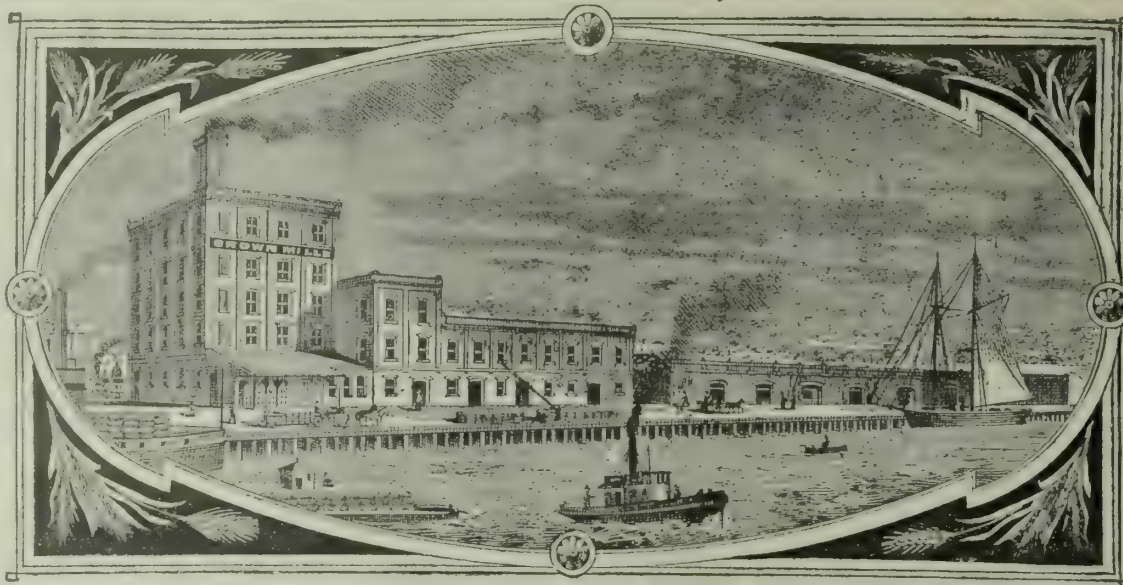
The attractive engraving of the H. C. Shaw Plow Works is a fitting tribute to one of the great industrial plants of the city of Stockton. As shown in the picture, Mr. H. C. Shaw, the proprietor and pioneer in successfully developing the gang plow, stands at the right, while his employees are seen at the left. The vast fertile plains of the great interior basin of California have been transformed from an unproductive area to profitable grain-fields by the use of the gang plow.

In the early history of our State, gang plows were improvised by bolting single plows together or placing them in frames of two or three gangs. Mr. Shaw commenced business in Stockton 22 years ago as a dealer in agricultural implements. The importance of the gang plow engaged his attention, and his best efforts were bent on perfecting this implement. Each year an improvement was made, usually at the suggestion of the farmer or plowman, whose advice and counsel were sought by Mr. Shaw. The business grew beyond any conception of the founder, and the excellence of the Stockton gang plow gained a State reputation.

During late years the demand has been so large for the Stockton gang plow that over 100 tons of the best steel has been required each season, and they are now used in all the great valleys on the Pacific Coast and the plantations of Central America. Although this leading agricultural house has given special attention to the manufacture of the Stockton gang plow, it has kept abreast of the times in manufacturing and importing all varieties of agricultural implements manufactured expressly for the California farmers, and carries an extensive stock of farm wagons, carriages, buggies, carts, etc., which are kept in its repository, 40x160 feet, opposite. This faithful picture represents one of the largest and oldest agricultural plants of California, is intimately connected with the growth and development of a system of farming that has given our State a world-wide reputation, and will in some degree perpetuate the memory of the sagacious and enterprising proprietor, who has been and still is a benefactor to the ranchmen and farmers. Parties interested in this line of goods would do well to send for illustrated catalogue containing cuts of various agricultural implements and styles of carriages.

We reproduce a notice published in the Pacific Rural Press, May 28, 1887:

The pioneers who were first impressed with the immense resources of California as a grain-producing State fully realized that, with high-priced labor and a long dry season, agricultural implements must be made that would meet the necessities of the time and that were adapted to a new system of farming. The city of Stockton, situated at the head of navigation and in the heart of the great San Joaquin valley, naturally became a distributing point for agricultural supplies and implements. The enterprising merchants and mechanics anticipated the wants of the farmer, and by their advice and suggestions undertook the task of making a plow that would cultivate the virgin soil thoroughly, expeditiously and economically.



CROWN FLOURING MILLS, STOCKTON, CAL.

Experiments, trials and disappointments followed in turn only to be repeated each year. In 1861 and 1862 the old walking cast plow, fastened in two or three gangs, was followed by the Knox patent sulky cultivator, or, as it was then termed, "Yankee Fiddle," which did a good deal of "scratching" and but little plowing. In 1864, Mr. Robert Baxter, of Stockton, was the first, we believe, to use the reversible mold-board in gang plows, which had been used in Virginia 35 years ago in single plows. Mr. H. C. Shaw, one of the oldest dealers in agricultural implements of Stockton, seeing the necessities of the farmer in cultivating the vast fields of the San Joaquin valley having various kinds of soil, undertook to invent a gang plow that would suit the wants of this new system of cultivation. His policy from the first was to follow the suggestions and advice of practical and intelligent farmers in making and improving his Stockton gang plow. This system has been followed for 20 years, and during that time some new and distinct improvement has been made each year, and the most of them by the advice and suggestions of large grain-raisers, who personally supervise the plowing and seeding of their own land. The "H. C. Shaw" Stockton gang plow is made with three, four or five 10 inch plows, or six 8 inch plows, to which a seeder can be attached in front as a drill or behind as a seeder, with the harrow following. Thus equipped, one man with eight horses can plow, seed and harrow eight acres a day. In 1872, in a field test, the H. C. Shaw Stockton gang plow took the first premium, and since that time in this class has repeated its victory in every trial down to 1883. At the late San Joaquin District Fair it received a special premium. Their

long use and the growing demand has made them a noted and familiar gang plow all over the Pacific Coast. Mr. J. W. Jones, one of the largest grain-raisers in this State, has experimented with all kinds, and the result of his experience is that in adaptability to the different soils, whether adobe, loam or sandy soil, economy and thorough cultivation, the four-gang 10-inch Stockton plow, with seeders attached, is the best, and of which he has 100 in use on his different ranches.

Powell's Patent Derrick and Nets.

Ten years ago Mr. Thomas Powell of Stockton invented and patented a derrick and net for stacking hay, grain and straw. It has been in constant use on the Pacific Coast during all this time, with an increased demand each year.

The H. C. Shaw Plow Works of Stockton manufacture this derrick and net, and a circular and price list will be sent upon application. It has the reputation of one of the most efficient and best working derricks and nets in this State.

The Stockton Milling Co.

One of the prominent institutions of California is the Crown Flouring-Mills, located at the city of Stockton. It is run by a corporation known as the Stockton Milling Co., with a capital of \$300,000. This expensive and substantial structure was built in 1882, of brick, and located immediately on the water-front. Its capacity is 1500 barrels per day, and it usually runs night and day and furnishes employment to over 65 men. One of the most unique and distinguished features of this great plant is an artesian flowing well, the water of

which is so strongly impregnated with gas that by the use of an inverted reservoir placed over the well, enough gas is secured to run the engines and supply light for the mill, using only about one-fourth of the gas that escapes. Mr. J. M. Welsh, ex-Mayor of Stockton, who is an acknowledged authority on milling business, is the general manager. The flour made stands A No. 1, and having the fine wheat product of the San Joaquin valley, it has gained a high reputation for its superior quality. The office of the company is located at 319 California St., San Francisco.

Improved Davis Windmill.

The history of windmills in the great interior basin of California known as the San Joaquin valley, is, in a large measure, the record of the Davis windmill, improved. For over 35 years they have been in use, both for irrigating purposes in this dry climate and domestic uses. Their mechanical construction is such that there is but little wear, and they are made strong, compact, durable and capable of withstanding the winter storms. The men who have constructed this windmill have been known as thorough mechanics and inventors during all these years, and the system of regulating the wind, or, in other words, making the windmill adapt itself to the current of wind whether strong or light, is of such high degree that it may be said to be a "perfect regulation."

The present proprietor, Mr. R. F. Wilson, is a skilled and practical mechanic, with large experience in constructing windmills and apparatus for the care and storage of water. The keen competition in the city of Stockton, the center of windmill traffic of the State, has stimulated all manufacturers to a high degree of excellence. It is but a just tribute to the Improved Davis to say that it has maintained a front rank during all these years, and from our observation and the opinion of the prominent ranchmen of the interior of our State, it is one of the best, most economical, and most practical windmills in the United States.

Stockton and S. F. River Express Co.

During the last 11 years the Stockton and San Francisco River Express Co. have held a prominent position as common carriers and commission merchants. At their inception they confined themselves to the river trade, but they now ship to all parts of the world. They have wagons running to all parts of the city, and ship goods at less than one half the rates charged by railroad. The proprietors are reliable and trustworthy gentlemen.

Pacific Agricultural Works.

Mr. Geo. Lissenden, proprietor of the Pacific Agricultural Works, makes a specialty of manufacturing the Improved Porteous Soraper, one of the most useful and efficient implements that seems just suited for our State. His mechanical skill and inventive genius have been very beneficial to the farmers of the great San Joaquin Valley.

WATER-PIPE DISCHARGE.—In a paper read before the Royal Society (England), Henry Hennessy, F. R. S., says the maximum discharge of water through a pipe of circular section, when the head is due only to the inclination of the pipe, is not when the pipe is full of water, but when filled to about nineteen-twentieths of its diameter.



Lands For Sale and To Let.

M. OSTRANDER. H. J. OSTRANDER. F. G. OSTRANDER.

OSTRANDER & SONS, REAL ESTATE OFFICE

Garibaldi Building,

MERCED, CAL.

P. O. Box No. 7.

A RARE BARGAIN!

The undersigned offers for sale, on good terms, his CLOVERDALE DAIRY FARM of 500 acres, situated on Squirrel Creek, 2 miles west of Grass Valley. It is well watered by springs and has excellent irrigation facilities. commodious farm buildings, orchard of 160 trees and 6 acres of vineyard. A fine herd of Holstein, Ayrshire, Jersey, and Durham (thoroughbred and grade) cattle for sale with or without the ranch. Holstein and Ayrshire premium bulls on lowest terms, including "Tehama," which, on account of kinship to the herd, can no longer be used in breeding. A good dairy route is also included in this offer.

H. B. NICHOLS, Proprietor.

FOR \$5000.

A Ranch in El Dorado county, near Placerville, contains 160 acres, nearly all fenced in with a four-strand barbed wire fence, a good house of 11 rooms, hard finished, two brick chimneys, cut stone basement with cut stone steps, a good barn and stable, chicken house, work shop and other out-houses, a good well of water, one water ditch for the land, 1000 fruit trees, all in bearing, Peach, Apple, Fig and Cherries, 1000 Grapevines; 80 acres cleared and ready for the plow, all nearly level; about 25 acres woodland, pines, etc., all of which can be cleared; three cows and two calves. The Ranch is five miles from Coloma and nine miles from Placerville. The soil is a red loam, the house stands on the county road and the stage passes it twice every day. A span of horses, a new harness and wagon, plow, harrow and other farming utensils to be given with the Ranch. The Title, U. S. Patent. For further information address, "RANCH," Box 2361, San Francisco, or care of Illustrated Publishing Co., 220 Market St., S. F.

LAND TO RENT

On Exceedingly Liberal Terms.

The S. E. quarter of Sec. 13, T. 21, R. 23, and all of Sec. 15, T. 23, R. 24, in the artesian belt in Tulare county, will be rented at a nominal rent for winter sowing, if applied or soon. The greater part of this land is rich, level and all ready for the plow. Address L. E. Smith, Pixley, Tulare Co., Cal., or Ranch Owner, office RURAL PRESS San Francisco, Cal.

FOR SALE OR EXCHANGE.

Ranch of 200 acres on Coquille River, Coos County, Oregon; 40 acres bench land, 160 acres bottom, 80 acres under cultivation; 1 1/2 miles from Coquille City, one-half mile from steamer landing. An abundance of fine spring water on place. Price, \$4500 cash, or will exchange for California property in vicinity of San Francisco Bay. For further particulars apply to

H. GOETZ,
659 Olav St., San Francisco, Cal.

GRANGERS' BANK

OF CALIFORNIA,

SAN FRANCISCO, CAL.

INCORPORATED APRIL, 1874.



Authorized Capital.....\$1,000,000
Capital paid up in gold coin..... 624,160
Reserved Fund..... 40,000
Dividends paid to Stockholders.. 515,620

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and country produce a specialty.
Jan 1, 1888 A. MONTPELLIER, Manager.

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J. W. PENFIELD & SON
Willoughby, Ohio.
Stands Unrivalled.
Send for circular and prices.

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Real Estate Agents and Auctioneers,
10 MONTGOMERY STREET,
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57 SMALL FRUIT FARMS 57

OF 20 ACRES EACH,

— IN THE —

Winters Early Fruit Belt, At Auction,

By Order of MESSRS. McMAHAN & YOUNT,

Saturday, April 20, 1889.

This property is part of the McMahan and Yount Ranch, located at the base of the foothills about 4 1/2 miles northwest of the town of Winters, Yolo Co., Cal.

It may properly be called a part of the celebrated Pleasant Valley, which adjoins it on the south, where the fruit from the foothill orchards has achieved a far and wide-spread celebrity for its earliest and delicious flavor. Here foothill land is eagerly bought up whenever offered for sale, at from \$100 to \$150 per acre. The property we offer is in every respect as good, but as it is the first subdivision of a large holding heretofore devoted almost exclusively to stock-raising, the first sales of land will necessarily result in low prices, and buyers will reap the benefit of a

Heavy Increase in Values,

Within a brief period of time. It must not be inferred, however, that fruit-growing on this land is by any means an experiment. There is a small orchard of assorted fruit trees and a full-bearing orange tree, near the present dwelling, and purchasers can determine from these the adaptability of the soil, although the trees have been little cared for and scarcely ever cultivated.

All Tillable Land.

This property consists of small valleys surrounded by low-rolling hills, upon which there are oak and other trees in scattering groups. There are numerous sites for pretty homes and charming slopes for orchards and vineyards on these elevated places.

The Soil

Is a rich chocolate-colored loam, and has been pronounced by several of the leading fruit-growers in Vaca Valley especially adapted to the growing of peaches, apricots, almonds and oranges.

No Irrigation.

The rainfall in this section is from 24 to 27 inches; the heaviest being near the foothills. Such a thing as a failure of crops is therefore unknown. Excellent water for domestic purposes is obtained at a depth of about 25 feet.

A Delightful Excursion



Through the Vaca
Valley and Win-
ters Orchards.

Those who have visited this beautiful section will appreciate the pleasure of a day's excursion there. Those who have not been, should not fail to take advantage of the cheap rates of this excursion to spend a day in the country. We will run a special train from San Francisco, Saturday, April 20th, at 7 o'clock A. M., stopping only at Benicia, Elmira and Vacaville, (unless requested beforehand to stop elsewhere) at the following rates:

Round-Trip Tickets to WINTERS

FROM SAN FRANCISCO, OAKLAND AND BENICIA,

\$2.50.....TICKETS ONLY.....**\$2.50**

FROM ELMIRA AND VACAVILLE TO WINTERS,

75 cts......TICKETS ONLY.....**75 cts.**

TIME TABLE

LEAVE SAN FRANCISCO.....	7:00 A. M.	ARRIVE AT WINTERS.....	10:15 A. M.
" ELMIRA.....	9:40 A. M.	LEAVE WINTERS ABOUT.....	5:00 P. M.
" VACAVILLE.....	9:45 A. M.	ARRIVE AT SAN FRANCISCO ABOUT.....	8:30 P. M.

EASY TERMS.

TERMS OF SALE: Only one-third cash, balance in 2 and 3 years, with interest at the rate of 8 per cent per annum.

Remember the day, remember the hour, and bear in mind that we intend to sell you good fruit land at absolutely your own price.

A FREE COLLATION will be Served on the Grounds.
Vehicles from Winters to McMahan & Yount Ranch FREE.

For further particulars, apply to

McAFEE & BALDWIN,

Real Estate Agents and Auctioneers,
10 Montgomery St., San Francisco.

NEWHALL'S SONS & CO., Auctioneers.

225-227 Bush St., San Francisco.

Or McMAHAN & YOUNT, Bank of Winters, Winters, Yolo County, Cal.

Windmills and Pumps.

HORTON & KENNEDY'S
FAMOUS

ENTERPRISE

Self-Regulating

WINDMILL

Is recognized as the
BEST.

Always gives satisfaction. SIMPLE,
STRONG and DURABLE in all parts.
Solid Wrought iron Crank Shaft
with DOUBLE BEARINGS for the Crank
to work in, all turned and run in ad-
justable babbitted boxes.

Positively Self-Regulating.

With no coil springs, or springs of any kind. No little rods, joints, levers, or anything of the kind to get out of order, as such things do. Mills in use 6 to 12 years in good order now, that have never cost one cent for repairs. All genuine Enterprise Mills for the Pacific Coast trade come only through this agency, and none, whether of the old or latest pattern, are genuine except those bearing the "Enterprise Co." stamp. Look out for this, as inferior mills are being offered with testimonials applied to them which were given for ours. Prices to suit the times. Full particulars free. Best Pumps, Feed Mills, etc., kept in stock. Address,

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GENERAL OFFICE AND SUPPLIES (as always before),
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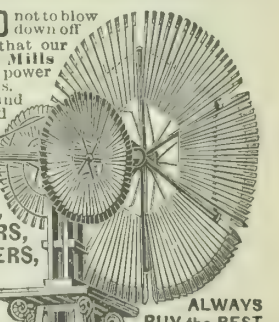
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Also of SUPERIOR DEEP-WELL PUMPS.

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down off
the tower, and that our
Geared Wind Mills
have double the power
of all other mills.
Mfrs. of Tanks, Wind
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Send for Catalogue
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Good AGENTS WANTED.
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UTILITY and ART

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Buy nothing else. Write for terms
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AGENTS WANTED!

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Insurance Company,
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Organized in 1861.

Losses Paid Since Organization.....\$2,841,945 00
Assets, January 1, 1889..... 843,163 70
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FOR SALE.

400 Redding Picholine Olive Trees,
From three to five feet high—stocky, thrifty, well rooted.
A bargain. Address Humphrey B. Pilkington
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The first money, 100 dollars of good to be, 100 dollars
permanently in savings and completed. All only 10 cents. Capital Card Co., Cincinnati, Ohio.

Educational.

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PREPARATORY, COMMERCIAL and ACADEMIC CLASSES.

References to parents of pupils who have entered the University from this school. Send for circular.

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Prepares Boys and Young Men

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Christmas Term opens Wednesday, Aug. 1st.

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A HOME SCHOOL

FOR BOYS AND YOUNG MEN

Desiring thorough preparation for College, University or Business. Location healthful, grounds ample, rooms large, well lighted, warmed and ventilated. Influences, moral and social, of the very best. Number of pupils limited.

Winter Term will begin January 2, 1889.

Address the principal, REV. SEWARD M. DODGE, B. A., Santa Rosa, Cal.

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Send for Circular.

E. P. HEALD, President.

C. S. HALEY, Secretary

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Send for our attractive list of Easter Carols, Easter Songs, Easter Anthems!

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The best and brightest is found in our SONG Harmony, (60 cts., \$6 doz.) for High Schools; our Song Manual, (30 cts., \$3 doz., 10 cts. \$4.20 doz., 50 cts. \$4.80 doz.) for Graded Schools.

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100 rousing good songs in *Ass. Hall's Temperance Rallying Songs*, (35 cts., \$3.50 doz.)

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The sweetest and purest in Praise in Song. (40 cts., \$4.20 doz.)

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College Songs, (50 cts.) College Songs for Banjo, (800) for Guitar, (\$1.00) Jubilee and Plantation Songs, (60 cts.) Good Old Songs We Used to Sing, (\$1.00.)

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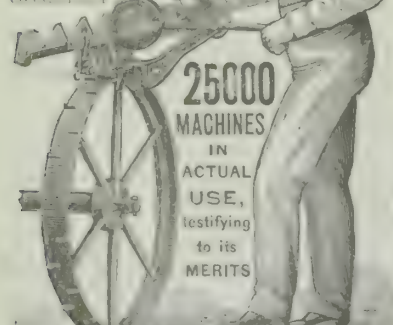
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Patented May 1, 1888. This grinder is the best and most reliable of its kind. It is made of the best material and is of simple construction. It is easy to use and will grind any kind of grain. It is sold at a low price and is a great saving to the farmer. It is made by the Dutton Manufacturing Corporation, 140 Water St., N. Y.



FOR SALE.

The threshing outfit of the late well-known thresher, Hugh C. Jones. The separator is fitted with Jones' improvement. For particulars call or address

MRS. HATTIE S. JONES,

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"THE PEERLESS SEASIDE RESORT."

WILL HAVE MORE ATTRACTIONS THAN EVER BEFORE.

{ THE SEASON OF
1889.

THIS DELIGHTFUL RETREAT IS A LESS BRILLIANT NEIGHBOR of Monterey than the Hotel del Monte, but none the less attractive in many respects. It is to the Pacific Coast what Nantucket, Martha's Vineyard and Ocean Grove are to the Atlantic seashore, except that the Pacific Grove Retreat has as equable a temperature as Monterey itself, and is KEPT OPEN ALL THE YEAR ROUND. In loveliness of location, Pacific Grove cannot be excelled, its graceful pines extending to the water's edge. As a healthful place of resort, it is not surpassed by any localities in the world. Feeling the need of a summer resort, free from the follies and vicious

influences of more pretentious, fashionable places, some good Christian people, a few years ago, conceived the idea of fixing upon this spot as likely to combine all the requirements for camping and bathing purposes. As its adaptability and beauty became better known and appreciated, its popularity increased, and now thousands throng thither each summer; and many permanent and temporary, neat, comfortable dwellings are to be found there, and it has assumed the proportions of a flourishing village. During the summer season the new and elegant Hotel "El Carmelo" furnishes delightful homelike accommodations at reasonable rates.

For further information, address, C. L. BOYERS, Superintendent.

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Afford More Profit than any Other Business for the Capital Invested.

The Most Successful Machines Made.

Any One Can Manage Them.

A Large Illustrated Circular and Pamphlet,

"Practical Artificial Rearing of Chicks,"

Will be mailed FREE to any one sending us his name and address. Contains information valuable to any one who keeps fowls.

PETALUMA INCUBATOR COMPANY,

Petaluma, California.

MENTION THIS PAPER.)

Buy the FISH BROTHERS

FARM AND SPRING



And You will Have the BEST.

THE GIANT POWDER COMPANY.

PATENT OWNERS OF

NOBEL'S DYNAMITE,
NOBEL'S EXPLOSIVE GELATINE,
NOBEL'S GELATINE-DYNAMITE,
Best and Strongest Explosives in the World.

JUDSON POWDER,

The Only Reliable and Efficient Powder
For Stump and Bank Blasting. From 5 to 20
pounds blows any Stump, Tree or Root clear
out of ground at less cost than grubbing.
Railroaders and Farmers use no other.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing
a second-grade, inferior to Judson.

BANDMANN, NIELSEN & CO, General Agents, San Francisco.

CHICKERING PIANOS,
CONOVER BROS. PIANOS,
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SOLE AGENTS,

723 Market Street, History Building,
SAN FRANCISCO, CAL.Orders for EVERYTHING in the MUSIC LINE promptly
attended to.75 CARDS. 25 May 100 Home Cards, 25 Smart Cards, 25 25-
Garden Cards, and 25 25-
All only 50 cents. Boston Card Works, Boston, Mass. U.S.A.

At Easter.

[Written for the Rural Press by FANNIE ISABEL SHERRICK.]

At Easter, when the lilies bloom,
There comes sweet peace to me,
And all the world is glad with light
That sweeps the land and sea.
The precious flowers bring us love,
The sweetest gift of God,
And every soul must feel the joy
That springs from blossoming sod.

Oh! world-worn heart, thy way is clear,
Thou' thin eyes see it not;
Christ comes again at Easter-tide
To bless our human lot.
The golden poppies breathe His name
In splendor on the hills,
And every flower that upward springs
With His dear love-light fills.

San Francisco, April 13.

The Horticulturists at San Diego.

Telegrams speak enthusiastically of the Fruit-Growers' Convention in National City which is in progress as we go to press, and of which we shall have full reports in coming issues.

Previous to the assembling of the convention, the State Board of Horticulture met, all members being present except A. Block of Santa Clara, who was unavoidably detained at home.

The following officers were elected for the ensuing year: President, Ellwood Cooper of Santa Barbara; vice-president, N. R. Peck of Penryn; secretary and ex-officio chief horticultural officer, B. M. LeLong of San Francisco; auditor, J. L. Mosher of San Francisco; treasurer, Sol. Runyan of Courtland.

Tuolumne—Supplemental Note.

The following additional note on the orchards of Tuolumne was received too late to take its proper place with the letter of Mr. Schaeffle on page 370 of this issue:

Mountain Pass is justly credited with the best fruit ranches in the county. The orchard

California Products at Chicago.

CHICAGO, April 17.—California Dried Fruits—The only change in the California dried-fruit market is that prunes are moving a little more freely, but have not changed in price. Raisins also meet with moderate sale, but everything else in this line rules dull. In values no changes have occurred, and they rule as below:

Apricots—Evaporated, bleached, bxs, $\frac{1}{2}$ lb, 10@10 $\frac{1}{2}$ c; do, sun-dried, according to quality, 6@8c; do, sun-dried, in sacks, 6@8c. Peaches—Evaporated, bleached, unpeeled, boxes, 8 $\frac{1}{2}$ @9 $\frac{1}{2}$ c; do, sun-dried, bleached, unpeeled, sks, 6 $\frac{1}{2}$ @7 $\frac{1}{2}$ c; do, sun-dried, unbleached, unpeeled, sks, 5 $\frac{1}{2}$ @6c; do, sun-dried, peeled, bxs, 10@12c; do, do, sks, 10@10 $\frac{1}{2}$ c; do, evaporated, peeled, bxs, 12@13c. Nectarines—White, evaporated, bleached, bxs, 7@8c; do, sun-dried, bleached, sks, 6@7c; do, red, evaporated, bleached, bxs, 6@6 $\frac{1}{2}$ c; do, red, sun-dried, bleached, sks, 4@5c. Plums—New, pitted, sacks, 6 $\frac{1}{2}$ @7c; new, unpitted, sacks, 4@7c. Prunes, according to size, in sks, and dry, 5@8c; do, do, damp, 3@4c; do, Silver, 10@12 $\frac{1}{2}$ c; do, Hungarian, sks, 3@5c. Raisins—Loose Muscatels, new, $\frac{1}{2}$ box, \$1.15@1.25; do, London layers, new, \$1.65@2.25.

Oranges—Choice stock ruled from Floridas in small supply. Californias, choice sizes and fine fruit are fair sale. Other lines are also doing nicely. California Riverside, $\frac{1}{2}$ box, \$3@3.25; do, undesirable sizes, \$2.50@2.75; California San Gabriel, $\frac{1}{2}$ box, \$2@2.50; California Duarte, \$2@2.50; California Los Angeles, \$2@2.50; do, do, bad order, heated, \$1@1.50; California Navels, $\frac{1}{2}$ box, \$2.75@3.50; do (Washingtons), \$4@4.50.

Hops rule steady at late quotations. Supply only moderate, choice hops being in fact scarce. The demand is mainly for small lots, with prices steady, as follows: Washington Territory best, 23@24c $\frac{1}{2}$ lb; good to prime, Pacific Coast, 18@22c.

Beans fail to exhibit anything new. Sellers report trade slow. Arrivals of beans are small, but jobbers appear to be supplied, and the demand for this season is light. California lima beans, $\frac{1}{2}$ lb, 5 $\frac{1}{2}$ c.

WE wish to call attention to the advertisement, on another page, of the administrator's sale of the celebrated flock of thoroughbred merino sheep. This flock was imported from France by Mr. Patterson of Utica, N. Y., and brought to this State by Robert Blacow, of Centreville, and for twenty years has been under the care of James Roberts as manager and owner. The death of the latter will no



COMMERCIAL HOTEL, STOCKTON.—See page 380.

of Mr. J. Neighbor is a credit to its owner and a blooming advertisement of the section's capacity for fruit. So also are the fine orchards and vineyards of Mr. J. H. Quinn and J. Goodwin. That the other sections, where fruit is now grown, can be made to do equally as well is undoubted. Once the county is given an outlet by rail, the fruit industry must take a front rank; then the same attention will be given to fruits that is now bestowed upon the county's numerous profitable mines, when the yellow stream of golden fruit will far excel in value that of the present golden nuggets.

Moore & Smith Lumber Co.

The great lumber interests of Stockton are largely represented by this firm. Their yards in this city cover several blocks, and including posts and fencing material, over 30,000,000 feet of lumber are sold from their yards yearly. The advantages of water communication and floating great barges up the San Joaquin river makes this the chief distributing-point in the San Joaquin valley for all classes of lumber. Their Port Discovery Mills in Washington Territory have a capacity of 175,000 feet every 10 hours.

Jefferson Colony.

The tract of land containing 5000 acres and known as the Jefferson Colony, is situated 10 miles northeast of the city of Fresno. Three lines of proposed railroad have been surveyed through this tract, and the substantial advantages claimed for this section as an investment should attract purchasers and home-seekers. Messrs. Vincent, Chittenden & Cole, reliable real-estate brokers of Fresno, have the management of this property.

SPRAYING APPARATUS.—Rumsey & Co. of Seneca Falls, N. Y., send us their neat catalogue and price-list of spraying pumps, hydraulic rams, etc., with an illustrated introduction on "Our Insect Foes." The pamphlet is furnished free on application.

doubt change the status of the flock, as they will have to be sold to settle the estate. In all probability this will be the last chance for sheep-owners to secure some of these justly celebrated sheep.

JUTE-MILLS BURNED.—Buchanan & Lyall's jute-mills at Brooklyn, N. Y., the largest in this country, took fire on the night of the tenth, while 200 employes were at work. Men and women jumped from the windows in a panic. No lives were reported lost, but several were badly burned and injured. The walls fell at 1 o'clock on the morning of the 11th. The loss is \$400,000, fully covered by insurance.

PASTEURIZING RABBITS in New South Wales does not appear to be a great success. Word comes from Sydney that the committee on the experiment have made their report. They found that the rabbits which had been inoculated with the virus of chicken cholera or which ate food which had been infected with the virus, died, but that the disease was not communicated by one rabbit to another.

"CYCLONE" WIND ENGINES.—The Pacific Manufacturing Company of this city has issued its third annual catalogue of Cyclone Mills, pumping and geared, with many illustrations, including plans for tank-towers, and handy tables of information. The cover is attractively printed in colors, and has on the last page a spirited view of the company's great factory at Santa Clara.

CREAMERY AT SALINAS.—Ten thousand dollars has been subscribed, in \$100 shares, to put up a creamery and cold-storage building at Salinas City. The enterprise was started by John Stewart of Iowa, whose butter took the gold medal at the Centennial. The establishment is expected to be ready for business in July.

BOUND VOLUMES.—Back files of this paper bound in substantial cloth binding with leather back, containing six months' numbers in each, indexed, can be had at this office at \$4 per volume.

MERCED!

GREAT COLONY AUCTION SALE

WILL BE HELD ON

MAY 6th, 7th, 8th, 9th, 10th and 11th, 1889,

Six Days Continuous Sale

— OF —

10,000 ACRES

RICH

Fruit and Agricultural Lands,

Surrounding the City of Merced, the County Seat, and Under the Great Crocker-Huffman Canal.

MOST LIBERAL TERMS:

Only 20 per cent Cash, 20 per cent in Two Years, 20 per cent in Three Years, 20 per cent in Four Years and 20 per cent in Five Years.

Interest at the Rate of Six per cent per annum in advance. Ten per cent deposit at time of purchase.

SALE UNDER THE AUSPICES OF THE

PACIFIC IMPROVEMENT CO.,

Colonies organized by the Colonization Agent of the

SOUTHERN PACIFIC COMPANY.

FREE EXCURSION FOR PURCHASERS TO MERCED AND RETURN

From all Coast Points.

From San Francisco, Tickets good on all Regular Trains on May 5th, 6th and 7th.

Return Tickets good on all Regular Trains from May 8th to 13th inclusive.

Round Trip Tickets, from San Francisco, \$5.70, which amount will be returned to purchasers. Correspondingly low rates from all Coast points.

SALE AND EXCURSION UNDER MANAGEMENT OF

BRIGGS, FERGUSON & CO.,

314 CALIFORNIA STREET, SAN FRANCISCO.

Breeders' Directory.

61x lines or less in this Directory at 50c per line per month.

HORSES AND CATTLE

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

H. S. SARGENT, Stockton, importer and breeder of Thoroughbred Devons, Roadsters and Draft Horses.

HENRY HAMILTON, Stockton, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENNAN & ACREAK, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. B. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton) Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Shorthorns & Herefords, Wildflower Farm, Fresno or Sacramento.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. BOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER Saxe & Son, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

GEO. BEMENT & SON, Maple Grove Farm, Oakland P. O., breeders of Ayrshire Cattle & Essex Swine.

F. H. BURKE, 401 Montgomery St., S. F.: Registered Holsteins; winners of more first prizes, sweepstakes and special premiums this year than any herd on the Coast. Pure Berkshire Pigs. Catalogues.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

P. PETERSEN, Sites, Colusa Co., importer & breeder of registered Shorthorn Cattle. Young bulls for sale.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

POULTRY.

GALT POULTRY YARDS, S. W. Palin prop'r, Galt, Sacramento Co., Cal., importer and breeder of thoroughbred Ply. Rocks, Lt. Brahmas, Langshans, Wyandottes & P. Cochins; eggs, single sitting \$3; 3 sit'gs \$7.

A. C. RUSCHHAUPT (successor to Jas. T. Brown and W. B. Nisbet), box 43, station B, Los Angeles, Cal. Yard on State St., Brooklyn Heights, importer and breeder of 15 varieties thoroughbred Poultry. Fowls and Eggs at reasonable prices. Circular free.

O. J. ALBEE, Lawrence, Cal. W. Langshans, W. Wyandottes, P. Rocks, L. Wyandottes, Bl. Langshans & B. Leghorns. Eggs, white varieties, \$5 & \$3, others, \$2.

E. H. FREEMAN, Santa Clara, Cal. Best strains of thoroughbred Poultry. Send stamp for circular.

W. G. ELLIS, 954 Broadway, Oakland, importer and breeder of Black Leghorns and Silver Gray Dorkings.

PIEDMONT POULTRY YARDS, cor. Piedmont Ave. & Booth St., Oakland. Wyandottes, L. Brahmas, P. Rocks, Langshans, B. Leghorns, B. R. G. Bantams. Eggs \$2 for 13; circular free; Mrs. J. N. Lund, Box 116.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

R. G. HEAD, Napa, Cal., breeder of the choicest varieties of Poultry. Each variety a specialty. Send for new Catalogue.

T. D. MORRIS, Agua Caliente, Cal.; pure-bred fowls.

W. C. DAMON, Napa, \$2 each for choice Lt. Brahmas, Wyandottes, P. Rocks, White and Brown Leghorns. Eggs, \$2 per 13. Best seed for sale.

SHEEP AND GOATS.

J. B. HOYT, Bid's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

A. W. WOOLSEY & SON, Fulton, Cal., importers & breeders Spanish Merino Sheep; ewes & rams for sale.

B. H. ORANE, Petaluma, Cal., breeder and importer, South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennies & Berkshire Swine. Best breeds; rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

SWINE.

TYLER BEACH, San Jose, Cal., breeder of thoroughbred Berkshire and Essex Hogs.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Poland-China and Berkshire Pigs. Circulars free.

JOSEPH MELVIN, Davisville, Cal., Breeder of Poland-China Hogs.

ANDREW SMITH, Redwood City, Cal.; see adv't.

ANNUAL COMBINATION SALE.

Trotting Bred Stallions, Mares and Geldings

Bay District Track ON WEDNESDAY, MAY 15, 1889.

Selections will be offered from Breeding Farms of M. SALSBUURY, M. W. HICKS, F. H. BURKE, MRS. SILAS SKINNER and other noted breeders.

Entries will close April 1st. Only pedigreed stock will be received. Apply to

KILLIP & CO., Auctioneers,
22 MONTGOMERY ST., SAN FRANCISCO



ANNUAL SALE



Road and Harness, Work and Draft

THOROUGHbred RIDING HORSES

AND SHETLAND PONIES,

Property of **J. B. HAGGIN, ESQ.,**

FRIDAY, MAY 3, 1889,

Bay District Track, San Francisco.
CATALOGUES NOW READY.

Horses may be seen at the Track after the 30th of April.

KILLIP & CO., Auctioneers, 22 Montgomery St., San Francisco.

AUCTION SALE

FINE BRED TROTting STOCK

PROPERTY OF

D. J. MURPHY, ESQ.,

At 10 A. M., on

Friday, April 26, 1889,

AGRICULTURAL PARK, SAN JOSE.

The sale will comprise descendants of NUTWOOD, GEO. M. PATCHEN, JR., CAPT. FISHER, ETHAN ALLEN, JR., WHIPPLE'S HAMBLETONIAN, RED LINE, PRINCE ALWOOD, and STOCKBRIDGE CHIEF, and JOSEPH HERCULES, OWEN DALE and BELMONT, thoroughbreds.

Also CLYDE and NORMAN DRAFT HORSES.

All are broken to harness, except a few yearlings and two-year-olds.

Catalogues will be prepared immediately.

KILLIP & CO., Auctioneers,
22 Montgomery St., San Francisco.

GRAND CATTLE SALE!

GALLOWAY,

POLLED ABERDEEN ANGUS,
DEVON and DURHAM
CATTLE,

To be sold by order of the Executor of the late

SETH COOK,

At 11 o'clock A. M., at the

Bay District Track, San Francisco,

ON

THURSDAY, MAY 16, 1889.

The sale will comprise imported Bulls and Cows and their produce. This is the most superior lot of cattle yet offered for sale in California, and should command the attention of breeders throughout the Coast.

Catalogues will be ready Saturday, April 13th.

KILLIP & CO., Auctioneers,
22 Montgomery St., San Francisco.



SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with records better than 2:30, and the dams of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:23) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp. Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18; also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28).

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 406, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:28. Third dam by Cripple, a son of Medos (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Rydyk's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Tamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:38.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 6th heat, 2:28.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:30 and better. Second dam Fanny Malone, record, 2:36, trial, 2:33, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag; trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.
Vol. 1, American C. B. S. H.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.
Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" case, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at St. Yorkshire beating 20 others.

First dam Whalebone (855), first premium Gt. York-shire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16 1/2 hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daley by Luck's All 188.

Second dam by Providence 24; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Mid-dleton in Teedale, and second premium at Bowes, Eng-land, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

The Standard Bred and Cleve-land Bay Stallions

Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

PASTURAGE, \$4 per month; Hay and Grain, \$10. Best care taken, but no liability assumed for accidents or escapes.

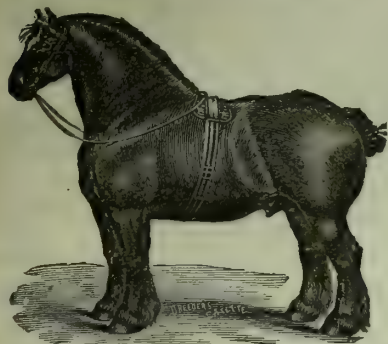
Mares sent to Fashion Stables, Oakland, Benne't's Stables, Martinez, or to Geary & Grindley's Stables, Hayward, will be forwarded to Farm Free of Charge.

Address:

COOK STOCK FARM,
DANVILLE, CAL.

PRIZE CLYDE STALLION

For Sale on Reasonable Terms,

**"ROYAL TOPSMAN,"** Just Imported,

Five years old, over 1800 pounds, sound and kind, good action, well bred and a first-class horse for breeding.

— ALSO —

Two Imported Shire Stallions for Sale.

Inquire of C. L. TAYLOR,

428 California Street, San Francisco, Cal.

COLTS BROKEN.**THE SOUTHER FARM,**

One and a half miles northeast of San Leandro, Alameda County, has every facility for Breaking Colts properly. Rates very reasonable. Horses boarded at all times.

THE SOUTHER FARM,GILBERT TOMPKINS, Proprietor,
P. O. Box 149, San Leandro, Cal.**SHETLAND PONIES,**

36 to 40 inches high, with grand action.

REGISTERED SUSSEX BEEF CATTLE.

Rivals of the Shorthorns and Herefords.

REGISTERED BRITTANY DAIRY CATTLE.

The Brittany is universally considered the Cow par excellence for the Dairy.

DORSET HORN SHEEP,

Which will produce Twin Lambs twice yearly.

ROBERTSON & CO.,

(Exporters. Established 1864.)

WORKING, SURREY, ENGLAND.

Correspondence Solicited.

ARGONAUT STOCK FARM,G. M. DIXON, Prop., Sacramento, Cal.
Importer and Breeder of Thoroughbred Polled Aberdeen-Angus Cattle.

The ARGONAUT HERD of Polled Angus Cattle is the largest and finest on the Pacific Coast. Choice young Bulls and Heifers for sale at reasonable prices. A fine lot of young high-grade Bulls suitable for range service, this season, will be sold at prices to suit the times. If desired, can supply a carload lot of yearling Bulls and Heifers. For information call on or address G. M. DIXON as above.

ATTENTION!

A number of fine, pure-bred

HOLSTEIN-FRIESIAN BULLS

(Registered) are on sale at reasonable terms at the MT. EDEN BREEDING FARM. Also a 2-year-old entire Clydesdale colt. Address or call on

H. P. MOHR,

Mt. Eden, Alameda Co., Cal.

PERCHERON HORSES ONLY.

I offer for sale at my ranch, on Clear Lake, near Lakeport, pure-bred Percheron Mares and Horses of the choicest families. Pedigrees recorded in the Percheron Stud Book of France and America. They are principally the Brilliant, Caesar strains of blood. Address

WM. B. COLLIER,
Lakeport, Cal.**MANHATTAN FOOD
FATTENS HORSES.**

It prevents disease, regulates the bowels and urine, strengthens the kidneys, prevents scouring, colic and leg swelling, loosens the hide, promotes the appetite, cures cough, destroys worms, and produces a fine glossy coat. \$7.50 per 100 pounds. Manhattan Egg Food, in bulk, 12 cents per pound. Ask your dealer, or send to 576 Howard Street, San Francisco.

BADEN FARM HERD

Of Short Horn Cattle and Dairy Cows.

Catalogues and Prices on application to

ROBERT ASHBURNER,

Baden Station. - San Mateo Co., Cal.

LARGEST STOCK OF

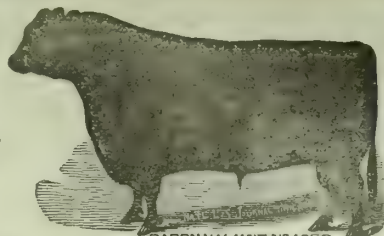
SADDLERY AND HARNESS

On the Pacific Coast. Wholesale and Retail.

Send order and try goods and prices.

C. L. HASKELL No. 10 Bush St. S. F.

S. N. STRAUPE, Proprietor,



BARON VALIANT No. 452

P. O. Address, FRESNO, CAL.

POPLAR**GROVE****Breeding****FARM,**

— IMPORTER AND BREEDER OF —

THOROUGHbred POLLED ANGUS AND SHORTHORN CATTLE, AND HIGHLY-BRED TROTTER HORSES.

For information address or call on S. N. Straube as above. No trouble to show stock to intending purchasers.

CHAMPION GOLD MEDAL STUD!**250 CLEVELAND BAYS AND ENGLISH SHIRES**

Of the highest breeding and most popular strains. We carry a large stock of young, vigorous stallions and mares at all seasons, imported young and matured on our farms, thus fully acclimated and sure breeders. Prices low and terms easy.

150 HOLSTEIN-FRIESIANS

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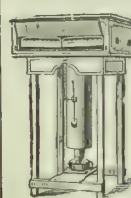
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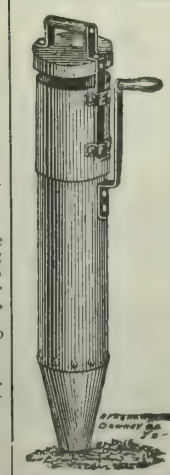
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new	7 @	Ducks, tame...	6 50 @ 9 00

EGGS.			GEOSE, pair.		
Cal. ranch, doz.	18 @	19	do Goslings.	2 50 @	2 00
do store.	13 @	17	Turkeys, Goblr.	25 @	3 00
Eastern, lined.	13 @	17	Turkeys, Hens.	18 @	19
Eastern, fresh.	13 @	14	do dressed.	1 25 @	1 60
FEED.			Rabbits, doz.		
Barley, ton.	12 00 @	13 00	Hare.	1 00 @	1 75
Feedmeal.	24 00 @	26 00	EGG FOOD.		
Gr'd Barley.	16 00 @	17 00	Manhattan, lb.	12 @	—
Middlings.	14 00 @	16 00	PROVISIONS.		
Oil Cake Meal.	30 00 @	—	Cal. Bacon.	—	—
Manhattan Food.	—	—	Heavy, lb.	11 @	12
Per 100 lbs.	7 50 @	—	Medium.	12 @	14
HAY.			Extra Light.	12 @	13
Compressed.	8 00 @	11 50	Lard.	10 @	11
Wheat, per ton.	8 00 @	13 50	Cal. Sm'd Beef.	11 @	12
Wheat and Oats.	7 00 @	12 00	Hams, Cal.	12 @	14
Wild Oats.	8 00 @	10 50	do Eastern.	13 @	14
Clover.	—	—	SEEDS.		
Cultivated Oats.	7 50 @	10 00	Alfalfa.	12 @	13
Barley and Oats.	6 50 @	9 00	Canary.	34 @	4
Alfalfa.	7 00 @	9 50	Clover, Red.	12 @	13
Compressed.	7 00 @	7 75	White.	20 @	22
Straw bale.	65 @	80	Cotton.	20 @	—
FLOUR.			Flaxseed.	22 @	3
Extra, City Mills.	4 35 @	4 55	Hemp.	32 @	44
do Co'try Mills.	4 00 @	4 50	Italian Rye Grass.	10 @	11
Superfine.	2 75 @	3 25	Medicinal.	7 @	9
GRAIN, ETC.			Millot, German.	5 @	6
Barley, feed, chl.	61 @	68	do Common.	5 @	6
do Brewing.	70 @	75	Mustard, yellow.	13 @	24
do do Choice.	80 @	90	do Brown.	23 @	34
Chevalier once.	—	—	Rape.	14 @	2
do com to good.	—	—	Ky. Blue Grass.	14 @	16
Buckwheat.	1 07 @	1 10	do quality.	13 @	14
Oats, White.	1 07 @	1 17	Sweet V. Grass.	75 @	—
Yellow.	1 07 @	1 17	Orchard.	14 @	16
Oats, milling.	1 10 @	—	Hungarian.	74 @	8
Choice feed.	1 00 @	1 02	Lawn.	27 @	40
do good.	95 @	—	Mesquit.	6 @	—
do fair.	90 @	—	Timothy.	6 @	—
do Gray.	—	—	TALLOW.		
Rye.	1 50 @	1 60	Crude, lb.	3 @	5
Wheat, milling.	—	—	Refined.	6 @	—
Gilt edged.	1 41 @	1 45	WOOL, ETC.		
do Choice.	1 40 @	1 42	SPRING—1889.	—	—
do fair to good.	1 37 @	—	Humboldt and	—	—
Shipping, choice.	1 38 @	—	Medocino.	—	—
do good.	1 36 @	1 37	Sac'to Coast.	15 @	22
do fair.	1 33 @	1 35	Free Mountain.	—	—
HIDES.			S Joaquin valley	12 @	20
Dry.	11 @	—	do mountain.	—	—
Salted.	5 @	8	Calav & F'th'l.	15 @	25
HOPS.			Oregon Eastern.	—	—
Oregon.	8 @	17	do valley.	—	—
California.	8 @	17	So'n Coast, dof.	11 @	14
			So'n Coast, free.	13 @	18

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Apples, bx, com	75 @	1 50
do Choice.	2 00 @	2 50
do E's/r'n, bbl	—	—
Bananas, bunch	1 50 @	3 00
Cranberries.	7 00 @	8 00
Limes, Mex.	3 75 @	4 50
do Cal.	60 @	1 50
Lemons Cal. bx	75 @	1 75
do Stilly, box	4 50 @	5 50
do do seedling	2 00 @	3 00
Oranges, Com bx	1 00 @	1 50
do Choice.	1 75 @	2 50
do Navels	—	—
choice.	4 00 @	4 75
do good.	3 00 @	3 75
do Com.	1 75 @	2 50
Pineapples, doz.	5 00 @	6 50
Raspberries, drw	70 @	60
Strawberry chest	14 00 @	17 00
do fair to good	5 00 @	12 00
VEGETABLES.		
Asparagus, bx.	60 @	1 25
do choice.	1 25 @	1 75
do do.	—	—
Egg Plant, lb.	—	—

Combined Harvester.

The city of Stockton has the largest and most extensive manufacturing for combined harvesters of any place in the world. During the last ten years there has been a series of experiments and inventions with a purpose of making a practical, economical and successful combined harvester. Each year some new device has been added, suited to locality and purposes desired. The "Houser," with improvements that have been made and an adjunct of the "Star cleaner," makes this harvester an economical and practical machine, suited to the wants of the California farmer and one that a large number of our ranchmen believe to be indispensable in harvesting their extensive grain-fields. Messrs. Holt Bros. of Stockton are building what they term Holt Brothers' improved combined harvester. Its claim to superiority is the use of the V link for belting on most of the pulleys, and it is claimed to be a machine of light draught, durability and efficiency as a practical machine for the farmer.

Matteson & Williamson, pioneers, inventors of agricultural machinery for the ranchmen of the Pacific Coast, are building a large number of the Harvest Queen compound harvesters this year, and it is claimed that they possess certain features that make them superior to all others. Each harvester has its distinct devices and merits adapted to circumstances and localities.

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SIX HUNDRED cypress trees and two fine La Marque rose-bushes were planted by the pupils of the Martinez school on Arbor Day.

PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.)

DATE.	Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.			
	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.				
April 10-16.																																				
Wednesday .....	.T	56	Nw	Cy.	.02	52	N	Cy.	.10	58	S	Cy.	.03	58	SE	Cy.	.02	56	W	Cl.	.60	62	SW	Cy.	.00	62	SW	Cy.	.04	56	SW	Ry.	.00	60	S	Cy.
Thursday .....	.00	56	SE	Cy.	.00	—	—		.02	70	S	Cl.	.01	68	SW	Fr.	.00	56	W	Cl.	.02	66	SW	Cl.	.12	58	E	Cl.	.14	60	W	Cy.	.14	62	W	Cl.
Friday .....	.38	56	S	Cy.	.14	54	SW	Ry.	.02	58	S	Cy.	.01	54	SW	Ry.	.00	56	W	Cy.	.00	70	Nw	Cy.	.00	62	W	Cy.	.00	62	W	Fr.	.00	62	Nw	Cy.
Saturday .....	.32	46	S	Cy.	.42	52	N	Fr.	.18	54	W	Fr.	.03	60	SW	Cl.	.21	55	W	Cy.	.T	64	Nw	Cy.	.00	72	S	Cy.	.00	58	SW	Cy.	.00	62	W	Cy.
Sunday .....	.08	50	S	Ry.	.20	50	S	Cy.	.16	54	S	Cy.	.T	58	SW	Cy.	.T	57	S	Cy.	.00	68	Nw	Cl.	.00	68	SE	Cl.	.00	60	SW	Cl.	.04	62	W	Cl.
Monday .....	.08	52	Nw	Ry.	.94	56	S	Ry.	.04	60	S	Fr.	.04	62	SW	Fr.	.22	60	SW	Cl.	.00	68	N	Cl.	.00	72	SE	Cl.	.00	64	W	Cl.	.00	62	Nw	Cl.
Tuesday .....	.21	48	S	Cy.	.22	56	Nw	Fr.	.T	60	W	Fr.	.00	66	SW	Fr.	.T	59	W	Cy.	.00	72	Nw	Cl.	.00	68	S	Cl.	.00	64	SW	Fr.	.00	64	Nw	Cl.
Total	1.07				1.94				52				12				45				.02				12				18			13				

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Ry., foggy; Cm., calm; — indicates too small to measure. Temperature, wind and weather at 12:00 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.

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RUNNING LOCOMOTIVES WITH SODA INSTEAD OF COAL.—At the Baldwin Locomotive Works, Philadelphia, there are in course of construction four locomotives which are designed to run by soda, which takes the place of fire under the boiler. The engines are now nearly finished and will be shipped within two weeks to Minneapolis, Minn., and are to be run on the streets of that city, where steam engines are forbidden. The engine is about 16 feet long, entirely boxed in, with no visible smokestack or pipes, as there is no exhaust or refuse. The boiler is of copper, 84½ inches in diameter and 15 feet long, having tubes running through it as in steam boilers. Inside the boiler will be placed five tons of soda, which, upon being damped by a jet of steam, produces an intense heat. In about six hours the soda is thoroughly saturated, when the action ceases. A stream of superheated steam from a stationary boiler is then forced through the soda, which drives out the moisture and the soda is ready for use again. The exhaust steam from the cylinders is used to saturate the soda, and by this means all refuse is used. These engines are the first of their kind that have been built in this country. They will have the same power as those used on the New York elevated roads. Soda engines are used in Berlin and other European cities very successfully, and they also traverse the St. Gothard tunnel, under the Alps, where the steam engines cannot be used, because the tunnel cannot be ventilated so as to carry off the noxious gases generated by a locomotive.

WHEN THE WORLD WAS YOUNG.—According to Mr. Proctor, the present denuding effects of air and water upon the earth's surface are absolutely as nothing compared with the denuding forces which must have been in operation when the earth was young; the oxygen and nitrogen of the air are but a residue of what was once there; but besides these gases, now in due proportion to support the earth's life, there were immense quantities of carbonic-acid gas, of sulphurous acid, sulphureted hydrogen, chlorine, boracic acid, and other destructive gases, some ready to assume the liquid form, and thus to be still more destructive. Mr. Proctor thinks there must also have been immense quantities of water in the form of vapor; in fact, the presence of that primeval atmosphere must have been so great, he thinks, that the waters of such oceans as then existed could have turned into steam only at a temperature so far above the boiling point at the present atmospheric pressure as to have caused the surface of the ocean to actually glow with inherent luster. The water vapor in the air must also have been steam at a high pressure and intensely hot, and the rains falling then must have been in the form of torrents of hot water, impregnated with most destructive acids and falling on intensely heated rocks.

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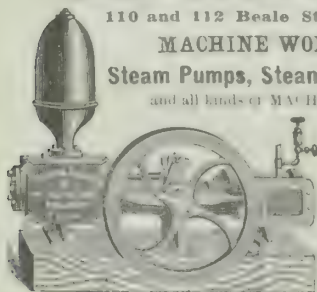
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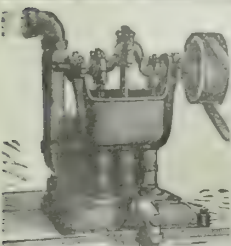
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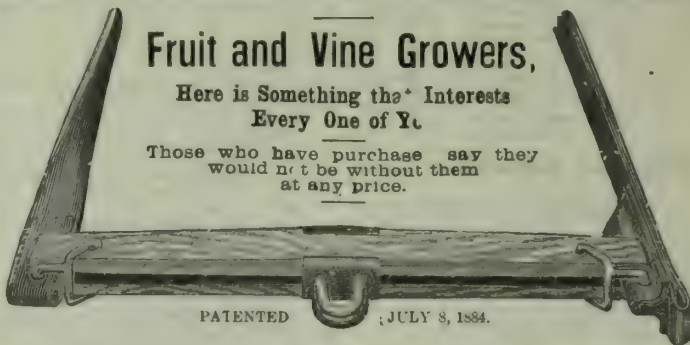
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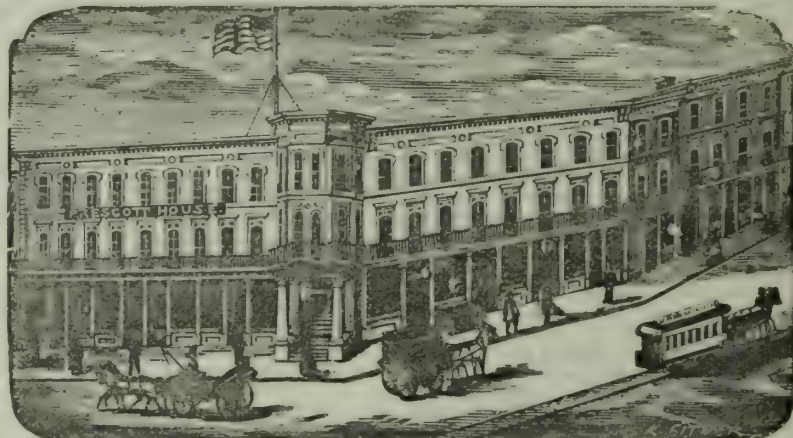


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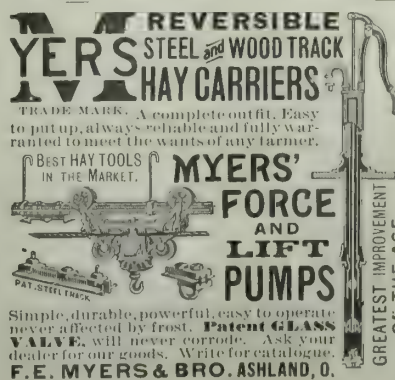
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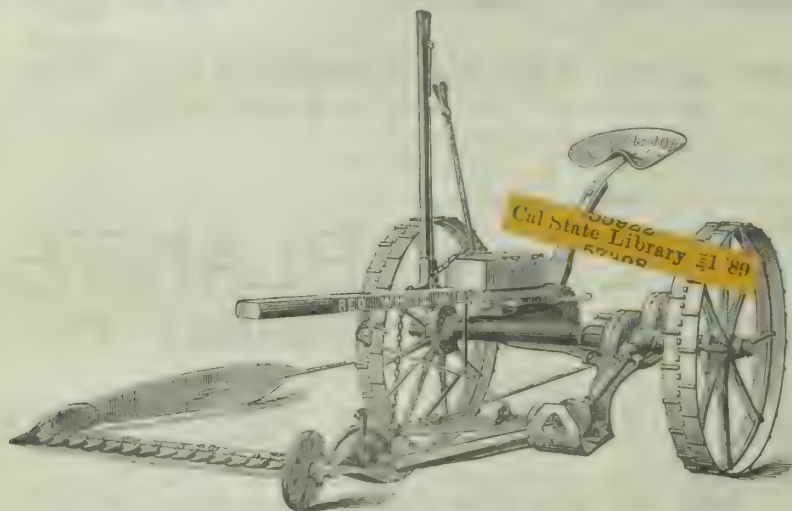
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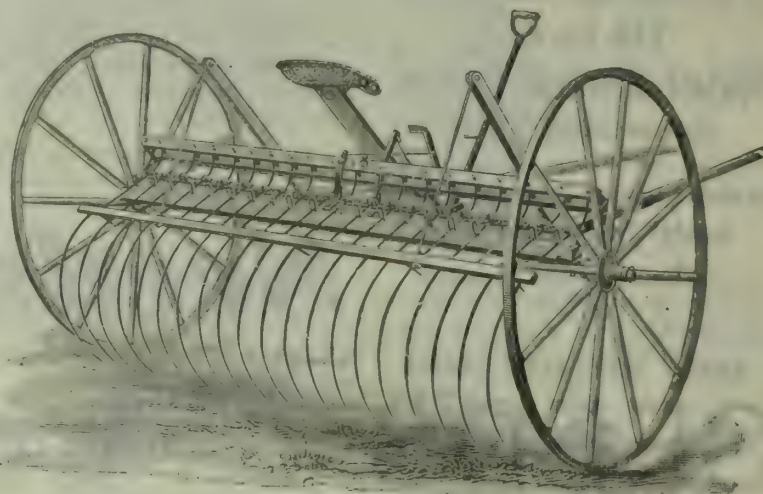
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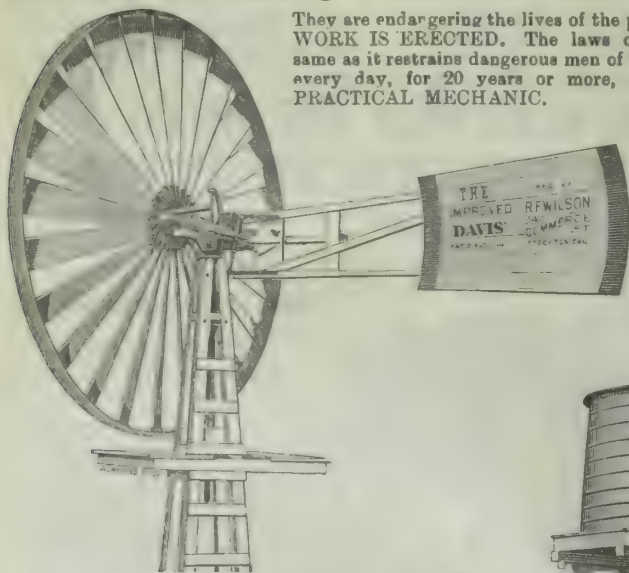
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Vol. XXXVII.—No. 17.

SAN FRANCISCO, SATURDAY, APRIL 27, 1889.

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Floral.

Pertinent to the season is the attractive portrayal upon this page, and suggestive also of coming events which will engage the attention of flower-growers and flower-lovers. For weeks past the plains and canyons and hilltops of California have been ablaze with the hues of wild flowers, with a range of color and variety of form passing description. The generous rains coming late, with abundant sun-heat at intervals, have given us this spring a natural floral exhibition quite up to the traditional glories of the State.

Present indications of the advance of the floral art in this far western land are also abundant. The State Floral Society organized last autumn has grown steadily in membership and has awakened interest in all parts of the State. As is shown by a report in another column, the first exhibition under the auspices of this society will be held in this city during the third week of May. It will be, so far as possible, a well planned and arranged exhibition, with the object of ministering to the education of the public in floral matters as well as to delight the senses. Exhibits merely for display are not encouraged, but the effort is to be expended rather upon the display of well-grown specimens which shall show the triumphs of the art of floriculture, and with all objects correctly named, so that intelligent impressions can be gained by the visitor. Of course as this will be the society's first effort, it will probably have its imperfections; but if the people will



A. PROFESSIONAL FLORA.

grant their support and patronage, the society will go forward seeking the highest excellence such as pertains to floral exhibitions in older-settled communities.

We trust flower-growers within reach of the city will join the members of the society in the effort, and that the display may fitly represent our floral art and resources. All are entitled to exhibit, under the rules, by contributing the nominal fee of one dollar, which admits to membership. Attendance at the fair will doubtless be drawn from long distances, as a large exhibit of flowers properly named, will be something of a novelty in California.

Floral fairs with the social and charitable elements largely involved, are now being held in different parts of the State. That at Los Angeles was a grand success, as will be described in next week's Rural. Other floral centers will have their displays later. These exhibitions should be held every where. No community in California will fail with a flower show if the effort is put forth, and no one can know the social delights they offer and the gentle, refining influence they exert, unless experience be had with such undertakings. Our produce displays are interesting and valuable, but we should not forget that horticulture without direct commercial significance should not be overlooked, and that beauty, for its own sake, should share our people's devotion. Visitors say that California is given over to commercial horticulture. We shall learn better as we grow older.

HORTICULTURE.

The Fruit-Growers' Convention—No. 1.

The Opening Addresses.

The Eleventh Convention of California Fruit-Growers opened in due form in Steele's hall, in National City, on Tuesday, April 16th, President Ellwood Cooper of Santa Barbara in the chair. Warren Kimball, Esq., and Hon. T. J. Swayne of National City were chosen vice-presidents, and George Rice of Los Angeles assistant secretary.

As foreshadowed by our previous comments on the subject, the welcome to the delegates was one of the most cordial and elaborate in its method ever extended to any assemblage of fruit-growers. There was a most beautiful and rich display of floral and horticultural products, of which we shall give account at another time.

The Opening Address.

At the first session of the convention, President Cooper delivered his opening address, as follows:

This will be the eleventh State Fruit Growers' Convention, and the seventh held under the auspices of the State Board of Horticulture. At the last convention held in Chico, Nov. 20th to 24th inclusive, the subjects discussed took rather a wider range than at any previous one. We had a most interesting meeting, well attended, members expressed themselves as being edified, and all through it was one of profit. The subjects that elicited the most diversified opinions were Insect Pests, The Olive, and Pruning. There was a very great difference of opinion regarding varieties of the olive. I have prepared a brief paper on the subject which is before the convention and it will appear in its proper place on the program. There was some difference of opinion regarding the methods of pruning, and there appeared to be a doubt as to the better one. All, however, were in favor of low pruning. I have a paper to present on high pruning, when this subject is under discussion. Much alarm was manifested on account of the ravages of the "Icerya Purchasi," and information is wanted how best to arrest the spread of this dangerous insect. No new discoveries in remedies, so far as I have learned, have been made.

I have been informed through the newspapers that several varieties of predaceous insects to prey on the Icerya have been received at Los Angeles from Australia or New Zealand, and I trust a full report on this experiment will be made at this convention. I have also been informed by gentlemen living in San Gabriel valley that some disease or some insect was destroying the Icerya almost entirely in some orchards. I have invited reports on this, and trust we will have the same during our session.

The curled leaf on the peach was not scientifically understood. The pear blight as it appeared in some localities was discussed, resulting in many different views given on the subject.

Irrigation and non-irrigation occupied considerable time; some were enthusiastic as to the thorough cultivation without irrigation producing a firmer and better fruit; while others with equal force claimed that with careful irrigation the best results were obtained and just as firm and sound fruit produced. A large allowance must be made for the difference in localities and whether in bottom or on table lands.

A very interesting essay by General Chipman, "Wheat vs. Fruit," was read at the Chico convention and will be found in our reports. It showed the average crop was very small as compared with the product of the intelligent and provident cultivator. It pointed out where wheat lands had at one time produced 60 to 70 bushels to the acre, they now produced only 15, one-fourth as much, this result owing entirely to the want of fertilizing. It gave the whole number of pounds of ripe fruit shipped by the California Fruit Union, with the net average price received. Some of the shipments gave as high as ten per cent, while others did not bring sufficient to pay freight. Such statistics do not represent the fruit industry as conducted by intelligent fruit-growers. I will state that while the deductions from the average crops show absolutely the true condition of the prosperity of the country, we do not hold out to new orchardists any such gloomy showing; while correct as statistics, it is not correct as the result of the intelligent fruit industry. The average results from the different orchards of careful, intelligent and industrious fruit-growers are what we hold out as possible for every new cultivator who embarks in the business.

Complaints have been made by careful fruit-shippers of their losses sustained by reason of shipments of unsound fruit sent at the same time as their shipments.

Unsound fruit shipments were forced on the market at such prices as prevented the disposal of the sound fruit at prices which would net a fair return to the owners. Such a condition of things should not be permitted. This brings me to the point which I intend to advocate as one of the important measures to be adopted by the fruit-growers, that is, "Fruit Inspection."

The importance of such a measure cannot be more forcibly presented than by quoting from the address of Parker Earle, president of the American Horticultural Society, delivered at San Jose, January 24th, last year. He said:

"I am a fruit-grower, a fruit-packer and a fruit-

buyer, and I stand in all three capacities to protest in all the earnestness of my soul against all kinds of deception in fruit packing. * * * You cannot afford to pay freight on trash two or three thousand miles. * * * It cannot be too often or too earnestly impressed upon fruitmen everywhere that to secure the best results the most scrupulous pains must be taken, not only in growing fruit properly, but in careful handling, thorough grading and unflinching honesty in packing."

I have been familiar since my earliest boyhood with the inspection laws of the Atlantic seaboard cities. Many of the staple articles were subjected to a careful examination before being offered for sale. Flour, if short in weight, was confiscated if not equal in quality to the standard requirements, and marked so that all purchasers were aware of its inferiority. Butter, if short in weight, was confiscated. Meat, if tainted, was confiscated. Pork in barrels was subject to the same rigid rules as flour. No one ever pretended that these iron-clad inspection laws worked injury to the people, but on the contrary considered them a necessity, in order to protect consumers from fraud.

Regarding our fruit shipments, there is no excuse for those who ship unsound fruit. In our published reports all the information is given. Four times out of five, shipments of unsound fruit give a loss to the owner. If this were all, it would not so materially concern the great body of shippers, but the markets are injured by the forced sales of the unsound and worthless shipments, hence the necessity of inspection at the place of shipment.

Again, we pay a fixed rate of freight to the railroad companies for a fixed time in transportation. The railroads should be compelled to insure the time. We have no control over the management and no recourse where losses are sustained by reason of delay.

At every previous convention where I have had the honor to preside I have called your attention to the importance of proper distribution of our fruits. It seems to me that this question is paramount to every other, excepting only the question of insect pests. I was particularly impressed with that portion of the opening address of Parker Earle, already referred to. I quote from page 34, under the head of "Fruit-Growing":

"It appears to me that there is no subject of more immediate practical interest to the commercial fruit-grower than this one of the means for a wide distribution. The fault is with our transportation, and our lack of any far-reaching and elaborate system of distribution. I think I have known good oranges to sell at not much over one cent apiece at wholesale in Chicago, the market being overloaded, when there were a thousand towns within a few days' ride of that city in which you could not buy an orange for less than five cents—and not many at that—and millions of people within the same radius who did not taste an orange in the whole winter. * * * So many of our available markets are not reached; and the fruit-grower suffers from an apparent overproduction when half the people go hungry for fruits which they need and cannot obtain."

Fruit trees are being planted by the millions in California, and I cannot too forcibly impress upon you the importance of this problem, how are we to dispose of the fruit without loss to the producer?

The Legislature has increased the appropriation for horticultural purposes; amended the law so as to permit more efficient work; appropriated \$5000 for entomological field work; amended the law for the prevention of the spread of insect pests. This law gives the power to the people of any district to compel owners of orchards to employ every possible means to destroy the insects infesting orchards, or in the absence of such energetic work to destroy the orchards by rooting out and burning up the trees at the expense of the owners.

This thoughtful and wise legislation is very commendable and should have our thanks. It is our desire and hope that we can accomplish greater good; but we will require the support of the great body of fruit-growers. We wish to co-operate with them. We will not only have the opportunity of interchanging ideas on all subjects appertaining to horticultural pursuits at the semi-annual Fruit-Growers' Convention, but also through the medium of correspondence through our central office, 220 Sutter street, San Francisco, where efficient and competent persons will always be present to answer correspondents. We have been fully aware of the greater responsibilities involved in demanding of the Legislature better laws and more money, but we have done so with the conviction that the fruit industry required it; we will rely upon the concerted action of interested fruit-growers, so as to accomplish the greatest possible good for the expenditure.

The law permits responsible and competent fruit-growers, by and with the advice and under the direction of the State Board of Horticulture, to make experiments in destroying insect pests in their own orchards or districts at the expense of the State, but in order to obtain this permission a written demand must be made giving the nature of the experiment, the formula, how to be applied, upon what variety of fruit trees and upon what kind of insects. It will be expected before such permission is granted that only the actual cost will be included in the expense involved in such estimates. The orchardists, who may profit by such experiments in such districts, will be expected to give their time freely and willingly in overseeing such experiments free from charge.

Committee on Program.

President Cooper's address was received with generous applause, after which the chairman

asked for instructions in regard to appointing a committee to draft programs to govern the movements of the convention. Senator Johnston moved that a committee of five be appointed. The following gentlemen were then appointed, with instructions to report immediately after the noon recess: Messrs. G. C. Swan, A. Kinney, Dr. A. F. White, T. W. Smith and J. A. Rice.

The Address of Welcome.

The address of welcome was delivered by Mrs. Flora M. Kimball of National City. The San Diego Union says: "When the name of Mrs. Flora M. Kimball was read, the applause was loud and continued, and broke into an ovation as the lady ascended the rostrum. In a clear voice, and without any of the nervousness of stage fright, which would have been excusable on facing so large an audience, many of them, in a measure, strangers, this gifted lady whose talent we know of old, delivered the following beautiful address, receiving much encouragement from her audience."

We make this quotation merely to show how kindly is the sentiment toward Mrs. Kimball in her own county. Popularity at home is proverbially the best tribute to merit. Readers of the Rural will be pleased to see their own appreciation of Mrs. Kimball thus seconded. The opening address was as follows:

Mr. President, Gentlemen of the State Board of Horticulture and Fruit-Growers of California: In behalf of the citizens of National City, and every other resident of San Diego county, I extend to you all a most heartfelt welcome. Why I was commissioned to perform this pleasant duty I cannot conjecture, unless, having so many eloquent gentlemen among us, it was impossible to choose from the number the one most gifted in speech, and so, setting learning and eloquence aside, the lot fell to one who could excite neither envy nor jealousy; yet one most thoroughly in sympathy with the work to which you have dedicated your lives, and are giving so liberally of your intellect as well as time.

Could you have known what enthusiasm possessed us all when it was publicly announced that National City was to be honored with the Eleventh Annual Convention of Fruit-Growers, you would need no address of welcome to emphasize the fact that we are glad to see you. The ancient Argonauts who braved the perils of the seas to recover the golden fleece, and the Argonauts of '49 who invaded these unknown shores in search of gold, were, indeed, heroes; but you, our horticultural Argonauts, who explore the hidden mysteries of Nature and bring forth her secrets for the improvement and perfection of our golden fruits, are both heroes and benefactors, and are closely allied to our homes and hearts. I can easily forgive the idolatry of the ancients who worshiped trees. They must have possessed esthetic and refined natures, and if unable to grasp the idea of the Creator, centered their worship on one of His noblest creations.

You come to us, gentlemen, not as horticulturists alone, but as apostles of the gospel of fruit, trees and flowers. We recognize the truth that planting trees, garnering fruits and developing new forms of vegetation is not your highest work. A richer harvest than the merely economic awaits your labors. We rejoice in your presence here to-day, not so much from anticipated benefits to our horticultural industries as from the richer harvest of morality, beauty and religion that will spring from the scattered seed of thought you have brought to us. No nature is so depraved that it does not respond to the refining influences of trees, their flowers and fruits; and none so perfect that may not be made purer and better by their blessed presence. Hence we are doubly glad to have the opportunity of extending this welcome, because we appreciate the great value of their dual work, and anticipate greater results from this convention than anything that has been promised us. We beg you to close your eyes to our uncultivated mesas and valleys, for we would not have you compare them with the magnificent stretches of orchards in your more northern homes, remembering only that San Diego is the infant in the large family of counties, but we hope by nature as smart as the rest; and when she gets a little older we will be pleased to show you again what she has accomplished in the line of horticulture.

Nature, lavish in her gifts to every portion of the State, has dealt generously with us. She has given us a soil responsive to man's efforts, furnished huge basins for the storage of water abundantly supplied, and but yesterday the cunning hand of man commenced its task of aiding in the work of storing for all future time. It is scarcely two decades since the Yankee's plowshare, following in the wake of the retreating herds of Mexican cattle, turned the virgin soil to the warm sunshine, while the fruits before you are the products of trees, the oldest of which have scarcely entered their teens.

In our horticultural infancy it is a matter of pride that we are a part of this great commonwealth; and when California sends annually to Eastern markets her thousands of carloads of fresh deciduous fruits, canned fruits of upward of \$1,000,000 in value, from her vineyards 800,000 boxes of raisins and a vintage of 18,000,000 gallons, and oranges by the thousands of carloads, we say, with the pardonable satisfaction of old Californians, we do these things; and when we see it estimated that 1890 will find 1,000,000 of our orange trees of bearing age in Southern California, we may be pardoned for a

stronger emphasis on the "we" when we shall say: We have done this also.

I have unbounded faith in the moral and mental curative properties of trees and flowers, and I would be glad if the power of locating insane asylums, boys' and girls' reformatories, and homes for the aged was vested in a Board of Horticulture. I believe it would go outside the poisonous atmosphere of cities and plant these homes for the hopeless and unfortunate in broad orchards, where the luscious fruits, the delightful shade and sweet flowers should be as free as the pure country air. Cities have been aptly called necessary evils, which while they serve the lower purposes of commercial centers, they do not possess the elements that restore unbalanced reason, nor the peace and quiet so essential to those nearing the sunset of life, nor remedies for the moral delinquencies of youth. Give a mischievous city youth a dozen fine fruit trees, all for his very own, his to cultivate and enjoy the fruit thereof, and his early reformation may be safely predicted. I pity the child whose lot is cast among the piles of brick and mortar of cities, whose feet have never trodden the soft, yielding grass, and whose heart has not beat with joy in the shadowy embrace of open-armed trees, whose childish appetite has never been appeased with fruit, and whose sense of beauty has not been ministered to by the happy, laughing flowers. Our world's waifs can only hope for happiness through work like yours.

That venerable horticulturist, Rev. A. B. Mussey of Cambridge, his co-worker, Thomas G. Fessenden, and other eminent thinkers, venture the assertion that an unlimited use of fresh fruits as food will ultimately satisfy the craving for intoxicating stimulants; and so I might add the asylum for the inebriate is one of the institutions that ought to be established in a fruit orchard, and the advancement of the temperance cause as another of your moral missions. One of our sweetest singers has grandly said:

"Give fools their gold, and knaves their power,
Let fortune's bubbles rise and fall;
Who sows a field, or trains a flower,
Or plants a tree, is more than all."

I voice the sentiment of San Diego county's 50,000 people when I thank you for your presence here to-day. To-day inaugurates an era in our history, from which we expect to date a new awakening in the best pursuits of human kind; but better still, the strengthening of the bond that binds in one common brotherhood the northern and southern portions of our beloved California. Whatever there is in our little town or its environments that possess histories or present interest we trust you will, for the time being, consider your own, and enjoy the fullest measure of all presented to you, and when this pleasant session is ended and you leave for your own homes again, may you bear with you as kind remembrances of us as we shall retain of you and your work.

Since coming into the hall I am reminded that 100 years ago to-day, April 16, 1789, Washington started from Mount Vernon on his inaugural march to New York, to be inaugurated as the first President of the United States. All along the route he received an ovation. His path was strewn with flowers by the ladies of the land, while men, women and children vied with each other to do him honor. It is safe to assume, however, that Washington never witnessed such a scene as this, done in honor of President Cooper and his co-workers.

At the conclusion of Mrs. Kimball's address, N. R. Peck was asked to say a few words. He responded very happily, to the effect that, though he had been suffering from a severe attack of neuralgia, the bright words of welcome of the gifted lady who preceded him had almost entirely effected a cure, and he thanked both the lady and the convention for her address.

Loud calls were made at this juncture for John R. Barry, to which that gentleman responded in his usual happy vein. Mr. and Mrs. Ludlow Patton of New York City were then asked to favor the convention with a song. Mrs. Patton was, before her marriage, Miss Abbie Hutchinson, of the famous Hutchinson family of singers. Their first selection, "We are with You Once Again, Kind Friends," was so heartily encored that they gave a very sweet old song, entitled "The Stranger on the Hill," which seemed to touch a responsive chord in many hearts, a number being affected to tears. A rising vote of thanks was tendered them, after which the convention adjourned till afternoon.

FLORICULTURE.

A Floral Fair Next Month.

The State Floral Society met April 12th, and the rooms of the State Board of Horticulture were odorous with the perfume of many flowers. Berger & Co. contributed a magnificent display of tree peonies, rhododendrons, azaleas mollis and dendrobium orchids. Other interesting exhibits were also made.

E. J. Wickson presided. R. R. L'Homme-dieu of Oakland and Mrs. Michel, E. L. Reimer and Mrs. H. H. Blanding of San Francisco were elected to membership.

J. H. Sievers of the Committee on Floral Exhibition reported at length, and after that the recommendations were generally discussed. The exhibition is to be held next month, probably about the 15th, and will continue three days. It is planned to have the show both en-

tertaining and instructive. It will be the first properly classified flower show ever held on this coast. All the flowers will be arranged and labeled so that the visitor can readily learn the botanical name of all flowers shown. There will be about 100 classes of entry, and about 65 prizes will be awarded. The latter will consist of silver and bronze society medals struck from dies designed for the purpose, and certificates of merit.

The committee's report, including premium list and rules for the exhibition, was adopted with a few slight amendments. A committee of three, consisting of C. V. Parker, O. C. Pope and J. H. Sievers, was appointed to take general management of the exhibition, with power to appoint sub-committees, and to them was also left the duty of selecting a suitable hall.

Dr. Brigham called attention to several specimens of *primula abonica* which were on the secretary's table. They are natives of China and are peculiar in their abundance of bloom and in the fact that plucked pieces, when placed in water, will retain their freshness for several weeks. The flower is small and of several delicate tints.

The society thanked Mr. Sievers for his excellent display of orchids made at the last meeting, and also thanked H. H. Berger & Co. for their beautiful display of azaleas, Japanese maple and other plants.

A. L. Bancroft read an interesting paper on the exhibition of wild flowers, written for the *Garden and Forest* by Dr. C. L. Anderson of Santa Cruz.

SHEEP AND WOOL.

Wool Facts and Figures—No. 3.

[Written for the Rural Press by J. R. F.]

To trace the history of sheep husbandry from its infancy, we would have to go back to the earliest recorded ages, for reference is often made in the Bible to sheep, wool and woolen goods. History states that the "warp or woof of woolen" was one of the leading staples of the primitive weavers of Syria, Palestine, Greece, Italy and Spain. The fine clothes worn by the Romans in the first century of the Christian era were made from the wools imported from Spain. Pliny describes several breeds of fine-wooled sheep that were raised in that country. In the light of the above the best-informed writers on sheep husbandry credit Spain with having bred the first merino sheep. This is still further strengthened by the fact that when the merino sheep of Spain first attracted the attention of other nations, the breed was found in nearly all parts of that country which in separate districts appeared as different varieties, brought about by special breeding, different feed, soil and climate. The flocks were only owned by the king, nobles and clergy. So important was the industry looked upon that it had preference over all others; that is, cultivators of arable lands were, by law, compelled to have broad roads through their estates for the passage of the flocks during the seasons in search of pasture.

It is not a disputed point that the Romans brought with them to England the first lessons in the use and manufacture of wool. Primitive and rude as they were, they formed the basis of an industry second to none in the Island Kingdom, which succeeding Governments guarded with a most jealous care. This fostering care was strictly maintained until inventive genius made so many improvements in the machinery used in its manufacture as to cause the country to throw down the gauntlet and proclaim free wool and free woolsens to the world. History states that as early as the year 1261 England, by statute, prohibited the exporting of raw wool or the wearing within her borders of any woolen goods manufactured in another country. Several amendments were made to the above, all in the direction of more stringent prohibitory laws, up to the year 1660, when what is considered perfection in that respect was accomplished. This latter statute was kept in force up to 1802, when for the first time a tariff law was enacted admitting raw wool into the country by the payment of an import duty of 6d. per pound. In 1824 this tariff was taken off and all foreign raw wools were admitted free.

It was in 1329, during the reign of Edward III, that the English woolen trade was firmly established, settling at Worsted in Norfolk. By royal decree he invited skilled artisans in that industry to come into England, Ireland, Wales and Scotland, and guaranteed them ample protection to prosecute their calling. By this means many were induced to settle in the Island Kingdom. While the king was thus laudably building up the industry of manufacturing woolen goods, the magistrates of Bristol were busy trying to thwart him in his noble endeavors. One of the persecutions of these magistrates gave to us the word blanket for a woolen fabric. A leading Eastern woolen journal commenting on its origin says: "In 1342 the magistrates of Bristol, England, prosecuted with exactions Thomas Blanket and some other citizens, who, taking advantage of the influx of immigrant Flemings, had set up looms in their own houses, and hired weavers and other workmen to commence making woolen cloth. Blanket appealed to the king. In the king's letter to the corporation he says: 'Considering that the manufacture may turn out to the great advantage of us and all the people of our kingdom, you (the mayor) are to permit the ma-

chines to be erected in their houses at their choice, without making on that account any reproach, hindrance or undue exaction.' This mandate put a stop to the rapacity of the corporation. From this Thomas Blanket the name of the well-known fabric is supposed to have been taken." It was during the reign of Edward III that the Order of Golden Fleece was instituted by the Duke of Burgundy, in commemoration of the great beneficial results which had followed so liberal a policy in building up the woolen industry.

It was not until the year 1608 that any decided attempt to dye woolen cloths was made in England; and six years later, or in 1614, mixed yarns, "dye in the wool," were first successfully made and introduced in manufactures. It was the latter that gave to the world the expression "dye in the wool" (denoting deep convictions and unvarying opinions), for dyed woolen goods did not hold their colors as well as did the cloths made from yarn previously dyed.

To illustrate better the statutory laws to protect the woolen industry in England, it is best to trace the more stringent. In 1678 it was made obligatory, by severe penalties, to have all corpses buried in woolen shrouds. This statute remained in force up to the year 1808, when it was repealed. This law, history states, did no little good in promoting the wool growing and wool-manufacturing industries, but history is silent on the point whether the law afforded comfort to English citizens in the knowledge that after their death their earthly remains would be consigned to Mother Earth enshrouded in a suit of woolen cloths. The American colonies seeing with justified jealousy the great benefits flowing from the woolen industry, were keenly alive to the encouragement of woolen manufacture in their midst. The Assembly of Virginia went so far in this direction as to pass a law in 1684 for its encouragement, but England not only promptly annulled the law, but went so far in 1699 as to prohibit, under heavy penalties, the exporting of wool or woolen manufactures from the colonies. This no doubt was instigated by Governor Nicholson of Virginia, in the year 1693, suggesting to the English Crown that cloth-making should be prohibited in the colonies. The example of Governor Nicholson was soon followed by the other colonial Governors. Notwithstanding the prohibitory law, we find that in 1731 the English Government had instituted inquiries to ascertain to what extent colonial manufactures were injuring English manufactures. This was followed by a law enacted in 1750 prohibiting the exporting from England of any utensil or machinery used in the manufacture of woolen goods. This was evidently done to keep back the industry in the colonies, so rapid had been its development.

In the year 1700 the wool clip of England was only about 10,000,000 pounds, and the value of her woolen manufactures about \$40,000,000. In 1844 her woolen manufactures had increased to over \$120,000,000, and the exports of woolen goods aggregated in value about \$40,000,000. Fifteen years later, or in 1859, the exports alone reached in value over \$75,000,000, while the wool clip was 250,000,000 pounds, and the imports of raw wools 110,000,000 pounds. In 1860 the average weight per fleece in the United Kingdom was five pounds.

As the woolen-manufacturing industry grew in England, the tastes of the people became more cultivated, and consequently the demand for a greater variety of woolen fabrics, which naturally led to special breeding of sheep. This naturally led to the introduction of the merinos for finer wools. They were first brought into England toward the close of the 18th century. At first they were bred distinct, but the experiment proved that the soil, climate and feed of England were against them, although the fleece did not degenerate much, and as their carcasses, which is naturally ill-formed and giving but little weight in meat, did not improve, they were crossed with the native sheep, giving the best of results. There are almost endless varieties of breeds of sheep in England taking the names of the particular locality where first bred. The principal are the Lincoln, Leicester, Cotswold, Down, Welsh and Shetland. The first three are known as "long-wooled" sheep, of which the Lincoln appears now to be the favorite. Manufacturers prefer it in the making up of luster goods, in imitation of alpaca fabrics, owing to its being long and silky, although somewhat coarse. For combing, manufacturers hold the Leicester in high esteem. It is long and finer than the former, but not soft and silky. The Cotswold is similar to the Leicester, but being harsher, is not suited for luster goods. What is known as Highland wool is shorn from a breed of sheep having long-stapled wool, but coarse. By crossing with finer-wooled sheep, the quality is capable of being largely improved. Of the short-wooled sheep, the principal breed is the Downs, of which there is an almost endless variety, but all partake more or less of the same peculiar characteristics, being governed largely by the soil and climate. The Southdown is a short-stapled, small fibered wool, the longer being used for combing and the shorter for the manufacture of light woolen goods, such as flannel. The Hampshire Down differs from it, being coarser and of longer staple. Oxford Down is even coarser and longer than the last named. The Norfolk Down is finer and of a considerably more valuable character. The Shropshire Down is coming to the front for both wool and meat. The staple is longer and has more luster than any of the other breed of Downs. The

Ryeland breed is about extinct. The Welsh and Shetland have a hair-like texture, but are deficient in the spiral form which is so valuable in the manufacture of high-classed woolen goods. Of the intermediate wools, the Dorset and Cheviots are the most valuable. The former is soft and longer than that of the Downs, but it is not quite so fine. The Cheviot wool is of medium length, small and fine haired, and very valuable in the manufacture of woolen and worsted goods.

POULTRY YARD.

Poultry Diseases and Their Prevention.

EDITORS PRESS:—The diseases of fowls, especially those in confinement, are many, and I regret to say but little understood, many being satisfied to class them all under the designations of roup and cholera. Not long since I was much troubled with lameness among my fowls, and after persistent endeavors to ascertain the true cause and its cure, came to the conclusion that it must be rheumatism, but even after coming to this conclusion, I found myself unable to remedy it. In the greater number of cases the fowls would die, some completely recovering. As the result of inquiry, I learned that "if I would dissect a fowl which had died of this lameness I would find that the cause had its seat in the liver;" but as for a long time I have not had anything more of the kind, I have made no further effort to learn if that was a true solution of the difficulty or not. I am willing to believe that it was, and should any more cases occur I would treat them as for that.

As I have before said, I now say again, that the treatment of the diseases of fowls should form a part of the veterinary surgeon's fitness for his profession, and I regard this as a somewhat modest proposition, as I might have said that there ought, in justice to the importance of the poultry interest in its present proportions even, to be properly educated "mediciners," men or women thoroughly versed in the diseases of fowls, their causes and modes of prevention and cure, and in the near future I have no doubt there will be, as the people are becoming more and more aware that a "hen" is something worthy of care and proper treatment, as it repays it as generously as any other animal.

I don't mean by this that a hen is worth as much as a horse or a cow, but I do mean that fowls are worthy of consideration and good treatment, and that they amply repay it, and I do not believe that there is any legitimate business that will give more ample returns for the amount invested than a properly kept poultry-yard. As this fact is becoming recognized more and more each year, and the business taking on greater proportions and more thorough system, it becomes more and more evident that a yard of valuable fowls are as well worth an effort to save as a valuable horse or cow, and that the slipshod way of inquiring of this one and that if they know what is the matter with their fowls, and what to do for them, doesn't fill the bill altogether as well as would the services of a competent "fowl doctor"—one who knows just what is the matter and just how to treat it.

As it is, we have no better way than to seek information through the columns of the press, inviting some brother poultry man to answer our inquiry, and comparing notes and exchanging information with him for mutual benefit and relief. It is not a bad way, but in a dangerous emergency the other would be better and might prevent the loss of the entire yard of fowls and the consequent retiring in disgust from the poultry business, which is no uncommon thing.

Perhaps all this is a digression and doesn't properly come within the meaning of this article, which was to answer the inquiry, "What is the matter with my hens?" which appeared some three weeks since in the Rural. In accordance with your request, I will throw what light I can upon the difficulty which your correspondent labors under. The same difficulty has occurred with me, and I found in my case the proper treatment to be to get rid of my ducks the first thing and then see that my fowls had a constant supply of fresh, clean water kept in the shade; less soft food—that is, less bran mush (and not less green stuff) and more dry grain, with a plentiful supply of coarse, sharp sand or fine gravel, and a supply of charcoal broken up so that they could swallow it easily, and of coarse ground shells and bones, which I keep by them always. I also lessened the quantity of (dry grain and mush) feed in the day, giving all the green stuff and vegetables they could eat, together with animal food and milk as usual, and the difficulty gradually disappeared. Besides this, their houses and runs, if yarded, should be kept thoroughly clean and whitewashed and carbolic acid used plentifully. If your correspondent will observe patiently and persistently these directions, I have no doubt of his being able to do away with the difficulty he labors under.

Plymouth Rocks are hearty feeders, and if allowed to eat all they wish, particularly of soft feed (mush), are liable to go about twisting their necks and trying to apparently swallow their food with their crops enlarged and protruding, and if not attended to will finally stagger around dizzily and soon die.

All fowls should be carefully supplied with a

constant (not intermittent) supply of fresh, clean, cool water, and not allowed to drink filthy water or water that ducks have access to, or they will be very liable to get, as your correspondent's hens have done, "sick and vomiting dirty water;" and so far as my experience goes, and from the light I have been able to get from "brother poultrymen," I find that particular and scrupulous care as to food, water and cleanliness is absolutely necessary to the successful keeping of poultry as a business.

I do not find it necessary to dose my fowls, as many think needful, but have learned to think that, like humanity, they are better off without it. In sickness, of course, they need treatment; but as a general proposition it is better to keep them well by proper attention to all their needs, the principal thing being strict cleanliness in everything about them and of course a proper attention to variety in feed.

Lodi,

T. B. GEFFROY.

THE DAIRY.

Dairying in California.

EDITORS PRESS:—In renewing my subscription for the Rural Press, I will write respecting the dairy interests in this State as suggested by lately reading Mr. Hegler's (firm of Hegler, Johnson & Co., S. F.) observations while traveling over Eastern dairying localities, and more lately the communication of R. P. McGlinchey of San Jose, who has had many years of experience in the leading dairy section of Northern Illinois. The dairy interests of this State cannot go astray in being guided by such reading.

The time has arrived when co-operation should begin. Even now, with the away-down prices of dairy products, it is the only way known to those persons of experience by which the present milk-producer's return can be advanced from three to five cents per pound for his butter or cheese. The writer knows of many large ranches subdivided into dairying, each lessee independent of the other, who would do better if they took their milk to a central point, in co-operation, having a first-class butter and cheese maker to make either butter or cheese as paid best for the time being. They could thus use the centrifugal process for the butter-making. The deep-setting method has the disadvantage of inconvenience, and ice is too dear for its use here. They could also have the latest improved implements and storage capacity for holding either make temporarily, and most surely patrons could not regret the change.

It is a significant fact that this co-operative effort should appear so encouraging as to have been lately started in the northern part of this State and Oregon by Eastern men, and we read within the week past the intention of Chicago parties to establish factories in six different localities of this State.

As to the skim milk, it would seem to be in its best condition while sweet, for using by young stock, and by the centrifugal process skim milk is soon obtained for such use. The best band of calves seen by the writer on this coast had centrifugal skim milk and growing grass, the dairyman using the skim milk from the first. He introduced an improvement by dividing the skim milk which would be used morning and night into three rations, making a midday feed, which in any case pays the extra labor in avoiding the extreme hunger and over-eating, and thus preventing the irregularity sometimes experienced.

There is a movement in the Eastern States very rapidly coming into favor, that of using silage, and I saw very strong proof thereof in lately reading in the *Pittsburg, Pa., Stockman* the results of a convention in Cleveland, Ohio. It was held to be very advantageous there, and it would be even more so here in bridging over the dry season with the usual highest prices for dairy products. I take a deep interest in the dairy production of this State, and trust that prosperity may ever attend those engaged in it.

Advance, Tulare Co.

J. C. FAY.

Queries from Arizona.

EDITORS PRESS:—Will some of the readers of the Rural who are practical dairymen please answer the following questions for the benefit of range cattle-feeders of Salt River valley? All along the coast, from Puget Sound to San Diego, are practical dairymen, and most of them read the Rural, too. If those who feed alone on alfalfa can give their figures, so much the better:

1st. How much butter (or cheese) is an average product per cow per year?

2d. What is the average cash price of product per cow, or, in other words, how much does a cow produce per year, gross or net?

3d. How many cows to the hand in a large dairy?

4th. What is the average value of a dairy calf as a yearling?

Tempe, A. T.

GEO. KAY MILLER.

HARDENED STEEL TOOLS.—The *Scientific American* says that hardness on steel tools, almost equal to that of the diamond, is obtained by plunging them when white-hot into sealing-wax, repeating the operation until the steel is too cold to enter the wax. The tool is then just touched with oil of turpentine.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Grass Valley Public Installation.....April 27
Napa, public meeting to reorganize Grange,
Court House, 11 A. M. Addresses by State
Chaplain S. Goodenough and others.....April 27
Tulare Picnic, Goldman's Grove.....May 4
San Joaquin Co. Patrons' Picnic, Lodi.....May 9
Butte Mt. Pomona, Masonic hall, Yuba City.....June 29
Sonoma Co. Pomona, Santa Rosa.....July 17
Elk Grove, third and fourth degrees.....May 4
Grangers' Picnic, Beach's Grove, Sacramento.....May 2
Yuba City Grange Picnic.....May 14
San Joaquin Co. Pomona, Lodi hall, Lodi.....May 25
Bennett Valley Picnic.....May 25
State Grange, Sacramento.....Oct. 1

Oregon.

Lane Co. Pomona, Mt. Holly Grange.....May 4
State Grange, Salem.....May 28

Some Things in Our Supplement.

In our Grange edition to-day the following matters of interest are mentioned at more or less length:

Initiation, Harvest Feast and public meeting at Temescal Grange, Oakland.
Woman's Work in the Grange—Letter from Sister Addie S. Hale of Connecticut.
Meeting at Music hall, S. F., for exemplification of unwritten work.
List of committees in Oregon State Grange.
Patrons' party at Santa Rosa.
Turner Grange meeting, Oregon.
Continuation of report of Deputies' Meeting.
Letter from W. M., Overhiser.
Work in Oregon.

SUBSCRIBERS who are Patrons, or feel interested in the Grange should bear in mind that, upon application, they can receive the Grange edition of the Pacific Rural Press, containing two or more extra pages of Grange news, in place of the regular edition, without extra cost or the loss of any considerable amount of valuable reading or advertising matter.

From the Worthy Master.

MESSEURS. EDITORS:—I arrived home last evening about 9 o'clock after an absence of three days on Grange visitations. Went to Sacramento Thursday; stopped over night with Bro. Flint. Friday morning Bro. Flint left on train for Watsonville and Sister Flint and niece accompanied me to Enterprise Grange; had a good meeting and lunch with about 100 Grangers present. Returned to Bro. Flint's home about 6 P. M.; remained over night. Saturday morning met Bro. E. Davis, O. of S. Grange, at the capitol as per previous arrangement; took the 11:40 o'clock train for Elk Grove. Bro. D. and lady friend accompanied me; attended Elk Grove Grange; had a good meeting; initiated a lady candidate in the first and conferred the second on her; then conferred the third and fourth degrees on Bro. McConnel's youngest daughter and one other lady candidate. Bro. D. delivered a short address. I then answered a few questions in regard to the work and promised to be with them on the 4th of May to confer the third and fourth degrees on a class with the new rituals. A letter from Bro. Hale, Master of Connecticut State G., informs me that should the N. G. hold its next meeting in Cal., and the rates be reasonable, from 50 to 100 Grangers would no doubt attend from his section. I found the members of Sacramento county all in favor of holding the State Grange in Sacramento at the usual time. Yours fraternally,

W. L. OVERHISER.

Stockton, April 21.

The Farmers' Conference at Napa.

As elsewhere noted, the farmers of Napa valley and their families are invited to assemble at the courthouse, Napa, at 11 A. M., Saturday, April 27th, for a pleasant gathering and conference on their special interests. The following program is suggested, subject to the will of the meeting:

1. An opening address by the chairman, W. A. Fisher, announcing the objects of the meeting.
 2. A song, "The World Would be the Better for It," by James G. Clark, the well-known poet and singer from Minneapolis.
 3. "Some Grange Ideas," a brief address by S. Goodenough, Chaplain of the State Grange of California, who is fully competent to speak on the subject of brains and farming.
 4. A select song from his own compositions by Prof. Clark, with Grange song or chorus by the audience.
 5. Five to ten minute speeches by local and visiting speakers on the subject of the Grange and co-operation by farmers.
- A recess will probably be declared for lunch, and afterwards the matter of organizing a Grange taken up. All farmers are invited to attend the meeting without further notice.

Watsonville Grange.

From Worthy Lecturer Flint.

MESSEURS. EDITORS:—On Friday, the 19th, I accomplished an acrobatic feat in division that I never attempted before; that is, I put myself in two places at the same time. While I was on my way to Watsonville, my better-half was in attendance at Enterprise Grange.

The Master of the State Grange came over to visit Enterprise, and as I did not want to see him disappointed, I furnished him with my best team and something to fill the seats, Mrs. F. and my niece. They gracefully condescended to take me to the depot and help me out of town. As the Master turned to drive away, he saw the advantage he had of me, and his smile and gesture were those of the accomplished French dancing-master.

He had already acquired such a control over his fair companions that they joined him in thrusting their javelins of ridicule at me without mercy.

I offered to furnish him with a driver, but he seemed to want to do something to remind him of his earlier life, when he wore knee-breeches and a silver band on his hat.

Thursday evening, when Bro. Overhiser and Overseer of State Grange Davis were taking dinner with us, he said, "Are you aware how many officials of the State Grange are present?" At first thought we said three, Master, Overseer and Lecturer. He said eight—Master, Overseer, Lecturer, Past Master, two Past Lecturers, one Past Overseer, one Past Executive Committee-man.

Bro. Davis, although not a well man, has greatly improved in health and looks, and we fervently hope may be able to fill his place at the next State Grange.

It seems good to have a Patron around that can enter into full contest with us and encourage us in our work.

Arriving at Watsonville about 7 o'clock P. M., via Lathrop, Niles and San Jose, I found Bro. Roache and his little daughter awaiting me, when I was greeted in the style of a true Patron. After a three or four-mile ride to the north, up slightly rolling ground, we arrived at their pleasant cottage, where I met Sister Roache. What the voice and face lacked in the full expression of her feelings was fully made up by the fraternal clasp of mine between her right and left.

The view from their front yard in the morning I thought a complete one. The peculiar ingredients of their soil had brought out the most delicate tints of the flowers, which were abundant in number and variety. The view was grand and fascinating. The background was made up of high, grassy hills covered with tall evergreen trees, while the other side sloped away to the ocean whose perpetual roar can be heard for miles away.

Bro. Roache gave me a fine drive through the town and outskirts before the opening of the Grange. Fine soil, fine climate, thrift, enterprise and intelligence are the characteristics of Watsonville.

A class of 15 was advanced to the third and fourth degree. This Grange is doing splendidly, considering the condition it was in a few months ago. No Grange can permanently prosper without a live Master. This Grange should feel proud of having one that is full of good words and works, and I bespeak for it one of the foremost on the list.

The lunch consisted of delicious large strawberries, ice-cream and cakes. Then came the musical and literary exercises, which were of a high order. Short speeches were made by I. C. Steele, Flint, Roache, Hill and others. Five or six Granges were represented, even as far away as Merced and Sacramento.

I had the pleasure of meeting a large number of the old members who had been careless in the attendance of the Grange, and who expressed a desire to be more attentive in the future.

If there be any such thing as making Watsonville Grange successful, its present Master and her worthy husband are the parties who will do it. I hope its members will appreciate the time and thought that she has expended toward that end. D. F.

DR. THOMAS FLINT, Treasurer of Holister Grange, informs us that they are doing well. They hold two meetings a month and have added 24 new members, so that they now number about 40. Other applications have been acted on, so that they will soon develop good strength.

GILROY GRANGE holds a meeting at 2 P. M., Saturday, April 27th, which every member and sojourning Patron should be sure to attend. Matters of importance will be discussed.

San Jose Grange and Fruit-Sales.

Worthy Master O. F. Alley dropped the gavel to call San Jose Grange to labor at 10:30 precisely yesterday morning, and within a few minutes there was gathered in the usual attendance of Grangers. At the stage of proceeding when it is proper to introduce matters of general Grange interest, H. A. Brainard, the Secretary, read some letters he had received from the Vermont Maple-Sugar Exchange, and showed some samples of extra-fine sugar and syrup which he had received from there. The Grange made up an order to send, thus putting in practice their theory of putting producer and consumer near together. The Secretary was directed to keep the order open till next Saturday, to accommodate those absent.

The regular question for discussion being "Plans for the disposal of the Fruit Crop," D. C. Feeley said he was aware that the crop this year seemed especially large; as regards prunes it seemed as if it must be enormous. He said that the fruit driers who were seeking to purchase would make the most of this and buy at low prices if they bought at all. He thought that if we could get information from the different State Granges it would do much good. Take such a State as Texas, for instance. There are a great many Granges in it, and they are a people who will use a great deal of fruit if they could get it cheap. If we can correspond with them and reach them, we can dispose of a great deal of our fruit directly.

M. Wingate said he did not propose to go into details, but in such instances as that which came up the other day, when the producer got eight cents for fruit which cost the consumer 30, there was something wrong, and we must try to correct this wrong in some way. The way things go now is pretty strong evidence that there are too many things between the producer and consumer which must be supported, and this hurts both the parties most interested.

Capt. Dunn said the Fruit Union was organized to help the grower, but the first year it did not do it. There was some sort of an obstacle at Chicago, which was a distributing point. It was found by a man who went to see that the grapes which he sold for two cents were retailed at 30 cents.

A. Vollmer said he had formerly been an Eastern grocer, and he still receives a great many price-lists, and he found there was too much difference between Eastern prices and those here. He said he had paid 18 cents per pound for Silver prunes in ten-pound tins, and of course he had to charge a profit on that.

Mr. Feeley and John Gilman spoke further, and the latter gentleman thought that the farmers were too often the victims of tradesmen.

Henry Sears said the object seemed to be to keep our fruit from competing against itself. Dealers there were satisfied to pay a fair price, only they did not like to pay one price to-day and have some one else come in and offer to sell a cent or two lower the next day. It hurts their trade, and would hurt the trade of the producer.

Mr. Wingate thought they tried to make our organizations on too large a scale. We should try to sell one carload this year, and that would open the way for several next year. Several others expressed similar views.

Attention was called to the importance of thinning fruit when too thick.

Miss Francis favored the Grange with a selection of instrumental music.—Mercury, April 22.

Colorado and the Twine Trust.

The Executive Committee of the Colorado State Grange has drawn up the following resolution:

WHEREAS, There has been formed in the United States a combination or "trust" called the "Twine Trust;" and

Whereas, The object of said trust seems to be to extort from the farmers and other users of twine an unjust and exorbitant price for the same; now therefore be it

Resolved, That our Worthy State Master be requested to ask our Worthy Master of the National Grange, Bro. J. H. Brigham of Ohio, to issue a proclamation, immediately, asking all the Patrons of the subordinate Granges in the United States and Canada to take immediate action in regard to this "Twine Trust," and if they cannot secure fair rates for twine, then that they so arrange their harvest machinery that they may discard the use of it entirely.

"HAYFORK" COULTER, who victimized many Yolo, Solano and Colusa county farmers a year or two ago, is in trouble, this time at Montpelier, Vt. He had dropped the hayfork swindle and was selling the Yankees a patent maple-sugar reducer. The same mode of securing promissory notes was

used, and he succeeded in roping in several hundred of the Green-mountain boys before the law got its clutches on him. He tried to escape into Canada, but did not succeed in getting nearer than ten miles from the line. The papers of Montpelier seem to think that the people have a "dead thing" on Coulter. We thought so here, too, but the slippery fellow escaped just the same.—Yolo Mail.

Sonoma County Pomona.

It pays to feed an editor, as the following extract from the Santa Rosa Republican shows:

Pomona Grange is in session to-day, April 18. It is composed of the officers of subordinate Granges and delegates therefrom. Its meetings are quarterly. At the meeting to-day all the officers and delegates except one were present, Jonathan Roberts, the Master, presided and the usual business was transacted.

There was one feature of the meeting that the writer specially enjoyed. It was the feast. At a few minutes past 12 the banquet was announced, and the editors of the city papers were favored with an invitation to be present. We were there. We usually respond to such invitations. Bro. Sheward is another editor who scarcely ever declines an invitation to eat, and he too was present. The table was loaded with the good things of this land. How the Grangers and their guests did enjoy the occasion.

There are four subordinate Granges in Sonoma county. All are reported in good condition. In these meetings our farmers and their good wives talk over matters of special interest to themselves. Also, it gives them an opportunity to become better acquainted and to enjoy themselves socially. The Grange is a good institution. More people should belong to it.

Persistent and Lawless.

At a meeting of the Sacramento supervisors April 22d, the following letter from U. S. District Attorney Carey was read, and action was taken as he suggested:

SAN FRANCISCO, April 20, 1889.

To the Honorable Board of Supervisors of Sacramento County—GENTLEMEN: Every possible effort has been made by the Government to stop hydraulic mining, hurtful to the navigability of the Yuba, Feather and Sacramento rivers. Actions have been instituted and injunctions issued against all persons operating hydraulic mines on the water-sheds of those rivers, against whom sufficient evidence could be obtained to warrant the issuance of injunctions.

As I am informed, since the trial of The People vs. Gold Run (66 Cal. 138), hydraulic mining has been practically suspended on the American and Bear rivers. I have indefinite information still, from such a reliable source to induce me to address your honorable body upon the subject, that since the commencement of the present season, hydraulic mines are being operated at Liberty Hill, Gold Run, Dutch Flat, Iowa Hill, Michigan Bluff and Forest Hill. I am informed that the condition of the waters coming from these water-sheds into the river below indicates the existence of active hydraulic mining; that they are debris-laden to an extent not seen since the trial of the Gold Run case.

What information I have is confidential and cannot be used, and is insufficient in itself to warrant proceedings. I am further informed that the operators have a system of guards, telephones, and precautions to prevent the presence of a stranger in that section without it being instantly made known to the entire mining district thereabouts. That everybody connected with them is absolutely intimidated to such an extent that it is impossible to obtain information. That no one is permitted to visit or inspect the mines, and that it is hazardous for anyone to make the attempt in daytime or night, and that it is believed that personal violence would be done any one making the attempt. That owing to this condition of affairs it is impossible to get the necessary information to warrant proceedings. It has occurred to me that the information might be obtained if a sufficient reward were offered to induce persons to secure the evidence at all hazards. I have no means at hand and have no authority to offer a reward on behalf of the Government. It has occurred to me that your honorable board has always taken a very great interest and an active part in stopping hydraulic mining, and that in this matter you are more immediately interested in the working of the American river mines than any other county, and would, in self-protection, lend every encouragement possible to effectually carry out the purpose and policy of Congress to protect the navigability of the Sacramento and other rivers.

I therefore suggest the propriety of your county offering a reward of from \$250 to \$500 for the detection of these mines, or either of them, in active operation, and for supplying sufficient information thereof to warrant proceedings by injunction. The effect of offering a reward might be efficacious in itself, and so intimidate the owners and operatives as to put a stop to hydraulic mining in that section. I will be pleased to have your co-operation in this matter. Very respectfully,

JOHN T. CAREY, United States Attorney.

Since the above was put in type, Wednesday, word comes from Marysville that in the Superior Court 20 Chinese hydraulickers arrested at Omega have been found guilty of contempt of Court in violating the anti-debris injunction and fined \$500 each, with the option of 500 days' imprisonment. All were remanded to jail. It is thought that the fines will be paid.

The Wilber Colony Swindle.

The workers of that scandalous "colony" fraud, some account of which was given in the Rural Press of March 23d, are a shifty gang. Some of them have been following in the track of "California on Wheels," and distributing their deceitful literature where our roving exhibit has awakened interest. The Red Bluff Sentinel says:

The California and Southern Land Trust Company has not ceased its scheme to dupe innocent people in the East. It has modified its circulars so that Tehama county is not mentioned, and W. H. Whetstone, who found it too warm to remain in Red Bluff, has transferred his base of operations to San Francisco.

The swindle was investigated and denounced by the Board of Trade of Tehama county, and now the concern gives no clue as to whereabouts in the Sacramento valley their 100,000 (?) acres of land is located. They advertised the same amount of land in Tehama county, and actually owned one section—640 acres.

John Q. Brown, General Manager of the State Board of Trade, by order of the Executive Committee, has issued instructions to the parties in charge of the "California on Wheels" now traveling through the East, to answer all inquiries relating to the California and Southern Land Trust Company, by unqualified condemnation of the schemes of that company.

A private letter from Red Bluff to the *Record-Union* states that "Whetstone," while in Tehama county, worked exclusively upon Eastern people, sending out letters and circulars at the rate of 500 to 1000 a week, until the Board of Trade condemned the scheme and he left. His circular contained the same pictures and much of the descriptive matter found in the circulars sent from the East by those in charge of the traveling exhibition, is on paper of the same color, and was undoubtedly printed on the same press. But the scheme advertised in the Red Bluff circular is "The Great Wilber Colony," which is described as being "within ten minutes' ride of the county seat of Tehama county, which is a city of 7000 population, with gas, electric lights, water works, large manufacturing industries, and situated in the most productive district on the face of the earth—the great Sacramento valley," etc.

Persons who are intending to purchase land in California can hardly be too cautious in procedure. Let them see the ground for themselves, ascertain that the party who proposes to get their money has a clear title, and be sure that the deed given actually relates to the tract which they suppose themselves to be buying, else they are liable to fall a prey to some shrewd, unconscionable, smooth-tongued sharper.

Jockeying the Fairs.

Apropos of the organizing of Agricultural District No. 20, the Auburn *Republican* delivers a discourse which may be read with profit in other counties besides Placer:

Most people like to see horse-racing better than they like to gaze upon fine fruit, mammoth vegetables or the most intricate designs of the crazy quill; and therefore what Josh Billings used to call "the agricultural boss race" is the usual adjunct of the county fair, being specially designed to draw the crowds. It does draw, but we protest that it does not draw the kind of crowd the people want, and that so far as the district fair is concerned it ought to be dispensed with. Almost everybody concurs in the belief that horse-racing as usually managed on such occasions is a bad thing, but somehow they insist that we must have it. We hope this foolish idea will be abandoned in this district.

Those who know anything about it take very little interest in racing, because they understand perfectly that it is not honestly conducted. Its "drawing" quality is confined to professional sports, gamblers, and a gang of following sharpers and thieves, who seize the opportunity to "work" a town in every manner, from the ordinary forms of swindling to burglary. We would rather have a smaller crowd at our fairs and a little better company.

In the next place, it's too expensive. Our district has a liberal appropriation from the State treasury, and that, together with what can be raised by private subscriptions and entrance fees, will be enough to insure a good fair for all legitimate purposes. A racetrack and stables cost lots of money, and it seems like folly to go to so great an expense and involve ourselves in debt to make up purses for cut-and-dried races, especially when the money is all to be taken out of the county. If the races were limited to district horses, that would be another matter, for one object of our fairs is to receive and distribute, for the encouragement of our industrial pursuits, money donated by the State. The business should be so managed that our own people shall be winners and not losers. It is said that the horsemen who go the circuit of the annual fairs make up everything among themselves long beforehand and just as soon as they receive the dates and programs. It would be arranged by them, for example, that A, B and C should take certain of their horses to the Placer fair—just enough to fill the program—and that A should be allowed to win one-third, B one-third and C one-third, or some other proportion of the purses would be agreed upon according to the expenses of each stable and the size of the purses to be divided in some

other district. Now isn't it foolishness to strain ourselves to pay out \$10,000 or \$12,000 a year to a jockey syndicate like that?

At one of the Seventeenth District races two years ago, a little incident occurred which illustrates very well how this horse-racing is conducted. A "turf-man" entered a trotter owned by himself in a certain race. Just before it was trotted he bought pools to the amount of \$300 or \$400 against his own horse. Then he took a few drinks and awaited the event with all the self-complaisance and satisfaction of a man who feels that he has done a fair day's work by 11 o'clock in the morning. But, through some mismanagement or misunderstanding with the driver, this man's horse won three straight heats, and he, realizing only the fact that he had lost his money and not that he was giving himself away, marched up to the judge's stand and vehemently protested against the race! We think the District can get along very well without any agricultural horse-races if the Directors will only think so too.

Further from Napa City.

In addition to our report of the farmers' meeting at Napa, published last week, the following is of interest:

Upon request of the meeting, Bro. Webster delivered an address on the purposes and accomplishments of the Order of Patrons of Husbandry. The speaker alluded to the condition of the agricultural class anterior to the organization of Farmers' Clubs and the Grange, and explained how much had been gained in business experience and general knowledge, even if they were not always successful in business enterprises. As would be natural to expect, some enterprises had failed, while others had succeeded; among the latter was the Grangers' Bank in this State, which had accomplished a good purpose in securing a material reduction of interest on money, and had established a precedent in enabling farmers to obtain loans on grain in store-houses. He showed what laws had been enacted under Grange influence in other parts of the Union, among them one of the most important, that which affects our commerce—the law passed by the Wisconsin Legislature, regulating fares and freights on railways, steamships, etc. This law had been sustained by the Supreme Court, establishing the principle that States can control such matters. The raising of agriculture to its proper station by impressing Congress with the propriety of having it represented by a membership in the President's Cabinet, was alluded to as a Grange measure. The Hatch bill, requiring the establishment of Government Experimental Stations in the various States and Territories, to test the character of the soil and climate of each respective locality, in order to definitely determine for what products they were best adapted, was a Grange measure which would prove of incalculable benefit to many who could neither afford time nor money to join the Grange. While he was able to point out much that had been accomplished by co-operation in the Grange, it was little compared to what could and should be done if the farmers would only wake up and do their duty.

The speaker's clear and earnest expressions evidently carried conviction to those who before had seemed to doubt, or failed to comprehend, that the Grange had ever effected any good whatever, and an invitation was at once extended to Bro. Webster to return one week later and address the farmers of Napa valley, assuring him of a large attendance; but his private affairs would not permit him to accept the invitation.

Remarks were called for from Messrs. Dewey and Logan, who responded briefly, to the end that though disappointed in not being able to effect the organization of a Grange at that time, they had no doubt of the ultimate success of the movement. They believed that at the meeting then and there decided to be held two weeks later, in the south room of the Court House, the Grange would be reorganized with a large and worthy membership. All it needed was more confidence by farmers in themselves and in one another.

Several members of the meeting then gave their pledges to circulate the announcement of the meeting on Saturday, April 27th, at 11 o'clock A. M., in the south courtroom, and expressed confidence that it would be well attended by the farmers of Napa valley.

San Joaquin Co. Patrons' Picnic.

MESSRS. EDITORS:—The picnic for San Joaquin county's Patrons of Husbandry has been fixed at Lodi, on Thursday, the 9th day of May, 1889, commencing at 9 o'clock A. M. All the State Grange officers are cordially invited to be present. Will send a program as soon as we get one made out. Lodi, April 17. J. D. HUFFMAN.

New Life at Grass Valley.

MESSRS. EDITORS:—Magnolia Grange met last Saturday, had about 20 in number. We gave one sister her first degree in the Order. It has been some time since we took in a member. We have been on a standstill for some time, but I think we will prosper yet. Although we live so far apart that it is very hard to keep a Grange going lively all the time, still I hope to see the time when we can have some rousing good meetings. We have had a goodly number in our Grange, but we have had to expel and suspend so many for non-payment of dues that it makes things look dull, yet I think 20 members who are Grangers at heart are worth more to the cause than twice the number that never will pay their dues.

Now, in regard to our part of the country, it is not an agricultural county only where we can get water to irrigate with; then we can raise anything, but I don't think there is any place that is better for pears and grapes, and we raise a good, fair apple. There is no one of our weekly and monthly papers that I could do without. I see in the Press that you have a little book you call "Hints and Help" for 10 cents. Send it to me. G. W. CUNNINGHAM.

Grass Valley, Nevada Co., Cal., April 22d.

The Assistant Secretary of Agriculture.

We find in the *Farm and Fireside* the following sketch of the life of Hon. Edwin Willits, who is now duly installed as Assistant Secretary of Agriculture at Washington:

Hon. Edwin Willits, recently appointed Assistant Secretary of Agriculture, has been in public life many years. After graduating from the Michigan University he settled in Monroe City, where he studied law with Judge Christy, and was held in high esteem by that eminent jurist. After practicing law for several years, he was elected a member of Congress and served three terms with honor to himself and credit to his country. Always an earnest friend of education, he was elected, upon his retirement from Congress, to the Presidency of the Michigan State Normal School, which place he filled to the eminent satisfaction of all friends of education, until he resigned it to accept the more responsible position of President of the Michigan Agricultural College. It is in the latter position that his abilities have become most widely recognized. He has made the name of Michigan Agricultural College known to agriculturists the world over, attracting students even from far-away Japan. His keen appreciation of the needs of agriculture has endeared him to the farmers of Michigan and placed him in the front rank of the friends of scientific agriculture.

It was largely through his instrumentality that the bill establishing agricultural experiment stations was successfully carried through Congress. Wherever there has been work to be done, or assistance rendered in behalf of agriculture, President Willits has been found. He has filled all past positions with distinction, and we have reason to believe that his familiarity with methods of practical and scientific work will make him invaluable to the Department of Agriculture.

Oklahoma and Anarchy.

Only a few years ago it was popularly supposed that Uncle Sam had a farm for all his children and that their children's children for several generations would have no difficulty in getting a home, but the newspaper accounts of the undignified rush on the borders of Oklahoma, the numbers that are hastening there from nearly every State, the fact that for years men have risked conflicts with soldiers and Indians, the belief that blood will be shed by men who feel they have possessory rights with which tenderfeet must not interfere—these all tell a sad, sad story. It should be productive of good in turning the mind of the people to the fact that very little good free land is left. The hardships of the homesteader are too severe for him to locate upon poor land, unfavorably situated. American citizens should be interested in having many settlers and small farms. We are excitable, we crave society, we rush to the cities; we can obviate this by settling near each other in the country. We must hold on to all the land still available and prevent foreigners and corporations from getting possession of more. These large land grants are destructive of good government. The best way to disarm anarchists is to make it possible for each citizen to secure a home. While we have a large floating population, with no direct interest in our country, unable to obtain employment, regarding the more fortunate with envy, a logical argument against government or a satirical harangue upon the inequality of treatment between rich and poor, is sure to settle in ground prepared for it. The germs of dis-

ease are present in every person, but they kill only where the physical conditions favor their growth; we need not fear anarchy so long as we do not let our country become debilitated. Maintain our strength by keeping the possession of the land in many hands and we shall be safe.

No Division.

At the annual meeting of the Native Sons of the Golden West a patriotic resolution was passed against dividing our State. So long as Texas can exist and prosper without division, just so long ought we, the second largest State in the Union, to be satisfied. Our name, California, is like the trademark of a long established company. It is worth a great deal. From the excitement of '49 that word has signified a land of excessive wealth, of perpetual summer, and later of fruits and cozy homes. If we divide, which half would retain the name? Or should we have a north and south California to be followed by a north by west and south south-east division in the future? We are large, but traveling communication is improving. If we were one State in the days of slow travel, surely we can continue so under rapid transit. The German Empire has a strength, influence and importance which the States of which it is composed could never have obtained. Make two States of California and each would be less than one-half our present strength. Again, the southern half, especially, has been colonized. Men have come from the distant East to make their homes. Pioneers are not usually troubled with riches, and though the per capita wealth in Southern California is undoubtedly high, it would be a serious matter for many to pay over twice the present taxes on account of the State being broken in two. A division would mean the erection of new State buildings to accommodate Senators, Assemblymen, thieves, lunatics and the unfortunates and vicious of all kinds. Let us be content with what we have and not wreck our fair State by returning into the sea of division where we must pass the breakers of weakness and subject ourselves to the winds of popular discontent which arise in the desert of taxation.

"The Beautiful Hills."

The following is the last verse of the poem by the above title written over 20 years ago by James G. Clark, and sung by him so effectively at the Deputy Grange meeting, April 11th:

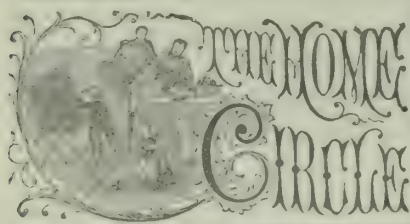
"Our arms are weak, yet we would not fling
To our feet this load of ours;
The winds of spring to the valleys sing,
And the turf replies with flowers.
And thus we learn on our wintry way
How a mightier arm controls:
That the breath of God on our lives will play
Till our bodies bloom to souls.
Then sing for the beautiful hills
That rise from the evergreen shore,
O sing for the beautiful hills
Where the weary shall toil no more."

WHY HE ISN'T SALOON KEEPING.—The other day a New York *Sun* reporter met a man who for years kept a well-known uptown grogshop. "I've given up the business; sold out and quit for good," said the ex-saloon-keeper. "I couldn't stand drunken men. Oh, I could handle them all right; I wasn't afraid of them, but the idea of taking so much money that deprives women and children of necessities and comforts was too much for me. I used to see poor fellows who got \$10 or \$12 a week come in of a Saturday and blow in half their earnings, and I knew that meant distress for hard-working women and innocent children. I couldn't keep on taking their money; it broke me up."

CALIFORNIANS AND RURAL LIFE.—Bro. I. A. Wilcox of Santa Clara county expresses his faith in the future of California in a recent personal letter to a friend of ours, as follows: I firmly believe that the influx of people into our State will be continued till all the choicest lands shall be appropriated and the country become very thickly settled. Ours is not like the Eastern part of the country. There the tendency is, and has been for the last half century, to people the towns to the neglect of the country. Here the ambition, the hope and expectation of the town people is to obtain a home in the country, and, if possible, enjoy rural life.

AT Enterprise Grange they do not do things by halves. As the Master-elect did not appear at the installation, E. J. Lynch was installed in his place.

A COMPANY has been incorporated with \$250,000 capital to build a railroad from Santa Ana to Newport beach, ten miles.



Peace.

[Written for the Rural Press by M. F. ROWE.]

When does the Lord give peace?
When, wandering far from Him, our joys decrease,
And, yearning for His love, to him we cry,
Then, by His precious blood, He draws us nigh,
And gives us joy and peace.

—Eph. 2: 13, 14.

When does the Lord give peace?
When the world's gilded toys our hands release,
And, weary of earth's joys, we turn to Him for rest,
He gently folds us in His loving breast
And gives us rest and peace.

—John 14: 27.

When does the Lord give peace?
When, at His word, the raging tempests cease,
And in His presence all is hushed and still;
When our wills bow submissive to His will,
Then He gives holy peace.

—Mark 4: 39.

When does the Lord give peace?
When all our hopeless, helpless struggles cease,
And self-life ends and when our minds are stayed
On Him alone, He speaks: "Be not afraid,"
And gives us perfect peace.

—Isa. 26: 3.

When does the Lord give peace?
When 'round our pathway beams of light increase,
And we walk gladly in His light and grace,
Then upon He lifts His shining face,
And gives us blessed peace.

—Num. 6: 26.

O blessed, holy peace,
That as a flowing river doth increase,
When we His blessed sweet commands obey,
And walk with Him in Wisdom's pleasant way,
Then have we His own peace.

Alameda.

The Foothills in Springtime.

[Written for the Rural Press by MINNIE E. SMITH.]

The hills, where valleys lie between,
Are slowly breaking into green
Of tender oak, with golden sheen,
And buckeye, with its fig-like leaves,
And round the pine, that ever grieves,
Its lithe new stems, the ivy weaves;
And leaves, bronze bright,
And blooms, milk-white,
Form garlands for the rugged pine.

And fragrant, blossoming chaparral,
Like snowdrifts, made by fairy spell,
Lend perfume to each awakening dell;
And bees, with lazy, droning tune,
Are hovering o'er the dense perfume
Of manzanita's rosy bloom.
By the sweet low wind,
The brown bees find
The blooms, with richest honey stored.

In meadow lands, that lie below,
Where brown and golden waters flow,
And happy children love to go,
Are lovely bells, all waxen cold,
And brilliant gleaming cups of gold,
And other buds, bright red unfold,
Tall willows lean
Above the stream
That dimples through the meadow land.

Here, banks of royal purple dyes,
There, flowers, like gorgeous butterflies,
And blossoms, blue as baby's eyes,
Amid damp mosses, dewy gleam,
Are lovely blooms of dainty cream,
And feathery ferns of tender green;
And all day long
The lark's glad song
Rings cheerily o'er the meadow land.

Grass Valley, Cal.

Marinda.

An Easter Story.

[Written for the Rural Press by M. B. D.]

"Now Rinda, Rinda, put in two of the
Cochin eggs, or the pups will starve. They
are tender things, and 'bout the mother they're
a hard time, I can tell ye."

These words fell in the vexed, high-pitched
voice of a rheumatic old man upon the ear of
his daughter, who stood by the stove heating
gruel for the young puppies, three chubby,
satin-backed creatures that whined about the
man's feet for their ten-o'clock meal.

Marinda's face was red from the heat of the
stove and from vexation. She would have
broken in but one of the rich cream-white eggs
that lay in a small basket upon the cool window
ledge, but her father's fretful eyes were upon
her. It was hard to endure this endless watch-
ing and fault-finding from the crabbed old in-
valid, who had nothing to do but nurse his
hobbies and his gouty extremities, and espe-
cially hard for Marinda since her abundant red
hair, which fell in smooth, glossy braids to her
waist, and her firm, little mouth and chin
showed that she had inherited her father's firm-
ness and high temper as well as his complexion
and features.

It was Mr. Gorham's chief hobby to raise
fine collies, and this also was a small source of

profit to him, which was particularly gratifying
since his infirmities precluded him from other
employment. But it was also Marinda's hobby,
after being an excellent housekeeper, to have a
fine poultry-yard and derive an independent in-
come therefrom. She was justly noted in the
neighborhood for her success, and those fine
Cochin eggs, the fresh, creamy shells of which
possessed a glitter almost like that of great
sheeny pearls, sold at a high premium among
her acquaintances to raise poultry from.

An hour later, when her father sat smoking
in the sunny end of the porch, she went slowly
up the slope of the orchard at the back of the
house to hang out the clothes which she had
been washing. Here was a heavy gingham
blouse that her busy little hands had made for
her brother Will, and there a smaller one for
John, who was but twelve years old, and yet
he was out of school and off helping Will with
Mr. Underwood's sheep. She was thinking of
the pretty blue necktie which she had prepared
for him to wear next Sunday, the coming
Easter, when all the young people would wear
something fresh and pretty, almost as if they
did not wish to contrast too poorly with the
billows of fresh blossoms which would make the
church a perfect bower of vernal beauty. Her
cheeks burned and her eyes filled with tears at
the thought of her own disappointment. The
fresh dainty dress of sateen, green like a spring
meadow dappled with tiny heads of clover,
would be out of taste with her dark winter hat.
All the other girls would wear fresh straw hats
caught up with ribbons and flowers, or else
delicate creations of fluff lace and mossy buds,
airy and bright enough for some wild wood
nymph of the old enchanted forest.

Marinda was rebellious. She had tried ear-
nestly to be a faithful daughter and sister as
she had promised her dying mother that she
would be. But to continue meek and patient
through such endless discouragements was
almost unendurable.

"Oh! what vexation. You little imps, get
out!" she exclaimed with the same sharp scowl
which had become habitual to her father.

The young collies had managed to follow her
through the long grass, and were whining with
joy at reaching her feet at last. She pushed
them away with the tip of her toe and went on
pinning up snowy handkerchiefs and long red-
bordered towels.

"Ti-yi! Ti-yi!" whimpered the pups, scam-
bling after her, their little velvety legs trem-
bling under them with infantile weakness, and
their soft, limpid-looking eyes saying as plain-
ly as words, "Some cruel thing has pushed us
away, and we are trying as hard as we can to
get back to your gentle care."

"Why, the poor helpless babies!" she ex-
claimed, after she had betrayed herself into a
reluctant glance to see why they were whining.
Then she threw herself down on the rich, sunny
grass and gathered the soft, silky morsels into
her lap, letting the tears fall unheeded while
she caressed them. They licked her hands and
bare white arms with their little warm, pink
tongues, and at last made her laugh when one
scrambled upon her bosom and nestled his cold,
damp little nose against her throat.

"Oh, well, what does it matter, my dears,"
she said to them playfully, "whether I wear
my old dress and hat or new ones? Father
shall have his light overcoat, and I will not
think of myself when I see how glad that will
make him."

Marinda had been saving all the money her
poultry brought in the hope of buying her
father a much-needed light overcoat and her-
self a suitable spring costume; for she enjoyed
the luxury of appropriate raiment with all the
intensity of her lively, ardent nature. She
would have had ample means for both if it had
not been for those young dogs. Her father's
peevish jealousy for them exacted the best eggs,
and those in abundance, besides the milk and
gruel she gave them. This fancy of pampering
dogs in their food, many share, yet it seemed
cruel and unreasonable of him to her after she
had explained that she needed the money so
much. Still it had all ended as it always did
in his own selfish way. Her youthful, inex-
perienced mind could not understand how years
of suffering and unmanly confinement had
warped a nature which was originally good
and strong, even though somewhat exacting.
Neither could she discern what priceless jewel
of patience and thoughtfulness for others she
was obtaining for her own brow from the toad's
head of this hard trial.

At length she had finished hanging out the
clothes, had tucked the puppies away in their
warm, well-lined box, and was singing to her-
self as she tripped out to the chicken-yard
with her egg-basket and measure of kitchen
crumbs for the chickens which flocked to meet
her. Here came the tall spring broilers with
the pin-feathers still upon their heads, and
long, scantily covered legs, and then the
maidenly pullets, full fledged, walking about
with a dignified air, so incongruous on account
of their size, like young girls in their first long
skirts, mimicking seriously their elder sisters.
Over there in the sunny corner were some
broods just out of the shell in their respective
coops. Marinda fed them carefully, watching
the tiny balls of down run chirping about,
while each anxious, ruffled mother clucked out
her wants and admonitions with the flurry and
importance of a royal nurse.

But best of all she liked the plump old bid-
dies that pecked the crumbs from her hands
and cackled so proudly over their nests full of
eggs. She gathered up the pearly treasures
eagerly as she had the day before, but she did

not count them nor calculate their value.
What was the use? The hens might cackle all
day from now until Easter Sunday, the puppies
would still eat enough to keep her short of
funds, and the visions of lace and flowers had
vanished like the dews of the morning.

Yet she had gained one more victory over
her own selfishness and pride. She was grow-
ing better—more worthy of her sainted mother,
whose remembered words were music and
whose every deed was kind.

That evening she sang over her sewing,
stitching cheerfully the pretty Easter dress
which probably she would not wear. The flame
burnt clear and bright in the crystal globe of
the lamp, the cat purled on the hearth-rug and
the puppies slept in the box by her father's
chair, their plump little bodies nestled together
like birdlings after their generous supper. The
old man smiled while he mused over his paper.
Somehow the hour seemed a harbinger of hap-
piness, and so it proved.

Easter morning the boys came into town
early to help her gather the freshest flowers for
the church, and they were off with their
fragrant armfuls before the earliest bells filled
the clear air of the sunny April morning with
ringing silvery notes.

Marinda brushed her luxuriant hair into its
most glossy luster and braided it, fastening
each long, shining braid with a knot of azure
ribbon. Then her plain blue cloth suit and
little hat with the snowy feather did not look
so very wintry after she had fastened a bunch
of violets and plummy fragrant white lilacs on
her breast.

When her father received his new coat, he
kissed her with tears in his eyes. "Rinda,
you are an angel—just like your mother. God
bless you," he said, and turned away to regain
his self-control.

When they were walking under the fresh
green of the locusts that lined the street, they
met Mr. Doak, the young divinity student who
was here on an early vacation. He was Maud
Mayo's devoted admirer, and Marinda smiled
as she nodded to him, thinking how happy
Maud must be to be met by one so good and
handsome, for he seemed to be going to meet
her, since he had passed the church.

Mr. Doak scarcely saw her. He certainly
did not see her shy, bright glance and the deep-
ening bloom on her cheek. On down the street
he hurried, for the last bell had rung, but in
some way he missed Maud. So he selected a
dainty knot of lilies of the valley at a florist's
garden as he was passing, and came into church
a trifle late. Yes, there was Maud sitting next
to that red-haired girl and her old father.

"Ah, she—my Maud," as he thought to him-
self, "is as fair as the flowers." Her dress
was of some clinging primrose-tinted material,
and her languid dark eyes looked up from be-
neath a cloud of lace and forget-me-nots—the
most bewitching of Easter bonnets. How
dreamily she waved her face fan, which was
light as a butterfly's wing. Any butterfly
might be tempted to hover about those roses
on her breast, if he did not mistake her first
for the queen of roses. Sweet Maud! She
never knew a care, and she had the face almost
of an angel. What a contrast there was be-
tween her lily-like beauty and the vivacious
freshness of her companion, with her glowing
cheeks and sparkling blue eyes.

Here his thoughts were interrupted by the
low rumble of the organ and the rising of the
singers. The air was heavy with the scent of
lilies and jasmine. The light shone softly in
beams of subdued rainbow color through the
stained-glass windows. The music swelled and
burst like the splashing of some great crystal
fountain which was pouring its silvery billows
down from the stars in a throbbing tide of
melody. The very flowers upon the altar
trembled with the music of the mingled voices
pouring forth their praise and worship in deep
melodious numbers:

"Glory to God!
Glory, glory to God in the highest!"

And with the strain his fancy pictured the
asphodels of heaven vibrating with the songs
of angel choristers. His eyes rested upon
Maud's face. It did not mar the fancy. She
was singing, and her expression was truly
seraphic, while she looked with upturned eyes
toward that heaven to which she seemed no
alien.

Then followed the prayer, and the low, solemn
voice of the minister was no less inspiring,
seeming to crown the ecstasy of worship with
that outpouring of the heart which is to life
one of its richest balms.

Mr. Doak bowed his head and was in
perfect accord with the holy influences of the
sacred hour, when a slight rustle near Maud
made the thought flash through his mind that
she might have fainted from the heavy perfume
of the flowers. Her head was scarcely bent, but
what was that which flashed in her hand, a
little disk of gleaming silver? He recoiled in-
voluntarily as he recognized a pocket mirror,
and she was smiling at the glimpse of her own
face which it reflected. She bent a little lower,
and almost a laugh fitted across those perfect
lips as she caught the twinkle of a diamond in
one of her shell-like ears. She bent still lower,
and drooped her eyes for a moment.

"Perhaps the poor child, after all, had felt
something awry, and we all know how annoy-
ing that is, even at the most sacred times."

He had scarcely made the mental excuse
when a whiff of mignonette fell upon his senses
uncomfortably strong. Maud was wiping her
face with a bit of chamois which had been

dipped in some powder of the faintest blush
color. Her movements were as graceful and
unconscious as those of a bird when pluming
his wings in the sunlight.

It was not so much the act she was perform-
ing in this sacred place and time which shocked
him until he turned pale to the lips, but the
surprising insight which it gave to her char-
acter. The scales had fallen from his eyes.
Now he remembered to have caught a mysterious
whiff of the mignonette powder on various oc-
casions. He had thought her mind was of that
sensitive and poetic mold which can appreciate
all that is ennobling and high, and he had often
believed that her face expressed something of
his own enthusiastic emotions. Was it only a
mask? Did she simulate those feelings only to
please him? This vanity then was the key to
her character. He recollected last Sunday
afternoon, when her mother, tired and weary
with watching over her little brother, who was
sick with a sore throat, had asked Maud to
stay with him an hour or two, so that she
might rest, and Maud's slight half-petulant ex-
cuse:

"O mamma dear! I'm so sorry for you, but
you know I might get the sore throat too, and
ruin my voice."

Mr. Doak had insisted upon watching him-
self, notwithstanding Maud's little pouting pro-
test. And all the while he sat in the cool,
quiet chamber of the suffering child, Maud
fitted about the garden in sight of the window
through which he could see her picturesque red
scarf held carelessly about her shoulders and
her flaunting sun hat looped back above her
curls. She was gathering little bouquets, and
after awhile she came breezily in, giving one to
little Harry, her cheeks aglow with the unusual
exercise. Now he could explain why Harry
was so surprised at her kindness. Many inci-
dents of the same kind which he had scarcely
noticed at the time, or had excused to himself
in some way, came thronging upon his mind,
and he lost the rest of the prayer and much of
the sermon, too, for he could not fix his mind
upon them. He was heartsick. Now her love-
liness seemed something hideous, as if he had
discovered that she was some strange creature
in the guise of beauty.

He did not chance to speak to her after serv-
ice. While she was apparently absorbed in the
remarks of some young gentlemen, he passed
her and spoke to her companion Marinda, and
later he walked home with her. She it was
who wore the waxen lilies of the valley which
he had intended for one whom now he deemed
unworthy of the esteem which the gift of them
would express. He had not asked Miss Gor-
ham's company because he admired her especial-
ly, but for the reason that something in her
clear, earnest eyes disclosed to him the sincer-
ity and warmth of her nature, and he chose her
as a sister, and asked her sympathy in this sore
trial. How gentle and true he found her. How
charming she made her home and how patient
she was to her aged and invalid father, to whom
she was a staff and a joy in his helpless age.
She was brave and cheerful and seemed ever
overflowing with sunny hope. Truly she was
more precious than rubies.

This sweet little foster-sister of his own
adoption won first his respect and esteem, and
when he became thoroughly acquainted with
her she seemed incomparably lovely. She had
unfolded like the petals of a rose, or rather like
some fragrant golden-hearted fruit blossom, for
in her life was a rich and lasting promise. He
loved her with an ardor and earnestness which
he had never had for Maud. Her nature was
so much deeper and nobler, and though her
sympathy was so freely given, to win her love
was a different thing. Still, some two years
later when he offered his heart and hand the
second time, she accepted them and gave the
wealth of her own trusting love in return, and,
best of all, he made as good a husband as she did
a wife.

THE CENTENNIAL ANNIVERSARY of the in-
auguration of President Washington will occur
on Tuesday, April 30th. General Washington
was inaugurated on April 30, 1789, because the
bad weather had prevented Congress from as-
sembling and organizing. James Monroe and
Zachary Taylor were inaugurated on March 5,
1821, and 1849, respectively, because March
4th in those years fell on Sunday.

A LILLIPUTIAN FARMER.—A correspondent
of *The Four Corners* mentions an agriculturist
of incredibly small stature. He says: "Mr.
Tom B. has 600 acres of grain and is summer-
fallowing 400 acres, and at present stands
eight inches high." If this be true, where's the
great showman?

"WHY," asked an examiner, "does the sea
so seldom overflow the land?" "Because a
merciful Providence has created sponges to
grow in it," was the reply. The examiner was
a public-school senior.—*Paris Illustré*.

TO ONE who said, "I do not believe there is
an honest man in the world," another replied:
"It is impossible that any one man should
know all the world, but quite possible that one
may know himself."—*Lavater*.

THE Escondido Times says it is published in
a "sun-kissed vale," but the wicked Oceanside
Herald spells it "sin-kissed vale."

THERE should be less pride felt in peculiarity
of employment and more in excellence of
achievement.

[Original.]

Betsey Snow's Perplexities.

"Betsey," began Fred, his handsome face illuminated by his after-dinner smile, "I hope you can now see the wisdom of the firm stand I have taken against female suffrage. Suppose you, the wife of my tender care and solicitude, the mother of my young daughter, had been a member of the last Legislature, and participated in the closing scenes of the session! Could you ever smile upon me again?"

"I'm afraid not," said I, though I could not at once grasp the idea that my escape had been a very narrow one. "And oh! my dear Mr. Snow, wasn't it fortunate after all that you weren't elected? We cannot always see how our disappointments prove to be blessings, can we, Fred? Think how my tender heart would have been pained to read such things about my husband and the father of my little girl."

In my ignorance, I am always saying the wrong thing. Mr. Snow's face assumed a serious expression. "Is it possible that you are pleased at my defeat? Why, with me it would be very different, of course. With men it is quite another thing. They are not sensitive as women are, and not so easily contaminated. And then men are not expected to be as particular as women are. Woman's greatest charm is in her modesty, and that must be preserved. We must keep her out of politics at all hazards."

The matter was very clear after Mr. Snow explained it to me, and I wished he had not gone out when Mrs. Jones came in to read the paper. Mrs. Jones is interested in politics, and the closing hours of the legislative session was the first thing that caught her eye. When she laid down the paper, she burst into a torrent of abuse of our public men. She said if a lot of boys at a reform school had behaved as bad as our lawmakers, they would be shut up and kept on bread and water until they promised better fashions. I tried to quiet her rage by saying we ought to be thankful that women were not allowed to go to such places. But instead of soothing her it only enraged her more.

"Not allowed to go there! Why, Betsey Snow, I thought you had better sense than that! Do you think the men would have acted so like wild beasts if their wives and daughters and female acquaintances had been there? No indeed! And if they had, or if they haven't decency enough to behave better without the restraining influence of women, the sooner they are sent home and good intelligent women put in their places, the better it will be for the State."

I wished for Mr. Snow to reply to her, for I wasn't sure what I ought to say, as I had never heard an argument like that. I pity poor Mr. Jones, for strong-minded women are very uncomfortable to live with, they say.

While shelling corn for the chickens' supper, I mused on the subject that had agitated Mrs. Jones. I wondered if champagne and wine did not make men forgetful. The bill giving women the right of school suffrage came very near passing toward the close of the session, but somehow it was forgotten at last. I think Mr. Snow would allow me to vote for school trustees if I could. Hephzibah will begin school next term, and we feel very anxious about the teacher and house. If Mr. Judkins is elected trustee, he will hire his niece Deborah, who declares she hates children and only teaches for the money. The school-house is in a very bad condition, and the trustees are so economical they will spend no money on it. The floor is single, and the wind comes up between the boards. The little ones' seats have no backs, and there is a pool of stagnant water close to the house, that breeds malaria and mosquitoes. The women about here have talked it over, and decided if the trustees will do nothing, that they will use their pocket-money for school-house improvements. As I have no pocket-money to speak of, I suggested a fair similar to church fairs. Last year the proceeds of two fairs carpeted the aisles of our church and paid for a few pretty pieces of bric-a-brac for the minister's wife. They got no more money out than they put in, but then it is pleasant to work. Everybody ought to work in a good cause.

I'm sorry that champagne killed the school bill, for I would like to see Mrs. Smith take a hand in fixing up things in our district. I should certainly vote for Mrs. Smith, she is such a careful mother, good housekeeper, and has excellent judgment—that is, if Fred was willing.

BETSEY SNOW.

MISS JEANETTE HALFORD, daughter of the President-elect's private secretary, is living a thoroughly rural life near Orlando, Fla. She is frequently seen seated upon a load of hay and driving a team of frisky mules.

YOUNG FOLKS' COLUMN.

Tangles.

Enigmatic Snarls. Hard and Easy, for Young People of all Ages to Untangle.

13.—THE COOK'S REBUS.

Fourteen kinds of condiments and seasonings.



14.—CENTRAL DELETIONS.

To each human man and woman
Nature gave a heart, no doubt,
Yet, what being can help seeing
That the beast is best without?

E'en the negro there, should he grow
Heartless in an evil hour,
He's a tyrant then envired
With the attributes of power.

Thoughtful childhood sees the wildwood
That would over earth expand,
If our world had been huled
Heartless from its Maker's hand.

From a stupid turnkey Cupid
Filched the heart with fingers deft,
His effrontery left a country
Of all gratitude bereft.

Stoics shiver at his quiver,
Yet admire the imp whose art
Made Leander a commander
When the priestess stole his heart.

Thus while living gay or grieving,
In those hearts there will abide
Hoopes that dwindle and rekindle,
Ebbing, flowing, like the tide.

W. WILSON.

15.—QUEER WORDS.

If it should reverse me and add to itself, you will find a *hint*; but if it should me reverse before it, you find to *discharge*. And if it should come between me, you will find a *tiny spider*. But if it should be reversed and put before me, you will find an *opportunity*.

D. S. PAUL.

16.—CURTAILMENT.

Pluck a pretty little flower,
Just curtail it in that hour.
What is left, I'll venture odds,
Is among your household gods.
Just one letter more release,
'Tis among the gods of Greece;
Once again, there will appear,
One a king within his sphere;
One time more, and I am done—
In a corpse what poets shun.

W. WILSON.

17.—HISTORICAL MATHEMATICS.

6
501
5
1
101

Given the above figures, find two-thirds of a celebrated message of a Roman general.

J. H. FEZANDIE.

18.—ANAGRAM.

young man of twenty or less
Tried to write funny things for the press;
But to see through his jokes,
Even quick-witted folks
Had to use comic prose, I confess.

E. W. HARRIS.

ANSWERS.

- 7.—Uncertainty walks on both sides of us.
8.—Spark, park, ark.
9.—ACTIVITY.
10.—1. Cramp. 2. Sword. 3. Cod. 4. Drum.
5. Shark. 6. Whiff. 7. Pipe. 8. Carp. 9. Pilot.
10. Dab. 11. Globe. 12. Pike.
11.—The alphabet. A, bee, sea, (Dee, Aar and Ex), e, gee, eye, jay, ell, Em, o, p, queue, tea, (f, k, n, s, v, y and z), you, and double you.
12.—Parliament.

A Boy's Cooking-Class.

My little boy came running into my chamber, and with a loud hurrah exclaimed, throwing his cap on the floor: "Mamma, I am going to cooking-school." I said I thought only little girls went to cooking-school. "Oh, yes," he said. "Boys can cook just as well as girls, and fifteen of us boys are going; and will you make

me a white apron and cap? And I can learn to make bread and soup and lots of things for you; and then, if the cook leaves us, I can help you." You see that this little fellow is very fond of eating, and is very willing to help, too.

I made him a white linen apron, high in the neck, and buttoning round the wrists, and a cap, gave him a holder, putting all in a little leather bag, and off he started; and I do not think you could find a happier or prouder boy anywhere.

When he came home, he had learned several things, which I will tell you about.

Each scholar has a little gas-stove, a large spoon, two small spoons, a large knife and fork, and a vegetable knife, a large and small board; and several utensils are kept in a dresser, and they will use them when occasion requires.

The first thing they did was to bake potatoes. The potatoes are selected as near of a size as possible; then they are scrubbed clean; every particle of dust is washed off (and it makes a great difference in the taste), and then put in the oven and baked from 30 to 40 minutes. As soon as taken from the oven, the potatoes are just opened a little to let the steam out, and served at once. If any are left over, they are pared at once. If left with the skin on, a potato is not fit to be used again.

Then a slice of stale bread was given them; and the edge was to be cut off, and the slice cut into little squares and placed in a shallow pan and nicely browned in the oven, to be used for soup, etc. The crust was rolled fine into crumbs, and placed in glass jars for future use. Everything was then cleaned and put in order.

—H. A. W. in Christian Register.

A Country Girl.

[Written for the Rural Press by MAGGIE HAINES.]

Many country girls say they would never be a city girl, while most of the city girls declare they would never be a country girl; but we know there must be both.

It is true, country girls generally have more work to do, and less time for pleasures, yet you will find many a country girl far happier than any city girl.

As I have been one and am now the other, I can judge the feelings of both by experience.

A city girl has the advantage of a country girl in fashion, books and pleasures. While she goes to her graded schools and receives the diploma of graduation, a country girl walks two miles or rides three or five to attend the little district school where she expects to receive her education.

These district schools are no fine three or four story structures, with steam-heaters and fine reception-rooms, but one large room where the old and young, the large and the small, are all together.

Under a stern schoolmaster or gentle school-mistress they study day after day until they are old enough to assist on the farm. Many country girls are sent off to college or high schools, but the majority finish their schooling in the little district schoolhouse.

Again, while a city girl goes to parties and theaters week after week, or, as you might say, night after night, a country girl is at home knitting some warm stockings for her little sisters or brothers, or attending to other household duties.

A country girl does not go shopping every day, but is in the old farm-wagon with her father or brother every Saturday morning before sunrise, on the road to town, expecting to change her little basket of eggs and rolls of butter for groceries or dry goods, and is on her road home again before the sun gives any signs of setting. She does not wait for the postman to give orders for eggs, butter or chickens, but is rambling over the sweet hay, looking here and peeping there, filling her apron with large eggs, or is converting the rich cream into pure butter, or is out feeding the ducks, turkeys and chicks. She is the one who spreads pure butter on her bread, instead of half lard and half butter.

She does not wait for the milkman to bring her her quart of half milk and half water, but is out before the sun is up in the morning, and after it has set in the evening, filling her bucket with sweet pure milk from her pet cow.

She is not the one who is vexed because the vegetable-man or the baker did not come in time to have the articles for dinner, but is skipping toward the garden to gather the fresh sweet vegetables from the little bed from which she has been so careful to keep the weeds, or is forming the flour into beautiful white loaves of bread.

She is not the one who is complaining because her dress is not as fine a piece of silk as her friend's is, or because she has no new party dress, but is carefully and neatly laying the folds of her new calico or gingham dress, which she expects to wear for the first time at her sister's wedding, or to church.

She is not the one who is out riding or walking with her beau three times a week or every evening, nor the one who is walking the streets in order to flirt with every young dude who will flirt with her, but stays at home and receives her sweetheart every Sunday, or fourth Sunday, as it may be.

The country beau, if they live at a distance from her, go in the morning and stay all day until after supper.

You do not find many healthy country girls with delicate hands and unwilling hearts, but they have hands that show the effect of hard,

honest work, and they are always willing to make those around them happy.

There are many country girls, too, who are unhappy, but take it on an average, they are the best-hearted and true domestic girls.

A country girl is not to be laughed at, nor to be cast from society.

City girls, invite your country friends to spend a few days with you; take them around and show them the beauty of the city.

Country girls, invite your city friends to spend a few weeks with you; show them the beauty of the country, of farm life and of farm pleasures.

We country girls will be glad and delighted to receive our city friends, known or unknown, at any time; but we expect to be invited to the city in return.

Wheatland, Cal.

DOMESTIC ECONOMY.

Ripe Olives for Pickling.

The olive of commerce, with which every one is familiar, with its beautiful green tint, in handsomely labeled bottles, is put up expressly for foreign consumption. The olive-eater to the manner born never thinks of touching this fruit which is gathered and pickled before maturity. On the contrary, he waits until the fruit has turned color and is well on its way to maturity. It is then pickled, and in this shape forms a staple article of food with the French or Italian peasant. And truth to say, a ripe pickled olive is as superior to the green ones generally consumed as any other ripe fruit is to that which is immature. It is a common saying that the taste for olives is an acquired one. That may be true of the green fruit, but one's taste need not be cultivated to enable him to consume an almost unlimited quantity of the ripe with enjoyment.—Lower Californian.

PROHIBITION FRUIT CAKE.—One and a quarter pounds butter, one and a half pounds brown sugar, one-half cup of molasses, one dozen eggs, one and a half pounds browned flour, one tablespoonful each of cinnamon and ground cloves, one nutmeg, tablespoonful of baking powder, one-half cup sweet milk, two pounds currants, two pounds raisins, one pound citron. Roll all the fruit in flour. Rub butter and sugar together, add the yolks of the eggs, part of the flour, the spices and the whites of the eggs thoroughly beaten. When these have been well mixed, add the remainder of the flour, and the fruit well dredged and mixed with flour. Bake in a slow oven three or four hours. This makes a very large cake, and it bakes far better when divided into two cakes.

GOOD BREAD.—Take a good one-half pint of milk and a good one-half pint of hot water, a little butter or lard, one teaspoonful of salt and one tablespoonful of sugar. Dissolve one-half cake of compressed yeast in a half-cup of lukewarm water, and add to the above. To this put 30 heaping tablespoonfuls of flour, and stir and cut with a knife till the flour is worked in. Let it rise six or eight hours, or until light. Then give a short but vigorous kneading and put into pans. Let it stand an hour or thereabouts. Bake one hour.

CHARLOTTE RUSSE.—Line the sides and bottom of two oval tin pans with ladyfingers or sliced sponge cake; soak an ounce of gelatine in a pint of milk for one hour; put in a saucepan over some hot coals; stir until dissolved, strain in an open dish; make very sweet and flavor with vanilla or lemon to suit taste. To one quart of rich cream add the beaten whites of six eggs; when the gelatine has become cold, but not stiff, add to the cream and eggs and beat all together.

GERMAN TOAST.—To one egg thoroughly beaten put one cup of sweet milk and a little salt. Slice light bread and dip into the mixture, allowing each slice to absorb some of the milk, then brown on a hot buttered griddle, and spread with butter and serve hot.

RYE MUFFINS.—Two cups of rye, one-half cup of flour, one egg, one-fourth cup of molasses, milk enough to make rather soft, two scant teaspoons of baking-powder, mix with the meal and flour. Bake in gem pans in hot oven.

COLD SAUCE.—The white of one egg, one cup of sugar, powdered is best, a piece of butter the size of an egg, beat thoroughly for 15 minutes, grate a little nutmeg on the top when ready for use the table, and set away to get cold before using.

STEAMED OATMEAL.—Half a pint of oatmeal and one teaspoonful of salt; put in a two-quart basin and pour over it one quart of boiling water; put in a steamer and steam two hours. Do not remove the cover during this time.

BAKED APPLES.—Pare and core and fill the apples with sugar, butter and candied lemon peel. Brush all over with sweetened water, and sprinkle with bread crumbs browned in hot butter. Bake.

DOUGHNUTS.—Two heaping teaspoonfuls of baking powder, one quart of flour, two eggs, one cup sugar, one cup milk and one teaspoonful of butter.

BOILED FROSTING.—One cup of granulated sugar and five tablespoonfuls of milk; boil four or five minutes, then stir till cold and put on a cool cake.

ROCK CREAM.—One teacup of boiled rice, whites of five eggs, beaten stiff and sweetened, three tablespoonfuls of sweet cream; flavor to taste.



A. T. DEWEY.

W. B. EWER.

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Agricultural Implements—H. C. Shaw Plow Works, Stockton.
Barbed Wire—A. J. Robinson.
Machinery—Z. T. Wright, Portland, Or.
Spray Pumps—Bean Spray Pump Co.
Hartford Compressed Air Pump Co., Bound Brook, N. J.
Florist—Mrs. T. B. Shepherd, San Buena Ventura, Cal.
Patterns—H. A. Deming.
Sheep—Frank Bullard, Woodland, Cal.
Commission Merchants—Gregory Bros. Co.
Incubator For Sale—B. F. Wellington.
Separator For Sale—H. P. Mohr, Mt. Eden, Cal.
Horses and Cattle—H. P. Mohr, Mt. Eden, Cal.

See Advertising Columns.

The Week.

Here we are with harvest and haying all in a jumble in this ill-ordered country. What Eastern farmer would tolerate such an idea, and yet in California we are cutting wheat and barley in the upper San Joaquin valley and cutting hay in the Santa Clara valley. The early heat has hurried the grain forward rapidly, and new wheat promises to reach the city earlier than ever this year.

The first tree fruits of the season, the arrival of which was noticed in last week's Rural, show that the fruit harvest will also be early. It is coming forward without other disasters than the disfavor at blooming which reduced the apricots and in some parts the peaches also. There promises, however, to be good results on the whole. The grapes are still unvisited by frosts and mayhap will remain so.

COYOTES are supposed to be howlingly jubilant in Mendocino county, for the Board of Supervisors on the 8th instant repealed the ordinance providing for the payment of a bounty on coyote scalps.

The Fruit Freight Matter.

Agitation promises to accomplish something in the matter of freights on fruit products, and it should not be allowed to cease through lack of interest on the part of the growers. The canners announce, or rather perhaps it is announced for them, that with the continuance of existing freight rates on canned goods, they will seriously reduce their operations the coming summer. This would be unfortunate, both directly and indirectly, not only for the fruit-growers, but for all the industrial and mercantile interests of the State, as all are linked together in the rewards of a good free market for our fruit product. For this reason we hope that general attention will be given to the fact that Secretary King of the Canned Goods Association has called a mass-meeting of shippers and all interested in fruit-raising, to be held at the Chamber of Commerce Saturday afternoon, April 27th. The object of the meeting is to make an effort to secure an immediate reduction of the freight rates on canned goods to Eastern points.

There was a meeting held in this city last Saturday at which it was made to appear that the reason that rates on canned goods were not reduced was the refusal of the Santa Fe system to agree to the reduction, consequently the Transcontinental Association could not grant it. On this statement a committee was appointed to investigate the matter, and if the facts were found to be as represented, measures were to be taken to induce all to withdraw business from the Santa Fe road, or in other ways to declare a boycott against it. It is currently reported that this committee after conferring with merchants will not recommend such action, and that the trouble is both deeper and wider than the Santa Fe road. If this is the case it should be known, and probably a mass-meeting such as is called for next Saturday would bring it out. In order that fruit-growers may know what is said of this important matter, we give the following from the *Chronicle* of April 24th:

The merchants show more feeling against the Transcontinental Association as a body than they do against any particular member of the organization. Many of them are in favor of a determined legal fight against the combination, on the ground that it is violating the Interstate Commerce Act. A prominent merchant told a *Chronicle* reporter yesterday that the shippers are in favor of employing counsel and proceeding against the combination as a trust.

"We know that we are right in this matter," said he, "and that the railroad people are wrong. The railroad managers say that the present condition of affairs is not attributable to railroad rates, but to overproduction during 1888. But while making this erroneous statement, they admit the fact that we have competition with Baltimore goods. Now, Baltimore turns out a lower grade of goods than California does, not using nearly as much sugar; besides, the freight rate from Baltimore to the Missouri river, a distance of about 1250 miles, varies from 40 cents a hundred down to 21 cents, the latter rate being made by the Eastern roads to move the freight at the time when its volume is heaviest and when the low rate is most needed by the Eastern packer. In 1887 the rate on California canned goods to the East was 75 cents a hundred pounds. The Eastern crop was very short, and therefore goods sold rapidly, and the packers as well as the fruit-growers throughout the State reaped the benefit, and had a very successful year. In 1888 the railroad companies fixed the rate at \$1.10 a hundred, an advance of 35 per cent, which undoubtedly gave considerable trade to Eastern packers that would otherwise have come to this coast. The railroad statistics for the season of 1888 show a gain in every line of fruit shipped except canned goods, and this shows a shortage of 200,000 cases, or about 30 per cent less than in 1887. The statistics of the roads interested in handling the Baltimore product show an increase of over 50 per cent in canned goods handled by them. This does not look like overproduction, but shows the injury done to this coast last year by the sudden increase of 35 per cent in freight rates. It narrows down to the question of who shall do the bulk of the business, California or Baltimore, and the matter is a more important one than many people may think, as the serious crippling of an interest like the canning industry not only injures the people directly interested, but injures our whole State and retards its development. The railroad people are not properly fostering and helping to develop its fruit interests. If they maintain that they are so doing, how can they reconcile the fact that sugar pays 65 cents a hundred to the Missouri river, while canned goods pay \$1.20 per hundred, either to Ogden, the Missouri river or New York, while canned goods coming westward pay but 99 cents per hundred from the Missouri river to San Francisco. Now, I claim there can be no excuse for the railroad people to allow the sugar interests of this coast, which benefit a few, to compete

with the East, under a 65-cent rate, and allow the canned-goods interests, which benefit the whole coast, to be hampered by a \$1.20 rate."

We give these statements on the authority cited. They are certainly worthy of serious attention. The canners should not be allowed to stand alone in the issue they are now making for the endurance of their business. The growers should rally to their support, and if on investigation the facts should warrant such action as contemplated, it should be the joint action of all in the producing and shipping interests. It is not advisable to denounce or to counsel radical action without full investigation, but in this investigation the growers should take a share, shoulder their part of the responsibility and lend the weight of their influence. We hope the meeting in this city on the afternoon of April 27th will be largely attended.

Viticultural Commission.

At a meeting of the State Viticultural Commissioners last week, the resignation of John H. Wheeler as Chief Executive Officer was accepted. Mr. Wheeler has made a most excellent record during his long service with the Commission as secretary, and afterward as Executive Officer, and his retirement, made necessary by the requirements of private business interests, is much regretted. At the request of the Commission, Mr. Charles A. Wetmore, president, will discharge the duties of Executive Officer, with the understanding that he may use the salary pertaining to the office for the employment of such assistants as he may need.

Owing to the great increase of work in the new headquarters, it has been found necessary for Clarence J. Wetmore to give all his time to the management of the business at headquarters and of the experimental cellar. He has consequently been installed as manager, and Mr. Charles B. Turrill, recently secretary of the San Diego Chamber of Commerce, has been elected secretary of the Commission. Mr. Turrill is well fitted for the place.

The Very One to Write.

With a graphic and interesting letter, which we gladly published awhile since, there came a personal note from the author apologizing for the haste with which he was compelled to write, and his lack of leisure to revise his "copy" as carefully as he would have preferred to do. He closed as follows:

A practical farmer, who is worthy of the title, and who has the immediate management of a well-cared-for farm, even if it is a small one, has little or no time for newspaper work; yet, after all, if he could spare the time, I think he might be the best-fitted correspondent for a paper like yours.

We want to commend these words to every one of our readers, man or woman, who has "learned by doing" something which it would probably help other readers of the Rural Press to hear about. Whatever good lesson you learn by experience in the line of garden, field and orchard industries, or the ordering of home matters—tell it to the editor, as best you can, and through him to the weekly conference of co-workers.

Bring thy mite,
Nor care how small it be.

It may be just what some one else is wanting. Let your light shine.

"CALIFORNIA ON WHEELS" was reported at Rome, N. Y., on the 20th, and left that town for Utica. It was to be at Lerkimer on the 23d inst., at Little Falls the 25th, Fonda the 26th, Amsterdam the 27th, Schenectady the same day, and will arrive at Albany on the 30th. New exhibits of wines and oranges have been sent to the managers of the train from this city, as well as some cherries and other fruits, and a large supply of printed matter.

THE FLOWER FESTIVAL at Los Angeles last week was apparently as lavish, tasteful and enchanting a display of bloom as ever delighted the beholders and honored the floral exhibitors in the southern metropolis. Our local correspondent, Clara S. Brown, has described it elaborately in a letter which has just reached us and will appear in our next issue.

CANADA DECLARES WAR ON TRUSTS.—A dispatch from Ottawa states that a very stringent bill, making it illegal to form any combinations in trade or trusts, passed Parliament almost unanimously on the 23d.

American Plows Abroad.

A few years ago it was quite delightful to secure data for a paragraph concerning the popularity of American agricultural implements and machinery abroad, but recently the verdicts of competitive trials of our own with foreign devices have been so uniformly in favor of American tools that their superiority has come to be regarded as a matter of course. This has been true with the more elaborate machinery, such as mowers and reapers and such common implements as the plow. As a friend has kindly sent us a copy of the *North British Agriculturist*, a leading foreign journal, with the report of a Scotch farmers' club's discussion on plows, we take occasion to record the excellent opinion pronounced of the American chilled plow as compared with British plows. The following are condensed statements made by different farmers at the meeting:

The American plow would do in the same time a half more work, and although turning a much bigger furrow, it had about a half less draught on the horses. It was also less costly to be maintained. He calculated from his own experience that there was a saving in the blacksmith's bill of at least £2 per plow per season when the chilled plow was used, as compared with the common plow.

The chilled plows effected a great saving in labor, and the draught was small. He had seen a pair of horses come in that had been working a common plow dripping with perspiration, and at the same time a pair working the chilled plow, and they had not a hair turned. A chilled plow would pay itself in two seasons.

They worked best on strong clay soil, which it broke and pulverized better than the ordinary plow, while it saved harrowing and gave a finer tilth for the seed.

There was difference of opinion, of course. One speaker contended that the American plow was not so good on land with fixed rocks; another that they left the land too loose and allowed it to dry out; another claimed that they left a hardpan in the furrow, etc., but the drift of opinion was as given above. The chairman of the meeting in reviewing the debate said there appeared to be considerable difference of opinion, even among practical men, as to whether the chilled plow made better work than the old plow; but it was quite clear to him the chilled plow was certainly economical in working, and that it made a great deal less labor to the horses than the old plow did.

The Grand Celebration.

New York advices are heavily laden with the details of the celebration planned for April 30th in that city as the last of the series of centennial events, the formal seating of Washington in the Presidential chair. The event is one of crowning significance, and we trust Nature may smile upon the great occasion for thanksgiving and rejoicing. As pertinent to the occasion, we print upon another page an interesting sketch of the event of 1789, with comments upon its present significance and its promise.

Our great event is naturally attracting the attention of the whole world, and the expression of interest and cordiality by those high in the councils of other nations are gratifying to us as a people. What could be more delightful than the following in a recent letter from Gladstone, the greatest man in England:

When your great country is about to celebrate the centennial anniversary of the inauguration of George Washington as the first President of the American commonwealth, I have been requested from Chicago and elsewhere to intimate the assurance of my participation in your national joy. It is a real and grateful participation, for statesmen of the American revolution have taken their place for aye, and among the greatest political instructors of the world, George Washington was their acknowledged and illustrious head, and to him and to them I have long felt that I owed no trivial part of my own public education. Long, without limit of length, may that Union flourish, under the blessing and favor of God, with the foundation with which their names are inseparably associated.

The celebration of the event in California will be general. The day, April 30th, is a public holiday by proclamation of President and Governor. In San Francisco there will be a formal celebration, and other towns will no doubt commemorate the day appropriately. As the churches in New York in 1789 held fitting services, so the churches in 1889 will open their doors for prayer and praise. The occasion is one fit to arouse praise and patriotism in every loyal heart.

THE Watsonville beet-sugar factory is boring for more water.

The Washington Centenary.

An Account of Two Presidential Progresses.

[An essay by Rose May Dobbins, read at the Charter Day exercises at the University of California and furnished by request for publication in the Pacific Rural Press.]

With the dawning year of 1876, America entered upon a period full of historic significance. With the then approaching centennial anniversary of Independence Day, the nation's thoughts reverted to that portentous time which enveloped the conception of the national idea, and turning with profound emotion from the retrospect, gave herself over to a joyful and magnificent celebration of that day which rounded into completion the first century of our history as an independent people. Following this in quick succession came the years of 1881 and '87, bringing other commemorative centennials, and the recent ceremonial in Washington that has confirmed the nation's choice of Chief Executive, and inducted him into his high position, marks the beginning of another great epoch in our history, and announces to a heedful world that 100 years have passed since Washington was called by the voice of a free people to pilot their Ship of State, about to be launched into the heaving and untried waters of Federalism.

Since England and Europe have subsided into their normal state from the festivities attending the jubilee birthdays of Her Majesty, the Queen of England and Empress of India, and His Holiness, the Father of the Faithful and Guardian of the Keys of Heaven, the Old World manifests a phenomenal interest in America's near commemoration of the time when she bade a lasting farewell to monarchical institutions and entered upon a freer life. This centennial celebration, the preliminary step of which occurred on the 4th of March, is to be, according to one enthusiastic patriot, the grandest celebration in human history. On the 30th of April New York will witness the repetition of the inaugural which there occurred exactly 100 years ago, and the first century of our Republic's national and constitutional existence will be completed by the progress of President Harrison over the same route, which in the April of 1789 was gay with decorations to welcome the chief man of the then struggling nation, as he advanced to assume his unique position.

It is hinted that in this grand jubilee each member of our great family of States will participate by the presence, in the pageant at New York, of her Governor and staff at the head of her troops. While the anticipation of this event is brightening into fulfillment, and the gay world of New York is seriously considering the adaptability of silver shoe-buckles and powdered wigs to the exigencies of the nineteenth century, and studying the effects of broadened trains over satin petticoats, in the endeavor to reproduce the society that welcomed Washington, let us, from the rising ground of the present, turn to the broad horizon of the past, and see how the infant nation set about to establish its Government, and whether the lapse of a century has effected any change in the model of forms then constructed.

Recent events are too fresh in our minds for me to remind you of our last inauguration day, of the brilliant procession which thronged Pennsylvania avenue as it escorted the President-elect to the Capitol; of the august presence of Congress assembled, of the Supreme Court, the most authoritative judicial body of the world, and of the Ministers plenipotentiary,

all rising to receive him, and all parts of the complex governmental machinery of a great nation, wanting only the President's command to continue in harmonious operation.

Rather let us look at the 4th of March, 1789. That day was ushered in with ringing bells and booming cannon to hail the Constitution, over which the combined political wisdom and sagacious statesmanship of 11, and at times 12 sovereign States had pondered, and debated, and struggled, and under which the incipient nation hoped to grow into a peaceful and prosperous Union. As I said, the 4th of March of a century ago had dawned, but where was the President, and Congress, and the Federal capital? The District of Columbia had then no existence, save in the anticipation of the Constitution, and the frogs were croaking in the marshes where the pillars of the White House now rise, while the wild things of the woods made their homes undisturbed on the spot where the dome of the Capitol now shelters the heart of the nation. Instead, New York was the elected seat of Government, but

with eager citizens. Rustics left their plows in the field and trudged over the valleys in their home-spun frocks to behold their great General. Mothers with little children, the aged and infirm, labored to catch a glimpse of the "Savior of their firesides." Soldiers paraded for his homage, and escorted him on his way until compelled to resign the honor to other bands emulous of the privilege. In rural districts garlands were looped from tree to tree, and Washington journeyed over a way strewn with flowers by a loyal and enthusiastic people.

Advancing in his carriage by easy stages was not an uncomfortable mode of travel, but it is not surprising that the Senators, as they straggled into New York, were glad to reach a place of rest where they could smooth their crumpled satins and velvets, and properly attend to their wigs. They had traveled the long distances in stage wagons, guiltless of springs, starting at three in the morning, to set out in the mud by the light of a horn lantern, and journeying till ten at night. Sometimes they met only the mailcarrier jogging on his way, who, at sight of

when sit down, and above all, what title should be selected for the President; should it be simply the President of the United States, or His Excellency, or His High Mightiness? Upon this question they quarreled until they were red in the face. They, however, agreed upon a committee of eminent men to escort the President-elect across the bay from New Jersey in an extraordinary barge rowed by 13 pilots in white uniforms. Boats and barges gorgeously decked and waving with handkerchiefs and banners formed the bright procession. The music from many hands floated over the water, and the ships in the harbor saluted at intervals. The Governor of New York met him at the stairs of the landing, carpeted for his feet, with railings hung with crimson banners. The city was crowded with visitors beyond its capacity for accommodation, even as we expect it to be in the coming jubilee, and the moving masses with one impulse pressed forward to gaze upon the grand figure of the Father of his Country, some weeping for joy, others wildly shouting, some casting flowers upon him, others waving flags and banners in the air, and the whole a demonstration of joy and gratitude in which a great city had exhausted its ingenuity and resources. Even in this prosaic, money-getting age, we feel a thrill when we read of the ecstatic emotion which moved our forefathers in this creative epoch of our country.

The day for inauguration dawned gloriously, and the balls, dinners and festivities which had followed close on Washington's reception, had not blunted the keen excitement of the occasion, nor stilled the joyous din, but a hush fell upon the city as the people with one accord entered the churches at nine in the morning to invoke guidance for the President as he entered his responsible sphere, and at twelve they assembled—a mass, as far as the eye could see—of upturned faces from the streets, the windows and the housetops, to witness the administration of the solemn oath of office, on the balcony of Federal hall on Wall street.

President Harrison is to be feasted and honored by the same communities which so enthusiastically received Washington. He too will pass under triumphal arches and listen to eulogistic odes. Princeton college will entertain him in her halls of learning, and 13 stalwart New Yorkers will row him across the bay, while Wall street, "now the financial nerve-center of the continent," will lay aside all thoughts of commerce and again become the scene of an inaugural; but could two great events, so similar in their accidents, differ more widely in their essence?

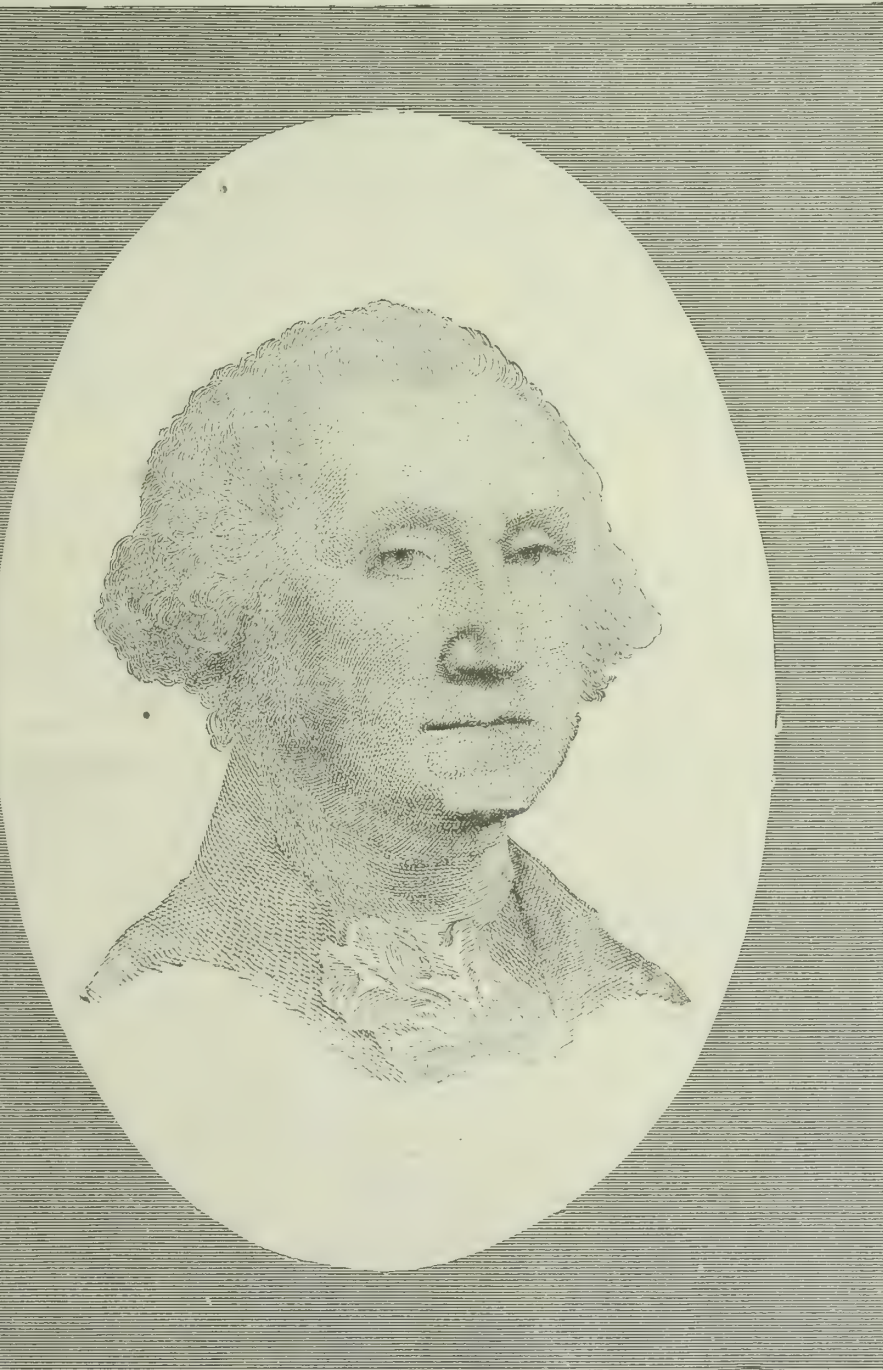
If we could be carried back into the 18th century we should behold a country totally unfamiliar to us, and the material transformation which the progress of a hundred years has wrought, but measures a corresponding change in the national attitude.

Though only the Chief Magistrate of a Government which was viewed with scant respect abroad, and composed of a few factious States that offered many intricate puzzles in statecraft, and sharply checked any extension of the executive's power, nevertheless the Republican Court was hedged in by much more formality than is now permitted to rule the White House.

Were we to apply the principle of evolution to social forms, we could see how well they have been demonstrated in the changes wrought in the etiquette of the Federal Capital.

Washington's attendance upon Congress in a cream-colored coach drawn by six white horses, with outriders and postillions, escorted by the Secretary of State and the Secretary of the Treasury, savored of kingly state. His receptions were chillingly formal, but in strict accordance with his sense of Presidential propriety, which forbade the ceremonial of hand-shaking as too familiar. England's yoke had been thrown off, but her influence was still apparent in the aristocratic tinge of society and the imitation of her forms. As the notion of the Republic has been developed these remaining traces of royal ceremonies have disappeared, until now President Harrison steps from the ranks of private citizenship into the executive chair of a nation, great in extent and influence without any essential change in the etiquette of his intercourse with his fellow-citizens, and now Americans see nothing derogatory to the dignity of the high position when our President serves his guests to refreshments or assists them in the cloakroom. These changes have deep-seated causes. The cheers which will re-echo for President Harrison on his progress to New York will have a widely different keynote from those that greeted Washington. The pulse of the nation, then struggling to its feet, beat high with hope and with fear for their new Government. Under the Confederation the United States were hopelessly drifting toward anarchy, and the terrors of the French revolution filled American citizens with forebodings for their own future. The Federal Government seemed to offer a remedy, but might not the President become an absolute monarch, and the Senate arrogate to itself aristocratic privileges and relentlessly crush the liberty of the States?

Thus it was that a deep undercurrent of anxious emotion surged through the hearts of the citizens who greeted Washington, while the cheers which will resound for Harrison as he follows in his predecessor's footsteps will arise from hearts full of proud satisfaction in their President, and trusting with perfect confidence in the form of Government that has so well stood the test of the century, and under which the country has achieved such unparalleled progress.



as yet its Federal hall was re-echoing the blows of the hammer and trowel, and a count revealed only eight Senators and 13 Representatives to constitute Congress, and as for the President, he was still to be elected. Though the 4th of March was the appointed day for inauguration, the weeks slipped by, and Congress still failed to assemble. Opponents of the Union laughed derisively, Federalists inwardly fumed and raged, but plausibly attributed all delays to late elections, bad roads, and even stress of private business—excuses hardly credible in our day of pertinacious office-seekers—meantime feverishly watching the arrival of stages, and asking the name of every traveler that visited New York. Men's hearts began to fail them, and the wheels of business almost ceased to revolve, as the people were sadly beginning to relinquish the new hope. Finally, with the country verging upon anarchy, a quorum assembled, the electoral vote was counted, and the result announced to Washington that drew him reluctantly forth, on the 16th of April, from the retirement of Mt. Vernon to engage again in the service of his country.

His route to New York lay through Baltimore and Philadelphia, and he set out as a plain citizen in his own private carriage. But what other citizen ever made such a journey? Although no telegraph told of his coming, the highways were lined hours before his approach

their stage, would conceal the letter he was surreptitiously reading, and hastily renew the knitting with which he whiled away the time when letters gave out.

Washington's ovation increased in magnificence as he neared New York. In Princeton he was royally entertained at the college by President Witherspoon—a visit of a far different nature from the one paid that village shortly after his Christmas exploit on the Delaware, when he found the college halls occupied, not with fun-loving students, but with British redcoats, to whose college ambitions he put a sudden end. An imposing triumphal arch, gleaming with golden lettering that recalled the victory of 12 years before, welcomed him to Trenton, while 13 white-robed maidens sang odes in his praise. At the crossing at Schuylkill, Washington, mounted upon a magnificent horse, rode down an avenue of laurel trees transplanted from the forest for the occasion and spanned with graceful arches. In passing beneath the last of these a civic crown of laurel was dropped upon his brow amid the deafening applause of the multitude, mingled with the stirring music of Washington's march, preserved to us as Hail Columbia.

In these long-to-be-remembered days Congress was settling weighty matters—questions of who should conduct the President into the Senate chamber, when Congress should rise and

AGRICULTURAL NOTES.

CALIFORNIA.

Calaveras.

A PULICULTURAL PROJECT.—Stockton Independent, April 20: Frank Madden owns a model orchard near Wallace, and has recently added eight acres to his eighth of a section for a chicken-raising department. With the incubators in good working order, Farmer Madden will add 600 chicks weekly to his brood of 1500 now scratching for food on the foothill ranch. He is planning to commence the shipment of broilers to the San Francisco market in July next, and thereafter he hopes to sell off 1500 chickens every month. Two men are employed to care for the chickens and they have nothing else to look after. Eggs are bought from farmers living in that section of Calaveras county, and the incubators are kept full all the time. After stocking the market with broilers, Mr. Madden will raise ducks. Men are now excavating a place to make a swimming-pond for the ducks. Next week carpenters will be sent to the ranch to build more brooding inclosures for the young chickens, and if the owner finds the business profitable he will immediately double the capacity of his hatching apparatus.

Contra Costa.

SQUIRREL CONFERENCE.—Gazette, April 20: The full board of Alameda county supervisors attended the meeting in Martinez on Thursday, thus attesting by their presence the degree of importance they attached to the contemplated movement for ridding the two adjoining counties of the pestilent and costly squirrel nuisance. A. L. Bancroft and Wm. Caven represented Contra Costa, James Foster being sick and unable to attend. Supervisor J. M. Stow and C. Sharp of Walnut Creek, N. Jones of Lafayette, and others were also in attendance. The Alameda delegation came provided with a draft of an ordinance differing in some important particulars from the one heretofore presented, and calculated to remove the objections urged against it. The document was read, but definite action was deferred upon it until the next meeting, which will take place in San Francisco. The care and deliberation exercised by the committee in the preparation of an ordinance that shall be legal in its provisions, effectual in operation, and just to all parties, is an evidence of the grave appreciation on their part of the responsible duty assigned them.

El Dorado.

AGRICULTURAL ASSOCIATION.—Placerville Republican, April 18: At a meeting of the Eighth District Agricultural Association held in this city last Tuesday afternoon, Frank Miller was recommended for appointment by the Governor as director for four years to succeed J. B. Rice, term expired; J. McF. Pearson was recommended for two years to succeed R. Alderson, Jr., resigned; and R. W. Baum was recommended for one year to succeed E. A. Boles. The directors have decided to hold the fair in this district one week previous to the State Fair at Sacramento. They will hold a special meeting April 24th, to arrange the premium list and transact other business.

CAKES FROM KELSEY.—Editors Press: Mr. C. H. Hall of Oakland is in our midst, in the poultry business. He has an incubator of 300 capacity and will keep it running for some time, his intention being to raise hens for eggs to the amount of 1000 to start with.... We have started in raising poultry ourselves, and intend to keep 1000 hens for eggs as soon as we can raise them. We have an incubator of 300 capacity, two broods in the brooding-house now and another one to come off in about two weeks....Crops in this section are all that could be desired and the prospects for a big yield are good.—F. S. B., Kelsey, April 19th.

Fresno.

BARLEY UNLOOKED FOR.—Fresno Expositor, April 17: Last year Mr. Kelley of the Fresno colony planted 20 acres of alfalfa, and to be sure of a crop of early hay mixed a lot of bald barley with it. In May he cut the barley, securing a fine crop of hay. He subsequently secured four cuttings of alfalfa hay off the same ground, and during the winter pastured stock on the alfalfa, keeping it cropped close. This spring he was surprised to see a heavy crop of barley make its appearance on the ground, and to-day he has as fine a crop of bald barley as he had last year.

Humboldt.

ORCHARDISTS' CONFERENCE.—Rohnerville Herald, April 10: A meeting of the Humboldt Co. Agricultural Society was held at the Rohnerville town hall last Saturday. Specimens of insect-infested trees were exhibited, showing the presence of the woolly aphis, greasy scale and what is recognized as the carpet beetle. The latter is not considered a dangerous pest, but the greasy scale, like its companion, the pernicious (San Jose) scale, requires the most careful watchfulness of the orchardist. Mr. Campton exhibited a section of limb of an apple which bore the appearance of being the one which grew in Eden's garden, so effectually had aphis done its work. An informal agreement was entered into by members present to give the Petaluma carbolic wash, introduced by Mr. Jameson of the Eureka Soap Works, a thorough test in connection with the depredations of woolly aphis. This as a wash, with the application of gas lime to the soil about the trees, it is believed will have an ex-

terminating effect. M. Perrott exhibited a Dean spray pump just procured for use in his orchards. Next Saturday afternoon at 2 o'clock a called meeting of members of the Humboldt Co. Horticultural Society will be held at the farm of J. T. Manon. The purpose of this meeting is to make application of tree washes and note the results.

FAIR COMMISSIONERS.—Extract from proceedings of Supervisors' meeting, April 12th, as reported in Eureka Times: In the matter of a Fair Commission, it is hereby ordered that John Vance, Wm. Carson, Alex. Connick, J. F. Oonan and Peter Belcher be appointed a commission to take charge of all the county exhibits, both for the Mechanics' and State Fairs, and that their necessary expenses be paid by the county, not to exceed \$1000.

Los Angeles.

PAYING POULTRY.—Orange Tribune, April 13: J. P. Robb of Mountain View brought to J. H. Arnold's store Thursday 46 dozen eggs, the output of 50 hens in two weeks. Who can beat it, and who says poultry does not pay? The chickens were fed principally on cabbage, having but very little grain.

POULTRY ASSOCIATION.—Pasadena Star, April 17: A number of gentlemen in Los Angeles and Pasadena have associated themselves together for the purpose of encouraging poultry-raising by giving exhibitions of fowls at stated times at Los Angeles, and have decided to hold a show and incubator contest next June. The association now has about 60 members, and desires all persons interested in poultry to apply for membership. The following officers were elected for the ensuing year: President, James T. Brown, Los Angeles; C. B. Kelley, T. R. Warren, W. Nelson, L. A.; E. L. French, Verdugo; E. O. Capp, W. H. H. Barnes, Pasadena; H. C. Wilson, A. Stout, C. Malcolm, L. A.; C. A. Loud, Pomona, vice-presidents; secretary, John D. Mercer, L. A.; treasurer, Chas. W. Collins, L. A.; executive committee, C. P. Peterson, S. Schwab, Jos. J. Brady, F. J. Bentler, B. H. Shaw, W. A. Burr, C. J. Barhite, L. A.; A. Mercer, Verdugo.

Merced.

TREES AND VINES SET OUT.—Merced Argus, April 20: About 2000 acres have been planted this year to trees and vines in the colonies around Merced and along the Merced river, many of which will commence bearing fruit, though not in paying quantities, next season. Among the orchards planted this season at Merced is a grove of 1000 orange trees planted by V. C. W. Hooper, on his Yosemite colony, principally Florida and Riverside Navels, that will be in bearing within two years from transplanting; ten acres of smaller trees by Mr. M. D. Atwater on his farm, and a large number by other orchardists and farmers elsewhere surrounding our little city. Thousands of cuttings of olives are being rooted for next season's planting by Mr. Drew on the Galland raisin vineyard tract, Mr. Atwater, the Bahach Co. and others. Among the new vineyards and orchards are 50 acres of Merced-river bottom planted to raisin grapes by Judge Marks, and 35 or 40 of orchard, part of which were planted last year and are now in bearing.

Modoc.

SHEEP LAW.—The Supervisors of the county have passed an ordinance to take effect May 1st, making it a misdemeanor for any person or persons, either as owner, principal, agent, servant or employee, to engage in the business of grazing and pasturing sheep on any of the uninclosed lands in the county of Modoc, without first procuring a license from the tax-collector of said county and paying therefor at the rate of 7½ cents per head for each sheep so to be grazed or pastured. The penalty for violating this ordinance is imprisonment in the county jail not exceeding six months, or fine not exceeding \$500, or both fine and imprisonment.

WILD PLUMS.—Alturas New Era: There are growing on the mountains, in the canyons and in the valleys, great orchards of wild plums, a most delicious fruit, which would, if properly canned, preserved or made into jelly, command ready sale and good prices in the markets of the country. Hundreds of tons of plums could be gathered every year. If there was a market for this fruit, the present yield of the trees would be greatly increased, as the orchards would receive care and attention. The fruit, except what is gathered for home consumption, is now allowed to rot on the trees. A cannery in Modoc would pay.

Placer.

AGRICULTURAL DIRECTORS.—Grass Valley Tidings, April 19: A new agricultural district has been organized in Placer county, to be known as District No. 20, and there has been a spirited contest between Auburn and Newcastle as to which should secure control of the organization. Meetings have been held at both towns and addresses sent to the Governor recommending persons for directors of the new district. The Governor has appointed the following directors: Hollis Newton, John C. Boggs, W. B. Lardner, W. M. Baker, H. T. Powers, Geo. W. Towle, Jo Hamilton and W. D. Perkins.

Nevada.

EXHIBITS AT THE FAIRS.—The Foothill Tidings reports that at the Supervisors' meeting April 15th the following resolution was passed: That there be appropriated from the general fund of the county the sum of \$1000, payable to E. M. Preston, in trust for a committee of

eight, to be composed as follows, viz.: O. R. Clarke, A. B. Driesbach, Chas. H. Mitchell, E. M. Preston, C. E. Mulloy, Alex. Henderson, J. W. DeGolia and Geo. F. Beales. Said appropriation to be used in carrying on the work of inducing immigration to Nevada county, by making exhibits of the products of Nevada county at the State and Mechanics' Fairs of the State of California. * * * It is further ordered that the auditor draw his warrant on the general fund of the county in favor of E. M. Preston, in trust for said committee, for the sum of \$1000, at any time during the month of July, 1889.

Sacramento.

WHOLESALE MUTTON-MAKING.—Record-Union, April 18: The McCabe wire-suspension bridge, which spanned the Cosumnes river about 24 miles out on the Jackson road, is 304 feet long from tower to tower, and 12 feet in width. The cables are 9x7 inches in circumference. Geo. Taverner owns a large number of sheep which he pastures on the other side of the bridge. A couple of weeks ago his herder brought the band, 2110 in number, over the bridge in safety to this side, for the purpose of shearing them. Last Sunday he started to drive them back to pasture, and when the bridge was reached the animals rushed on and over to the other side, but those that were in the lead, seeing a shepherd dog lying down in the road a little way beyond, stopped, while the other sheep kept crowding on; a snap was heard, the floor turned over to one side, and by 10 and 20 at a time the animals were thrown below—some on a sand-bank and others into the water. About 50 reached the other side in safety before the flooring gave way, and a good many rushed back to this side. The scene below was pitiful. There lay a mass of sheep piled one on another, with the flooring of the bridge on top of them, and the poor creatures bleating painfully. About 135 were killed, or injured so that they had to be killed. The mutton was given away to any one who would take it.

San Bernardino.

RAINFALL-DAIRYING.—A subscriber at San Bernardino writes, April 13th: We have had 19.63 inches of rain this season, and it has fallen always just when needed. Many have gone into the dairy business, and it is very much overdone and crowded.

ORANGE SHIPMENTS.—Riverside Press, April 20: Seventy-four carloads of oranges were shipped last week, and but for the rain the number would have reached 125. Griffin & Skelly expect to finish their shipping by the 15th of May. Orange shipments from Riverside for the current season to April 18th amount to 602 cars, or 171,772 boxes.

A SUPERB CLUSTER.—C. A. Crosby brought into our office Tuesday a branch of Malta Blood oranges that beats anything we have ever seen. There were 34 oranges on a stem the size of one's little finger, and all fair-sized, too. They are so close together that there was no room for leaves, being a solid bunch, weighing 14 pounds.

TREE TRANSPLANTING.—A Riverside Press reporter witnessed the removal of a large orange tree from Mr. Everest's block week before last, by means of a patent transplanter. The tree had a ball of earth five feet in diameter and three feet deep, and was removed to Mr. Barney's place. They dig around the tree the right distance, and inclose the ball with a sectional iron basket, so constructed as to be made large or small, to fit the ball of earth. The tree is then lifted on a wagon by means of shear poles and block and tackle or chain lifter. It is claimed that large trees can be removed this way and a crop secured the next year. The weight of the tree and ball transplanted in this case was about 5000 pounds. If this process is successful it will be of great benefit to our valley, and trees need not be cut down to the stump when transplanted. The cost is from \$2 to \$3 per tree.

San Diego.

OTAY FOR OAT HAY.—Press, April 18: Mr. McCool of the Mesa has left at our office a specimen taken from the thousands of acres of wild oats that are now growing spontaneously on the Mesa. These oats stand five feet four inches in height and are well headed out, making excellent feed, and when harvested at the proper time are considered the best of hay.

San Joaquin.

A CRAZY MULE'S DOING.—"W. W." writes us that on the evening of April 16th the son of Col. Gillespie, who lives three miles east of Lodi, was returning from his day's plowing, mounted on a steady old work mule and leading another, when by some mischance he got entangled in the halter of the led animal and was thrown to the ground. Thereupon the mule that he had been riding turned furiously upon him and viciously attacked him with teeth and hoofs, and had not a gang of Chinamen near by come to the rescue, young Gillespie would no doubt have been killed on the spot by the savage brute. As it was, he was very severely injured, his right arm being broken and flesh cruelly mangled.

San Luis Obispo.

PREPARING FOR THE FAIR.—S. L. O. Tribune, April 12: At the meeting Friday afternoon at the office of Secretary Barrett, Directors Warden, Webster, Leedham and Orcutt were present. The coming fair it was agreed should be opened Sept. 24th. Orcutt, Webster and Leed-

ham were appointed committee upon the agricultural display at the pavilion, and Warden, Hollister and Steele on the park and track department. The allowance of \$4500 made by the State it was agreed should be divided equally between the two departments. It was agreed to recommend E. W. Steele for re-appointment as director, his term expiring this year by limitation. A design was adopted for the medals to be given by the association, and the secretary was instructed to procure them.

Santa Cruz.

SUGAR-BEET INTERESTS.—Pajaronian, April 18: Supt. Waters has now a much larger force at work at the beet factory than he has had for several months. He has a crew of laborers boring a new well, and he hopes to strike a flow of water sufficient to supply the beet factory's purposes during the coming season. The improved factory drills are working successfully. On upland, on the San Andreas and near Aptos, beets are up, show a good stand, and are making a fine growth. On the bottom lands the work of planting is in progress.

Tulare.

HORSES FOR BUSINESS.—Hanford Sentinel, April 11: W. J. Newport has raised the standard of his already fine stables by adding a famous imported English Shire horse, Black Prince, to the head of his stud for heavy breeding. Black Prince is a royal specimen of his class, not yet three years old. He weighs 1600 pounds and has all the points of great power and breeding qualities desirable in horses of his class. To head another class of horses he has purchased "Emancipation," an imported Cleveland Bay, as handsome and as perfect a horse as need be, for breeding fine carriage and work horses. Mr. Newport will breed these horses to a lot of excellent young mares of his own raising from his old horse, Robespierre, of the Norman class, and from General Mack, a Morgan horse, of the all-purpose class—horses he has had for years. With good foundations in dams and sires, we may expect to see brought out very satisfactory results. Mr. Newport's horses were here on exhibition March 30th.

MELON-FED PORKERS.—Samuel Walker has fed his hogs all winter on pie-melons, having grown an immense crop of them. Mr. Walker is not given to bragging, and says it is his best judgment that his patch of melons produced 60 tons per acre.

FAIR MATTERS.—Visalia Times, April 18: The Directors of the Agricultural Fair Association of the 15th District, comprising the counties of Kern and Tulare, held a meeting in this city last Saturday. An election of officers was held, with the following result: Jasper Harrell, Pres.; H. P. Perkins, V. P.; Susan Mitchell, Sec'y; C. J. Giddings, Treas. It was decided to hold the fair Oct. 9-12, and the following gentlemen were appointed to prepare a premium list and speed program, viz.: W. H. Fox, W. H. Hammond, H. P. Perkins and R. O. Newman.

THE CHEESE FACTORY AT HANFORD.—Sentinel, April 18: At a meeting held last Saturday at W. R. McQuiddy's office it was resolved to call in the capital stock subscribed, the same to be paid in 30 days, articles of incorporation having been filed, and a Board of Directors elected as follows: O. B. Phelps, O. R. Cross, A. M. Stone, D. Dodge, and V. E. Hill. O. B. Phelps was chosen President, W. R. McQuiddy Sec'y, and Bank of Hanford Treasurer. A set of by-laws was presented by W. R. McQuiddy, J. C. Eiseign and F. L. Dodge, committee. A meeting of the stockholders was ordered for April 27th, to adopt said by-laws. A plan for a factory building 30x60 feet was presented by J. G. Cohoe, the estimated cost of which, as figured by Thompson & Gamble, was \$1300. Mr. Cohoe estimated the cost of the machinery and fixtures at about \$700. The Committee on Location reported several sites in view, but further time was required to decide.

Yolo.

PROLIFIC PEAR TREE.—Woodland Mail, April 13: Geo. A. Pierce, who owns a large ranch five miles southwest of Woodland, has brought to this office a small twig from a pear tree which contains an even 100 embryo pears. The tree has for the past three seasons borne enormous crops. It is now six years old.

OREGON.

TROUBLESOME TULE.—Keno Cor. Oregonian: The lakes are gradually drawing back from the shores, and the tall, heavy water-plants called "tules," deserted by the receding waters and left to starve slowly on rain and dew, are exceedingly troublesome to the lake and river grangers. The unnutritious fodder grows in the midst of the sweet grass and bothers hay-makers in the summer and stock in the winter. As the burning of them in spring, when they are dry, depends upon the direction of the over-varying Klamath winds, the practice is attended with danger. A few weeks ago a "tule" burning resulted in the destruction of an \$800 hayrick belonging to Mills & Rider, and the other day the wind experienced a change of heart and sent the flames leaping over the sagebrush to a barn filled with baled hay, which it destroyed, together with 1200 good rails. These starving vegetables are like tramps—melancholy facts, thrusting themselves into rural feed, getting into haystacks, and adding tons to the heaviness of granger cares. In a year or two, however, they will be things of the past.

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A RARE BARGAIN!

The undersigned offers for sale, on good terms, his CLOVERDALE DAIRY FARM of 600 acres, situated on Squirrel Creek, 2 miles west of Grass Valley. It is well watered by springs and has excellent irrigation facilities, commodious farm buildings, orchard of 160 trees and 6 acres of vineyard. A fine herd of Holstein, Ayrshire, Jersey, and Durham (thoroughbred and grade) cattle for sale with or without the ranch. Holstein and Ayrshire premium bulls on lowest terms, including "Tehama," which, on account of kinship to the herd, can no longer be used in breeding. A good dairy route is also included in this offer.

H. B. NICHOLS, Proprietor.

FOR \$5000.

A Ranch in El Dorado county, near Placerville, contains 160 acres, nearly all fenced in with a four-strand barbed wire fence, a good house of 11 rooms, hard finished, two brick chimneys, cut stone basement with cut stone steps, a good barn and stable, chicken house, work shop and other out-houses, a good well of water, one water ditch for the land, 1000 fruit trees, all in bearing, Peach, Apple, Fig and Cherries, 1000 Grapevines; 80 acres cleared and ready for the plow, all nearly level; about 25 acres woodland, pines, etc., all of which can be cleared; three cows and two calves. The Ranch is five miles from Coloma and nine miles from Placerville. The soil is a red loam, the house stands on the county road and the stage passes it twice every day. A span of horses, a new harness and wagon, plow, harrow and other farming utensils to be given with the Ranch. The Title, U. S. Patent. For further information address, "RANCH," Box 2361, San Francisco, or care of Illustrated Publishing Co., 220 Market St., S. F.

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On Exceedingly Liberal Terms.

The S. E. quarter of Sec. 13, T. 21, R. 23, and all of Sec. 15, T. 23, R. 24, in the artesian belt in Tulare county, will be rented at a nominal rent for winter sowing, if applied or soon. The greater part of this land is rich, level and all ready for the plow. Address L. E. Smith, Pixley, Tulare Co., Cal., or Ranch Owner, office RURAL PRESS San Francisco, Cal.

FOR SALE OR EXCHANGE.

Ranch of 200 acres on Coquille River, Coos County, Oregon; 40 acres bench land, 160 acres bottom, 80 acres under cultivation; 1 1/2 miles from Coquille City, one-half mile from steamer landing. An abundance of fine spring water on place. Price, \$4500 cash, or will exchange for California property in vicinity of San Francisco Bay. For further particulars apply to
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THE VINEYARD.

Reports on the Mysterious Vine Disease.

Hon. J. De Barth Shorb, Viticultural Commissioner, and especially intrusted with the investigation of the mysterious vine disease by both the State Commission and the Los Angeles County Supervisors, has made the following report:

GENTLEMEN:—I have the honor of submitting herewith a report of Mr. Ethelbert Dowlen on the result of our investigation into the grapevine disease, and of the remedies used to check it. While our work and conclusions may not have reached the stage of mathematical certainty, they are so very close to that stage as to leave no doubt, in my mind, that we have solved the cause of the trouble, and also discovered at least one remedy that will remove it. Further study and experiments may enable us to find other remedies as efficacious as the one referred to in this report. To this end we will direct much of our future work and study, and will report from time to time any new discoveries of value that we may make. In practically applying this powder to my own and the San Gabriel Wine Company's vineyards, I have used the ordinary sulphur bellows, familiar to all. I find that six pounds of the powder, used with care, will cover about one acre of vines planted seven feet apart each way, and that a laborer can powder perfectly about three acres daily, nor should he attempt to do more. A close examination after treatment will disclose the facts that the powder has penetrated and filled up all the small indentations and crevices of the spurs and stalk, likewise the spaces between the dry skins and the bark proper, and apparently into the cuticle itself. I think when the disease has badly invaded a vineyard, there should be two applications yearly, possibly three, to achieve the greatest result. One application should be made before the vines are cut, one soon afterward, and the third about the middle of May, and, if after this time, ordinary mildew should set in, this powder may be used in place of the ordinary sulphur. This course should be pursued from year to year, until every spore of the fungus is destroyed. The penetrating quality of the powder is due, primarily, to its extreme fineness, and to the force of the bellows. With all due respect to the very able scientists in Europe and America who are advising the application, in liquid form, of well-known fungicides, when needed, my own experience forces me to entirely disagree with them, and to strongly urge the powder in place of liquid fungicides. I assert that no liquid, however carefully applied, will penetrate where fine dust, under the impulse of a blast of air or ordinary wind, will easily go. Every housekeeper knows, to her sorrow, that while ordinary window fittings will successfully keep out rain, even in a driving storm, the dust will enter into rooms and cover everything over through apertures. Water faucets slightly out of repair will permit the air to escape when the water from which it drives its force can not. Besides this, it is much easier and more economical to apply a powder than a liquid to vines, it matters not what means are used; and finally, and more important than all, in the form of powder the fungicides are more lasting in their effects. As your Honorable Board rendered me assistance in this investigation, I have thought it right and proper that the report should go to you at the same time it was forwarded to the State Board of Viticulture Commissioners. I have the honor, gentlemen, of subscribing myself, very respectfully yours,

J. DE BARTH SHORB.

Ethelbert Dowlen's Report.

Mr. E. helbert Dowlen makes his report to Mr. Shorb, introducing it by saying: "In view of the fact that disease has appeared on the vines, though only to a small extent, it would be well to again call the attention of vineyardists to the necessity of taking measures to arrest the growth of the spores, which are still being produced in large quantities on the back of spurs and main stems, these spores having been found to be plentiful on the newly diseased leaves."

The report is as follows: During the past week a sharp lookout has been kept among the vines for the first signs of the disease on the young canes. Up to the present, only a comparatively small amount of disease has appeared in the vineyard under notice. This satisfactory state of things is probably due to the fact that just as the vines were starting they were freely dressed with a new mixture in the form of powder, which, under certain conditions, evidently has the power of stopping the development of fungus spores. Some of the diseased leaves have been submitted to examination, and in each instance they have proved to be well supplied with fungus spores, many of which have begun to germinate, it being an easy matter not only to distinguish the spores, but also to detect the threads of mycelium, even among the thick coating of hairs with which the new leaves are supplied. The spores are undoubtedly the same as those found on the main stems of the vines, there being at the present time a considerable quantity of such spores present on the spurs. Here it may be well to recapitulate what has been done since the beginning of the present investigation. At the commencement, it was an open question as to whether the trouble was due to (a) abnormal climatic conditions, (b) to some actual disease of the tissues of the vine, or (c) to some parasite, either animal or vegetable. The information collected has answered these questions more or less completely. It is evident now that the climatic conditions are not the cause, neither is there any evidence to support the theory of disease, while with respect to the parasite theory there has not been found any trace whatever of animal parasites. There is thus only the vegetable parasite left, and there is but little room to doubt but that a vegetable parasite in the shape

of a microscopic fungus is at the bottom of the present trouble. All through this investigation one particular fungus has been met with, especially on diseased vines. The more the vines are diseased the greater is the amount of fungus present, while on sound and healthy vines there is very little or none. The fungus growth was first noticed on the upper side of the canes of diseased vines in the shape of brown patches immediately under the cuticle. These have been watched up to present time and some of the forms of fructification have been found. Some of the forms are now to be found on the newly diseased leaves. It was also found that canes which showed an extra abundance of fungus growth in almost all cases died soon after the falling of the leaves, and these dead canes were found to have their tissues more or less invaded by fungus growth, which had evidently grown from the outside. This was also found to be the cuttings which had died after being placed in the ground. A similar state of things was found in some spores from growing vines which had been transferred to the experimental hothouse. Spores taken from diseased canes have been found to germinate readily when kept moistened with plain water, but in contact with the powder mentioned above they will not germinate. This fact possibly explains the failure, up to the present time, of attempts to produce the disease on healthy vines in the hothouse, and it also is probably the reason why these vines are so free from disease. About three weeks since a few spots of disease made their appearance on a Mission vine, also on two Grenache vines. Before and after the appearance of these spots there were some light attacks of mildew. To stop these, the mildewed vines were dressed more than once with the mixture mentioned above, and now the vines which showed the beginning of an attack are apparently quite healthy, and vines which were known to be affected when transplanted have not shown the least sign of disease, but have made a strong and healthy growth. The powder used is composed of sulphur, lime, sulphate of copper and the base of Ongerth's fungicide, in the following proportions:

Sulphate of copper.....	10 per cent.
Lime.....	60 "
Sulphur.....	15 "
Base of Ongerth's powder.....	15 "

These ingredients are ground together to a fine powder, which can be applied best by bellows, care being taken that the powder is well blown into all parts of the vine. Those vineyardists who have already used either of the mixtures mentioned in a former report, No. 20, supplemental report, would find it advantageous to apply another dressing now, so as to destroy the new supply of spores which have been developed during the last few weeks.

ETHELBERT DOWLEN.

The United States to Join in the Investigation.

A letter received by Benjamin Pratt of Orange, Los Angeles county, from the Secretary of Agriculture at Washington, contains the following:

"Realizing how useless it is to devote further time to this matter, in a laboratory where it is impossible to obtain fresh material, we have made arrangements to send an expert to California to investigate the disease. He is a man in whom we have entire confidence, and one we are certain will sift the matter to the bottom. It will, of course, take time to do this, but we will prepare for that. Our man will be provided with the most modern apparatus, and through us he will, at all times, be in direct communication with the most eminent European authorities on vine diseases."

"In conclusion, allow me to say that in this matter we shall need the hearty co-operation of the people, and if this is granted us, we know of no reason why the much-talked-of vine disease will not be conquered."

RECKLESS RUIN OF OREGON TIMBER.—The Nahalem river heads in Washington county, runs through Columbia and Clatsop and Tillamook counties. It is claimed that it is 190 miles long, and of this length probably 160 miles is clear of rock heaps and open to log driving. The upper part, in Columbia and Washington counties, runs through sections of very fine timber; in the lower part of Columbia and upper part of Clatsop the timber has been cleared by settlers, or burned, but from there almost to the mouth there is an unbroken line of very fine timber. The river heads in about 20 miles of its mouth, and makes a circle—a giant horseshoe. Settlers have taken up almost every quarter section of this timber in Columbia and Washington counties. The timber is the finest fir. They are rapidly clearing it away to make farms—many a farmer is cutting down and burning up timber that in a few years would bring him \$250 an acre if left standing, and leave him his farm cleared, and money to fence and stock it, and put up all necessary buildings. This destruction of timber is a calamity to Tillamook county, and we hope the settlers who are fast filling up the lower part of this river will be more provident of the wealth that nature has provided for them.—Tillamook Headlight.

WHY, asks the Pasadena Union, is a rancher so frequently spoken of as "the honest granger"? You never hear any one refer to the "honest real estate agent," "the honest plumber" or "the honest doctor," though you do sometimes hear mention of the "honest lawyer."

MEDICAL MONOPOLY NOT WANTED.

Boston Daily Globe, Feb. 7th, '89.

"In the Legislature of Massachusetts a bill is now pending whose object is to prohibit, under penalty of fine and imprisonment, the practice of 'medicine, surgery or midwifery' by any other than the 'regular' physicians. The attempt to pass such a bill has been made before, but it failed. It is a measure which ought not to pass, because it invades the personal liberty of the citizen; not the personal liberty of the 'irregular' physician only, but of the patient."

"Only yesterday Dr. Holt, in a paper read before the Massachusetts Medico-Legal Society, an organization of 'regular' physicians, complained of the ignorance of his professional brethren as shown in the notorious Robinson poisoning cases."

"This crime," said the doctor, "one of the greatest in our medical history, would never have been discovered but for the suspicions aroused outside the profession." And he called attention to the fact that in five of the poisoning cases the regular physician certified the cause of death to be pneumonia, typhoid fever, meningitis, bowel disease and Bright's disease respectively."

"This shows how far the 'regular' physicians are from being infallible."

"It would seem to be more in accordance with justice and common sense were they to perfect their own knowledge before they appeal to law to prohibit others from healing."

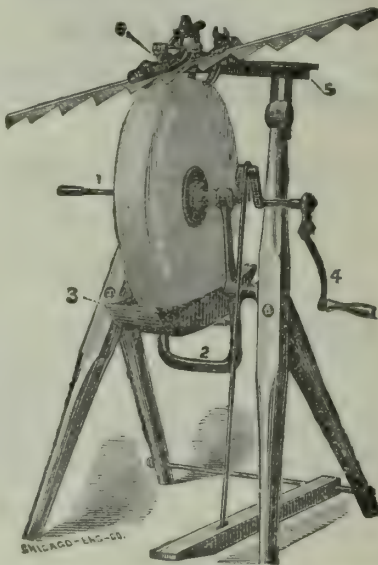
"Not long ago a Globe reporter called upon ten 'regular' physicians on the same day, and described his symptoms in exactly the same language to each. The ten physicians informed him that he was suffering from ten different diseases and gave him ten different prescriptions, each utterly inconsistent with the others."

"The implied claim that there is any certainty in 'regular' medicine as at present practiced, is absurd. All medical practice, outside of the simplest complaints, is more or less guess-work and experiment, whether regular or irregular."

"When Garfield was shot, five of the most famous regular physicians in the country spent three months in probing for the bullet in the region of his left hip, and after his death it was found under his right shoulder-blade." We have but a word to add, which is that the above is the doctrine Messrs. H. H. Warner & Co., proprietors of Warner's Safe Cure, have fought for and promulgated for the past ten years. We know of scores of cases, and so does the reader, where doctors have treated the wrong disease. They say advanced Kidney Disease cannot be cured, yet thousands of cases have been cured with Warner's Safe Cure; yet so bigoted are the medical profession that the majority of them will not use it, although they know they could thereby save many valuable lives; because, forsooth, it is against their fossilized code. Out upon such bigotry. Every method to prolong life should be utilized, and the regular medical profession should be the first to welcome it instead of encompassing themselves in self-conceit and bigotry, doctoring symptoms instead of disease, and sending their patients to the cemetery, poisoned with drugs, but on the death certificate that they died from typhoid fever, meningitis, pneumonia, or some other equally foreign cause."

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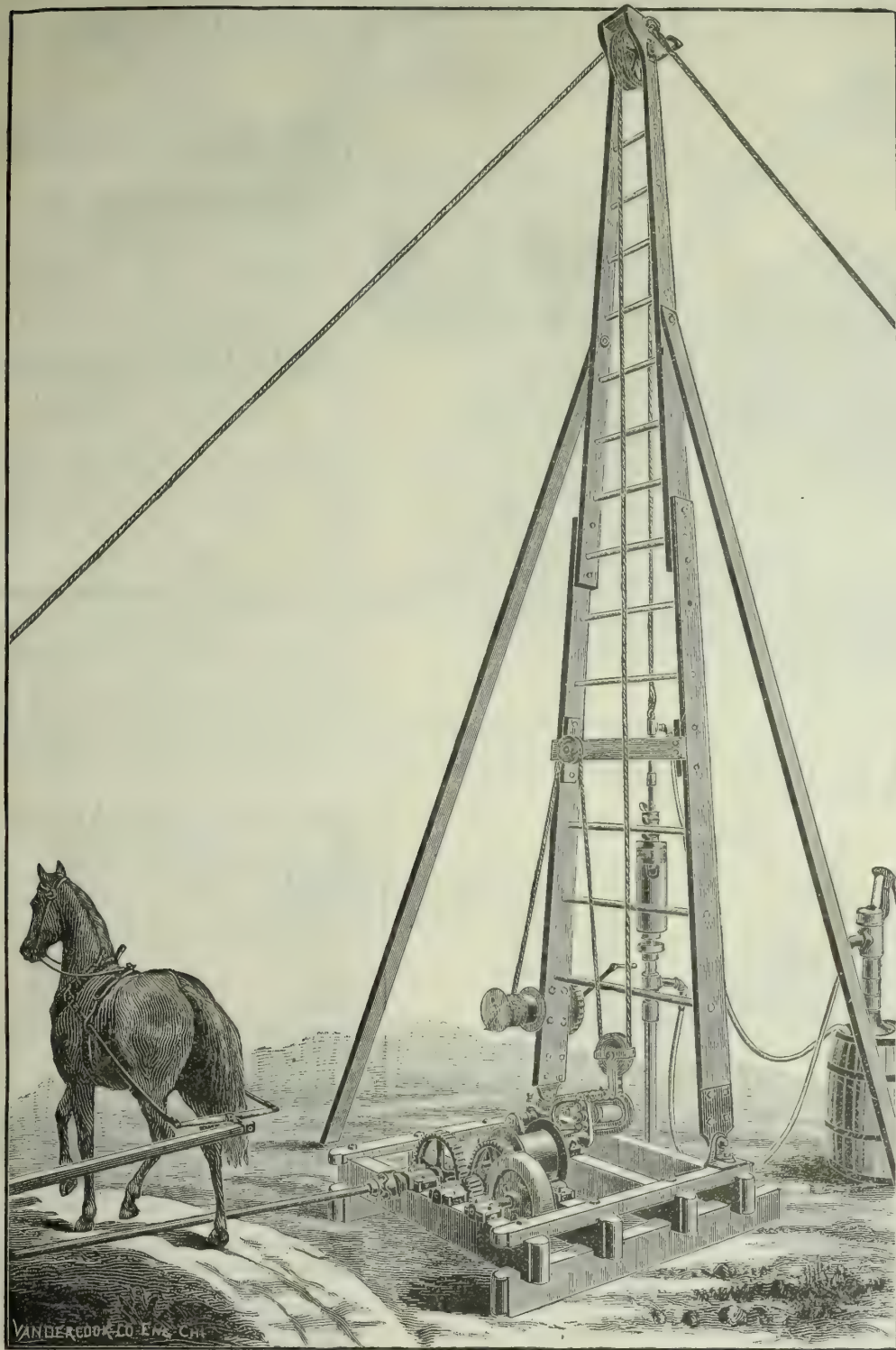
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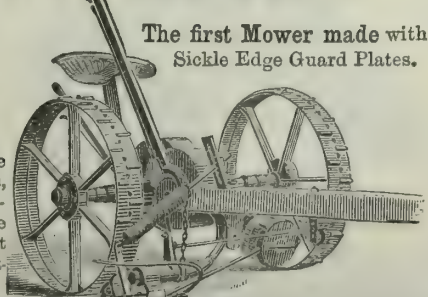
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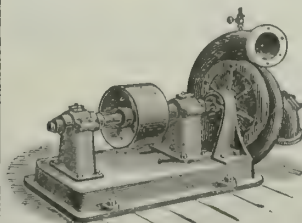
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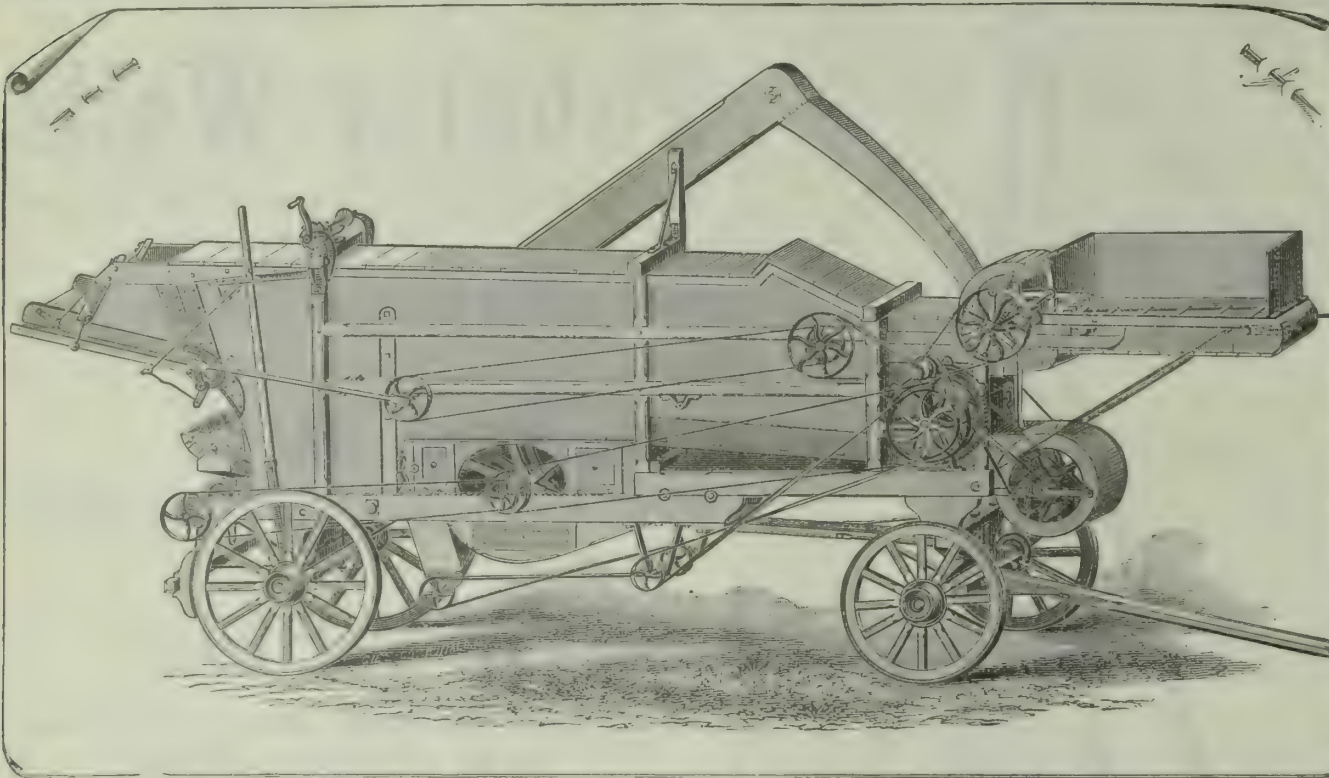


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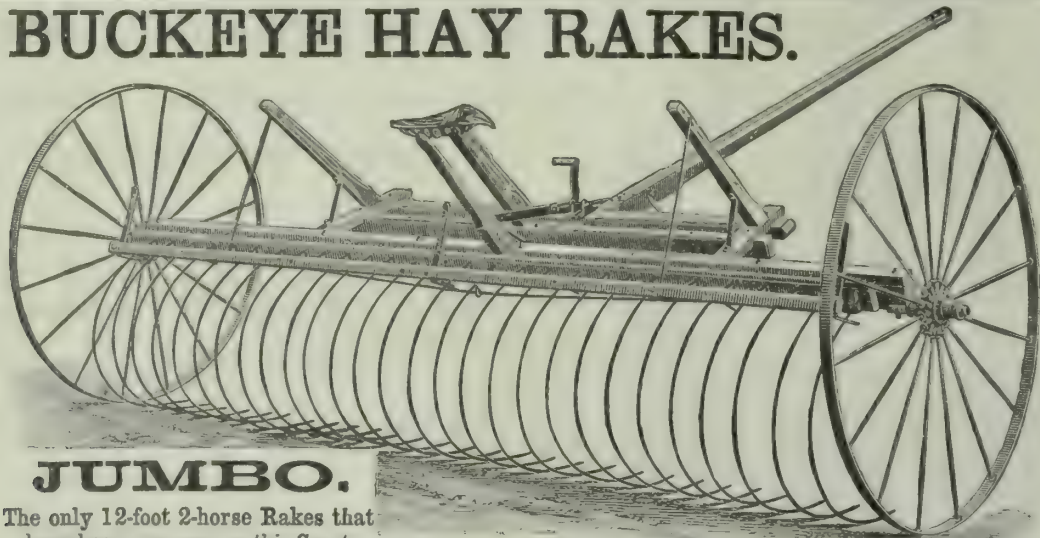
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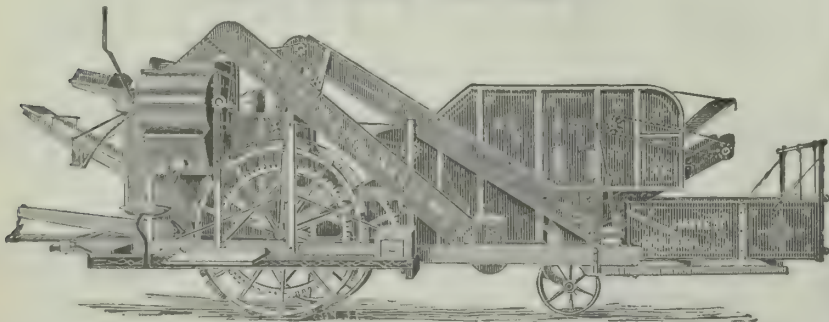
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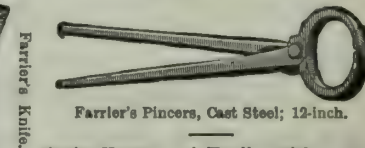
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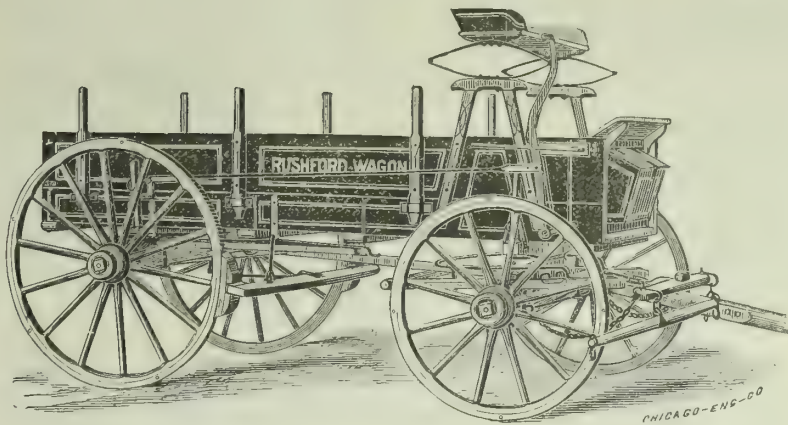
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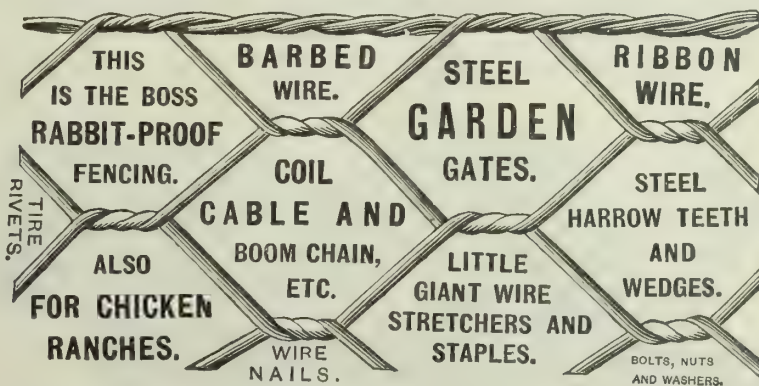
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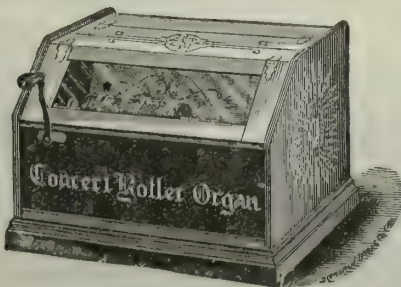
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Sent by mail or express anywhere. Box of 50, \$1.25; of 100, \$2.00; of 200, \$3.50; of 400, \$6.00; preparatory pills, \$2.00.

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ADRIANCE "BUCKEYE" MOWERS.

MAKE SURE THAT YOU BUY THE BEST MOWER MANUFACTURED.

One that will Outwear two of any other make of Machine.

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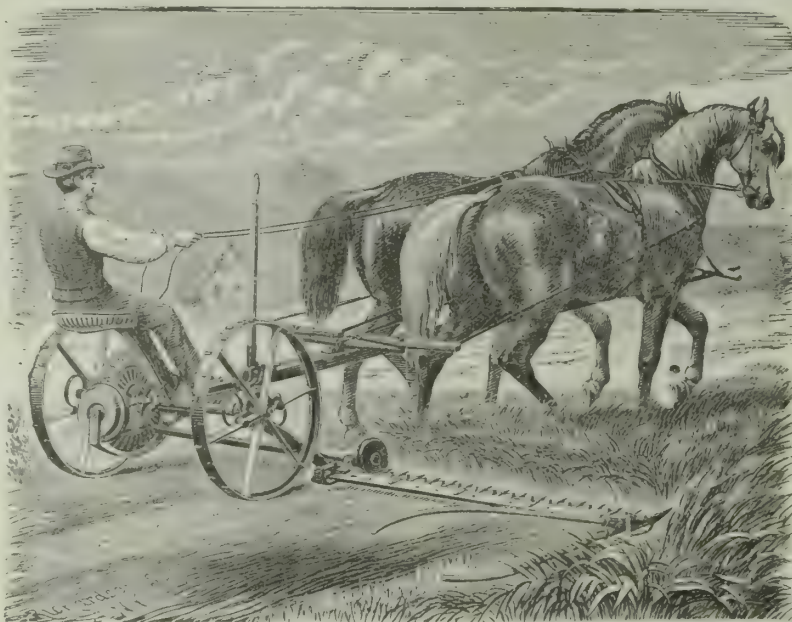
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We caution farmers against buying Mowers on account of the Cheapness in Price. The failures in the past few years of manufacturers who tried to put Cheap machines on the market have caused trouble in getting extra parts for such machines as were sold, and have fully demonstrated the truth of the old axiom,

"The Best is the Cheapest,"

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Size B Cuts a Swath of Four Feet 3 Inches.

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The ADRIANCE REAPER Cuts a Swath of 5 Feet.

Each MOWER is furnished with Two Complete Scythes, Two Extra Knife Sections, Two Extra Guard Fingers, etc.

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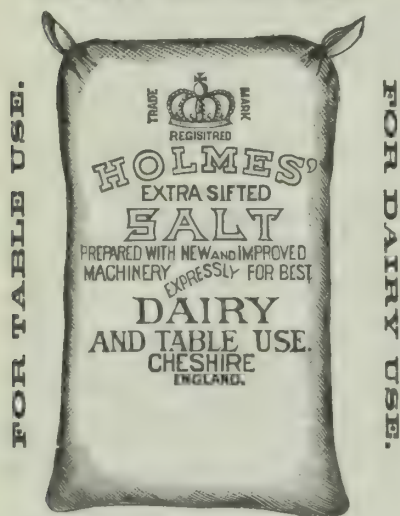
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It is Free from Lime and Pan Scales.
It contains No Insoluble Matter.
It requires No Sifting, as the Grain is very Uniform, and every Ounce can be Used.

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This Fire-proof Brick Building is centrally located, in the healthiest part of the city, only a half block from the Grand and Palace Hotels, and close to all Steamboat and Railroad Offices.

Laundry Free for the use of Families
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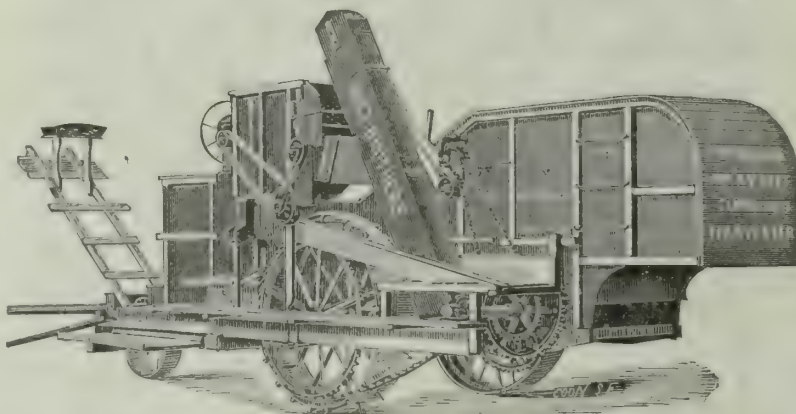
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And upward.

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For Efficiency, Durability, Light Draft and Fine Work it is far superior to any other harvester of the present day.

Those contemplating buying are invited to visit our manufactory and see for themselves. Circulars and testimonials sent on application to

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NEVADA WAREHOUSE & DOCK COMPANY,

Warehouse and Docks, PORT COSTA, CAL. Office, 412 PINE ST., San Francisco.

STORAGE CAPACITY, 100,000 TONS.

These Warehouses are the largest on the Pacific Coast, and are furnished with the latest improvements for the rapid handling and storage of Grain. A Mill attached, supplied with the best and newest machinery for cleaning foul and smutty wheat.

Storage of Grain per Season not to exceed.....	\$1 00 per Ton.
Storage of Grain per Month.....	25 "
Grading Wheat.....	50 "
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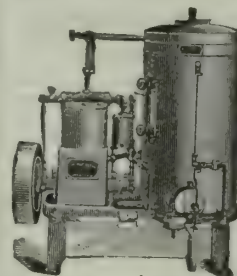
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No Dirt, no Engineer Required.

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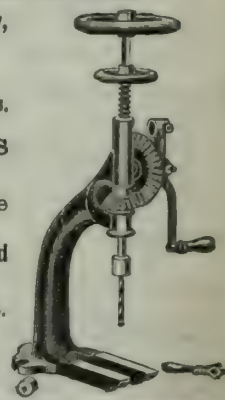
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The Coming Bench Show.

The premium-list of the Pacific Kennel Club's Second Annual Bench Show of Dogs, Poultry and Pigeons comes to us in the form of a neat little pamphlet, with compliments of the California Cackler.

The show is to be held in the Mechanics' Pavilion in this city, May 22d to 25th inclusive. All entries must be made on blanks furnished by Supt. E. H. Williams at his office, 624 Market street, S. F. Entries close Tuesday, May 14th.

Dogs will be received only at the Polk-street entrance and during the 24 hours beginning at 9 A. M. Tuesday, May 21st. A fee of \$3 for each dog must accompany the entry, except in the case of litters whelped in '89, the fee for such a litter being \$5. Exhibitors of dogs get free season tickets.

Wells & Fargo agree to return to the owners free of charge all dogs on which they have been paid full fare to the exhibition.

In the feathered classes, gallinaceous and aquatic, each entry of a pair or a breeding pen must be accompanied by a fee of 50 cents for members of the Cal. Poultry Association and \$1 for non-members. In the columbarian division the entry fee (to all exhibitors) will be 25 cents a pair. Tickets of admission will be issued to exhibitors whose entry fees amount to \$2.

Besides the regular prizes, a large number of special premiums both for beasts and birds are offered, and with such good judges as have been selected, it is hoped the show will be large and fine and the awards prove generally satisfactory.

Byron Jackson.

In noting Byron Jackson's new advertisement on another page, we are reminded that Mr. Jackson has this winter almost entirely remodeled his works in this city, putting up new buildings and filling them with the most improved machine tools and appliances for the manufacture more particularly of his engines, boilers and pumps, into which line he has been putting his best thought for the last few years. He claims to be headquarters for irrigating machinery, and our friends in want of such would perhaps do well to write Mr. Jackson for one of his books, which is a perfect encyclopedia on the subject, or better still, call and see him and be shown through the new shops, which are located at the foot of Sixth street, San Francisco. Mr. Jackson states that the demand for harvesting machinery, especially for hay-stackers and rakes, promises to be very large the coming season.

Sale by J. B. Haggin.

We trust that among the multiplicity of auction sales of live-stock which we have announced to occur in the near future, the sale of the horses of J. B. Haggin will not be overlooked. This sale, like all previous ones, by the same gentleman, is to be without limit and without reserve. No one wishing either good road or draft horses can afford to miss this opportunity. Messrs. Killip & Co., who will conduct the sale, are now sending catalogues to all applicants.

OUR NATIONAL FLOWER.—Messrs. L. Prang & Co. of Boston have hit upon a neat way of ascertaining which flower lies nearest to the American heart by publishing a beautiful brochure entitled "Our National Flower—Which Shall it Be?" It contains handsome chromolithographs of the Mayflower and the Golden Rod, with lines expressive of the claims of each to honor and affection. With each pamphlet is a postal card upon which each reader is requested to record his vote for either of these flowers, or some other one as the National flower. The result of the vote will be announced to each voter on New Year's, 1890. The publication will be found at the bookstores and will doubtless attract much attention.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3.00 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

INTERSTATE CAT TRADE.—A dispatch from Dubuque, Iowa, states that two carloads of cats have been shipped from that city to Dakota, where they are in great demand to kill mice, which swarm in the corn and wheat bins. While in the Dubuque market felines bring from 50 cents to \$1, according to age, the speculator receives \$3 each for them in Dakota.

Beet-Growers' Results at Watsonville.

P. W. M. of Watsonville writes to the Marysville Appeal as follows: I will give you the results of beet-raising of a few farmers here. In all the instances given the work done by the farmer himself or by his teams is reckoned at the price he would have had to pay for hire, so the actual profits are rather larger than they appear. I may add that all the gentlemen named have contracted for an increased acreage this year.

F. Thurwachler, Watsonville, 3 miles from the factory, 10 acres: Plowing, etc., \$50; thinning, \$190; topping, \$153; hauling, \$150; total, \$543. Yield, 194 tons; value, \$972.80; net profit, \$429.80; per acre, \$42.98.

W. M. Gorham, Watsonville, 1½ miles from factory, 5 acres: Plowing, etc., \$25; thinning and hoeing, \$60; topping, \$112.20; hauling, \$85; total, \$282.20. Yield, 132 tons; value, \$570.81; net profit, \$288.61; per acre, \$57.72.

J. B. Henderson, one mile from factory, 10 acres: Expense of cultivating and harvesting (no details given) \$614.83; yield, 260 tons; value, \$1306.96; net profit, \$692.13; per acre, \$69.21.

T. Mitchell, 1 mile from factory, 6 acres: Plowing, etc., \$30; thinning, \$96; topping at 75 cents per ton, \$108; hauling, at 50 cents, \$72; total, \$312. Yield, 144 tons; value, \$621.76; net profit, \$309.76; per acre, \$51.62.

A. F. Richardson, 2 miles from factory, 11 acres: Plowing and harrowing, \$110; sowing, \$6; harrowing after sowing, \$3; 4 days cultivating 1st time, at \$2, \$8; 23 days thinning, at \$1.25, \$28.75; 7 days thinning, at \$1.25, \$8.75; 24½ days thinning and hoeing, at \$1.25, \$30.65; 5 days hoeing, at \$1.25, \$7.50; 9 days hoeing, at \$1.75, \$15.75; 7 days hoeing, at \$1.75, \$12.25; 9½ days hoeing, 2d time, at \$1.75, \$16.65; 1 day hoeing, 2d time, \$1.75; 4 days hoeing, 2d time, \$1.75, \$7; fixing plow, \$2.50; 1 plow, \$15; 3 knives, \$2.35; 2 knives, \$1.50; 4 baskets, \$3.50; topping and loading 170 1-20 tons, at 80 cents, \$136.04; hauling at 50 cents, \$85; plowing up, at 20 cents, \$34; total, \$535.94. Yield, 170 1-20 tons; value, \$921.81; net profit, \$385.87; per acre, \$35.08.

These results speak for themselves, and were obtained in a year when everybody was new to the enterprise. With the experience gained, and by the help of improved machinery, I am confident that every one of the expenses will be reduced, and every succeeding year establish sugar-beet raising as one of the most important and profitable of California industries.

AGRICULTURAL DIRECTORS have been appointed by the Governor as follows: In District No. 8, El Dorado county, R. W. Baum, John McF. Pearson and Frank Miller; District No. 17, Nevada county, J. A. J. Ray and J. R. Nickerson; District No. 18, Inyo county, Finley Melver and Elijah Robinson; District No. 16, San Luis Obispo county, E. W. Steele.

Inducements to Subscribers.

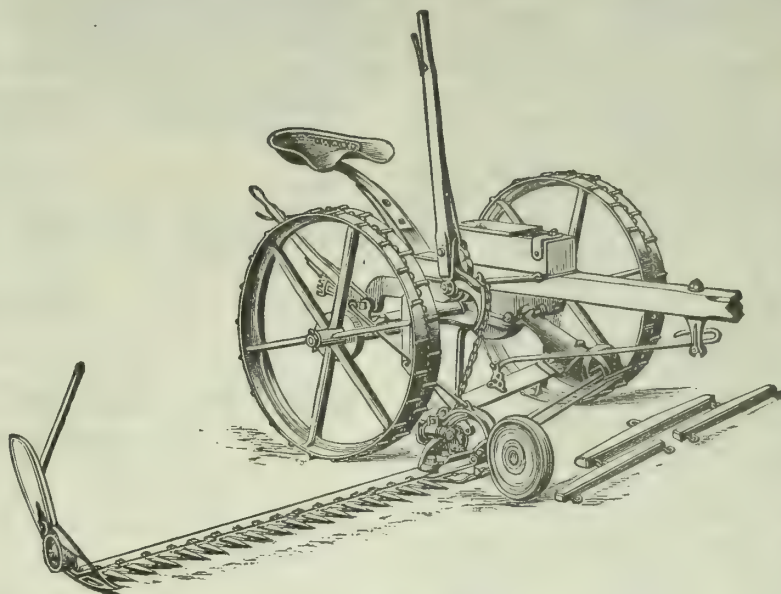
To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, to those who pay fully one year in advance of date, if requested the following articles (while this notice continues), at the very greatly reduced figures named at the right:

- 1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price \$1).....\$0.25
- 2.—Beautiful Poetic Review, entertaining and instructive; 35 pages (a handsome and pleasing present)......25
- 3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt......50
- 4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 120 pages, illustrated......25
- 5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations......05
- 6.—To New Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new".....Free
- 7.—Any of Harper's, Frank Leslie's and most other first-class U. S. periodicals, 15 per ct. off regular rates.
- 8.—Pacific Coast and Eastern Dailies and Periodicals, except special publications, we can usually give 10 to 15 per cent off advertised retail rates.
- 9.—March of Empire, by Mallie Stafford......25
- 10.—Life Among the Apaches, 322 pages, stiff cloth......25
- 11.—\$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application......25
- 12.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.)......25
- 13.—European Vines Described, 63 pages......05
- 14.—Webster's Dictionary, 634 pages, with 1500 illustrations; very handy and reliable......50
- 15.—Architecture Simplified, 60 pages......05
- 16.—Mother Bickerdyke's Life with the Army; patriotic and ably written; 166 pp., cloth, \$1.00......50
- 17.—Ropp's Easy Calculator, cloth, 80 pp......25
- 18.—How to Tell the Age of a Horse......05
- 19.—Percheron Stud Book—French—bound in leather, 192 pages (full price, \$3).....1.00
- 20.—What Every One Should Know; a cyclopedia of valuable information; 510 pp.; cloth; (full price \$1)......50
- 21.—Knitting and Crochet, by Jennie June; 144 pp., 200 illustrations......25
- 22.—Needle Work, by Jennie June; 12 pp., 200 illustrations......25
- 23.—Ladies' Fancy Work, by Jennie June; 152 pp., 700 illustrations......25
- 24.—The Way to do Magic; illustrated, 60 pp......10
- 25.—The Taxidermist's Manual; illustrated, 64 pp......10
- 26.—A Dictionary of American Politics; comprising accounts of political parties, measures and men, and explanations of the Constitution, divisions and practical workings of the Government, together with political phrases, familiar names of persons and places, noteworthy sayings, etc., by Everett Brown and Albert Strauss. (Full price \$1)......50

NOTE.—The cash must accompany all orders. Address this office, No. 220 Market St., S. F.

In writing correspondence, items of information, or on other business, please use a separate sheet. Sample copies of this paper mailed free to persons thought likely to subscribe.

Send for free circular describing most of these premiums, and any further information desired. Inform your neighbors about our offers and paper.

Walter A. Wood Enclosed Gear Mower,
WITH IMPROVED TILTING BAR.

THE LIGHTEST RUNNING MOWER MADE.

The many improvements added to it from time to time make it the best, most durable and serviceable Mower in the market. It has Wide Thread and High Wheels, no Side Draft, Improved Knife Head, Improved Pitman, Improved Wrist Pin, the Best Gearing and Mechanical Construction and more points of Positive Merit than any other Mower.

READ THE FOLLOWING:

LIVERMORE, CAL., April 22, 1889.
Messrs. Frank Brothers, San Francisco, Cal.—GENTLEMEN: We sold a Mower, to-day, to a man who had three acres of FOXTAIL and CLOVER that he couldn't cut with a "NEW MODEL BUCKEYE." He had to back up and clean out every fifty yards, so gave it up and came to town looking for some one to give him a mower on trial, on condition that if the mower did the work he would buy it; so we took a 4-foot-3 "WOODS" and put his team, that only weighs 1-00 lbs. together and they cut it as easy as though they were going on the road. While cutting it there were several farmers on the ground and they all said the "WOODS" was the Boss, and the lightness of the draft beat them, for they thought there was no machine that would cut the FOXTAIL. It has created quite a stir among the machine agents here, and we propose to stay with them. I have sold the Buckeye, McCormick, Victor, Tiger, Benicia and Champion, and I must say that the "WOODS" beats them in every respect. Respectfully,
N. D. DUTCHER.

ADDRESS **FRANK BROTHERS,**
GENERAL AGENTS,

33 and 35 MAIN STREET,

SAN FRANCISCO, CAL.

THE KINDERGARTEN, an educational monthly whose name tells its aim in a single word, was started in April, 1888, has won a merited and marked success, and enters its second year with high promise. Cora L. Stockham and Emily A. Kellogg are the editors; and Alice B. Stockham & Co.—already favorably known to many of our readers through "Tokology"—are also the publishers of this excellent little magazine for teachers and parents, at 161 La Salle St., Chicago, Ill.

EARLY CHERRIES.—We mentioned last week that Vacaville had shipped cherries on the 13th, closely followed by Newcastle. Marysville reported her initial shipment on the 15th, Visalia came three days later, and the "first cherries of the season" at San Leandro were picked April 21st.

It Pays to Advertise in the Rural Press.

Andrew Smith, the well-known breeder, whose famous swine are so much sought after, reports the following sales and shipments since April 1, 1889: 1 boar and 2 sows to Kerbyville, Oregon; 1 boar to Albany, Oregon; 1 boar to Honolulu, H. I.; 1 sow with pig to Hilo, H. I.; 1 boar to Sebastopol, Cal.; 1 boar to San Rafael, Cal.; 1 boar to Newhall, Cal.; 1 boar and 5 sows to Petaluma, Cal.; 1 boar and 2 sows to South America; 10 sows to Honolulu; 1 boar and 1 sow to Belmont; 1 boar to Millbrae; 1 boar to Little River; 1 boar and 2 sows to Colma; 1 boar to Lodi. He considers the Rural Press the best advertising medium for him on the coast. He is daily in receipt of inquiries about his stock, from parties who have "read his advertisement in Rural Press."

Honors to George Ertel.

One of those pleasant occurrences, which we always like to notice, took place at the hay-press works of Geo. Ertel & Co., Quincy, Ill., on the 11th, when Mr. Geo. Ertel was presented by his employees with a handsome gold-headed cane, suitably engraved, as a gentle reminder that it was his 59th birthday. The local press was represented, and with a pardonable pride the members were shown by Mr. Ertel through his new works, recently completed, which are the largest exclusive hay-press works in the United States.

Cheap Money for Farmers!

\$550,000 TO LOAN ON RANCHES ON MORTGAGE; large sums below market rates. S. D. HOVEY, 318 Pine street, San Francisco.

\$500 000

TO LOAN AT EIGHT PER CENT PER ANNUM, AND mortgage tax paid by lender on approved security in Farming Lands. A. SCHULIER, 106 Leidesdorff street, San Francisco.

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Patent Agency.

OUR U. S. AND FOREIGN PATENT AGENCY presents many and important advantages as a Home Agency over all others, by reason of long establishment, great experience, thorough system, intimate acquaintance with the subjects of inventions in our own community, and our most extensive law and reference library, containing official American and foreign reports, files of scientific and mechanical publications, etc. All worthy inventions patented through our Agency will have the benefit of an illustration or a description in the MINING AND SCIENTIFIC PRESS. We transact every branch of Patent business, and obtain Patents in all countries which grant protection to inventors. The large majority of U. S. and Foreign Patents issued to inventors on the Pacific Coast have been obtained through our Agency. We can give the best and most reliable advice as to the patentability of new inventions. Our prices are as low as any first-class agencies in the Eastern States, while our advantages for Pacific Coast inventors are far superior. Advice and Circulars free.

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TELEPHONE No. 658.

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Niles' new manual and reference book on subjects connected with successful Poultry and Stock Raising on the Pacific Coast. A New Edition, over 100 pages, profusely illustrated with handsome, life-like illustrations of the different varieties of Poultry and Live-Stock. Price, postpaid 50 cts. Address PACIFIC RURAL PRESS Office, San Francisco, Cal.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

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H. P. Mohr, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

H. S. SARGENT, Stockton, importer and breeder of registered Jersey Cattle. Correspondence solicited.

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENMAN & MCNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal. Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. B. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton), Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Shorthorns & Herefords, Wildflower Farm, Fresno or Sac'to.

OOTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. HOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAXE & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

GEO. BEMENT & SON, Maple Grove Farm, Oakland P. O., breeders of Ayrshire Cattle & Essex Swine.

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WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

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W. C. DAMON, Napa, \$2 each for choice Lt. Brahmas, Wyandottes, P. Rocks, White and Brown Leghorns. Eggs, \$2 per 13. Best Seed for sale.

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A. C. RUSCHHAUPT (successor to Jas. T. Brown and W. B. Nisbet), box 43, station B, Los Angeles, Cal. Yard on State St., Brooklyn Heights, importer and breeder of 15 varieties thoroughbred Poultry. Fowls and Eggs at reasonable prices. Circular free.

O. J. ALBEE, Lawrence, Cal. W. Langshans, W. Wyandottes, P. Rocks, L. Wyandottes, Bl. Langshans & B. Leghorns. Eggs, white varieties, \$5 & \$3, others, \$2.

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Trotting Bred Stallions, Mares and Geldings

Bay District Track

ON WEDNESDAY, MAY 15, 1889.

Selections will be offered from Breeding Farms of M. SALSBUURY, M. W. HICKS, F. H. BURKE, MRS. SILAS SKINNER and other noted breeders. Entries will close April 1st. Only pedigreed stock will be received. Apply to

KILLIP & CO., Auctioneers,

22 MONTGOMERY ST., SAN FRANCISCO



ANNUAL SALE



Road and Harness, Work and Draft

THOROUGHbred RIDING HORSES

AND SHETLAND PONIES,

Property of J. B. HAGGIN, ESQ.,

FRIDAY, MAY 3, 1889,

Bay District Track, San Francisco.

CATALOGUES NOW READY.

Horses may be seen at the Track after the 30th of April.

KILLIP & CO., Auctioneers, 22 Montgomery St., San Francisco.

GRAND CATTLE SALE!

GALLOWAY,

POLLED ABERDEEN ANGUS,
DEVON and DURHAM
CATTLE,



To be sold by order of the Executor of the late

SETH COOK,

At 11 o'clock A. M., at the

Bay District Track, San Francisco,

THURSDAY, MAY 16, 1889.

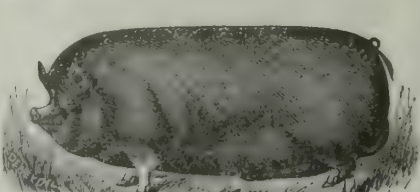
The sale will comprise imported Bulls and Cows and their produce. This is the most superior lot of cattle yet offered for sale in California, and should command the attention of breeders throughout the Coast. Catalogues will be ready Saturday, April 13th.

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Young Stock for sale at reasonable prices. Every animal guaranteed.

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SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17. Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with record better than 2:30, and the dams of 5 with records from 2:18 to 2:25.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:26; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:25.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Bright, a son of Mambrino Chief, the sire of King Wilkes, 2:23 and Lady Turpin, 2:23. Third dam by Cripple, a son of Medio (thoroughbred). Fourth dam by American Eclipse; he by Durco.

Strathmore by Rydyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Stamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thoro, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:03, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Manineta, 2:10, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Tru-tee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.

Vol. 1, American C. B. S. B.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportsman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" class, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire beating 20 others.

First dam Whalebone (355), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16½ hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 24; he by Master George 203, by King George 160; he by King George 153.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teedale, and second premium at Bowes, England, in 1886; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

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Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

PASTURAGE, \$4 per month; Hay and Grain, \$10. Best care taken, but no liability assumed for accidents or escapes.

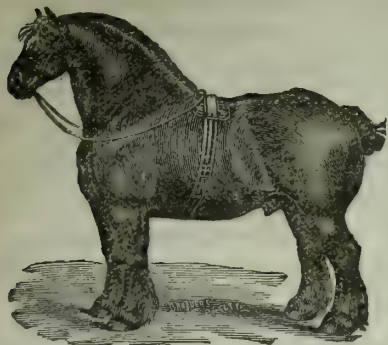
Mares sent to Fashion Stables, Oakland, Benne's Stables, Martinez, or to Geary & Grindley's Stables, Baywards, will be forwarded to Farm Free of Charge.

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"ROYAL TOPSMAN," Just Imported,

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I offer for sale at my ranch, on Clear Lake, near Lakeport, pure-bred Percheron Mares and Horses of the choicest families. Pedigrees recorded in the Percheron Stud Book of France and America. They are principally the Brilliant, Caesar strains of blood. Address

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It prevents disease, regulates the bowels and urine, strengthens the kidneys, prevents scouring, colic and leg swelling, loosens the hide, promotes the appetite, cures cough, destroys worms, and produces a fine glossy coat. \$7.50 per 100 pounds. Manhattan Egg Food, in bulk, 12 cents per pound. Ask your dealer, or send to 576 Howard Street, San Francisco.

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Of Short Horn Cattle and Dairy Cows.

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Of the highest breeding and most popular strains. We carry a large stock of young, vigorous stallions and mares at all seasons, imported young and matured on our farms, thus fully acclimated and sure breeders. Prices low and terms easy.

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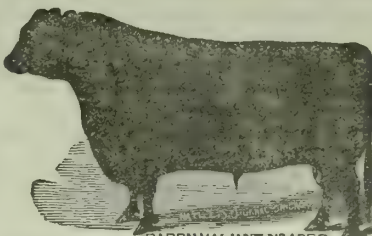
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CULTURE



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SHEEP MEN,
ATTENTION!



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By order of Probate Court, in the matter of the Estate of
JAMES ROBERTS, Deceased.

I will sell at private sale to the highest bidder, for cash, on or after May 1, 1889, at the Ranch in Irvington, or at my office in Oakland, 946 Broadway, Alameda Co., Cal., the entire flock of Thoroughbred French Merino Sheep, consisting of 280 (Two hundred and eighty) Ewes, 79 (seventy-nine) Bucks, and 180 (one hundred and eighty) Lambs. These Sheep are the get of the original flock imported by Robert Blacow of Centerville. Mr. Roberts, as foreman, having charge of the flock for several years prior to Mr. Blacow's death, after which he became the owner of the entire flock, which he has kept purely for stock purposes.

All interested in Thoroughbred Sheep should be familiar with this flock, which has become famous under the care and management of Mr. Roberts; always receiving first premiums, having been sold to Europe, South America and all parts of the United States; individual members having repeatedly sold for from \$500 (five hundred) to \$1500 (fifteen hundred) each. Sheep Men should seize this opportunity to secure some, as they must be sold to settle up the Estate. Address, JAMES STANLEY, Administrator Estate J. Roberts, Deceased, Mission San Jose, or 946 Broadway, Room 17, Oak and, Cal.

THOROUGHbred
SPANISH MERINO SHEEP.

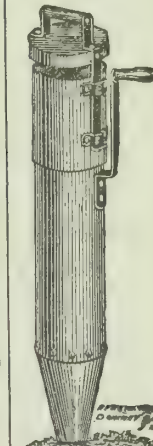
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SMOKER.

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And forcing the Smoke and Gases
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Does away with poisoned wheat
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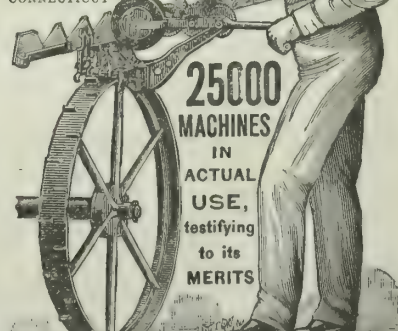
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S. F. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, April 24, 1889.

Trading in garden truck the past week was fairly active, but in cereals, hay, etc., it was light, with buyers confining themselves to actual requirements. Favorable crop prospects are against sellers. Money continues easy both in this country and abroad, with no speculative movements reported. The wheat market abroad has been fairly steady, although at the close it appears to be a shade weaker. The following is to-day's cablegram:

LIVERPOOL, April 24.—Wheat—Very dull. California spot lots, 6s 10d to 7s 1d; off coast, 35s 3d; just shipped, 35s; nearly due, 35s 3d; cargoes off coast, slow; on passage, very little demand; Mark Lane wheat, weaker; wheat on passage to Continent, 32d, 000 qrs.; wheat and flour on passage to U. K., 1,858,000 qrs.; wheat in Paris, quiet; flour, steady.

Foreign Review.

LONDON, April 22.—The *Mark Lane Express*, in its review of the British grain trade for the past week, says: English wheat during the past week has been slow of sale in the provincial markets at 28s 3/4 quarter. Foreign wheats are dull. Flour is firmer. American mixed corn is 3d dearer. The price of oats is maintained. Barley, beans and peas are sold with difficulty.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Apr.	May.	June.	July.	Aug.	Sept.
Thursday....	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2
Friday.....	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2
Saturday....	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2
Monday.....	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2
Tuesday....	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2	79 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday....	35 1/2	35 1/2	35 1/2	Steady.
Friday.....	35 1/2	35 1/2	35 1/2	Steady.
Saturday....	35 1/2	35 1/2	35 1/2	Dull.
Monday.....	35 1/2	35 1/2	35 1/2	Slow.
Tuesday....	35 1/2	35 1/2	35 1/2	Inactive.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	May.	June.	July.	Aug.
Thursday.....	84 1/2	80 1/2	87 1/2	86 1/2
Friday.....	84 1/2	80 1/2	87 1/2	86 1/2
Saturday.....	84 1/2	80 1/2	87 1/2	86 1/2
Monday.....	84 1/2	80 1/2	87 1/2	86 1/2
Tuesday.....	84 1/2	80 1/2	87 1/2	86 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	Apr.	May.	June.	July.
Thursday.....	86 1/2	87 1/2	87 1/2	82 1/2
Friday.....	86 1/2	87 1/2	87 1/2	82 1/2
Saturday.....	86 1/2	87 1/2	87 1/2	82 1/2
Monday.....	86 1/2	87 1/2	87 1/2	82 1/2
Tuesday.....	86 1/2	87 1/2	87 1/2	82 1/2

NEW YORK, April 24.—Wheat—84 1/2 c for cash, 83 1/2 c for May, 84 1/2 c for June, 85 1/2 c for July and 85 1/2 c for August.

CHICAGO, April 24.—Wheat—79 1/2 c for cash, 80 1/2 c for May, 81 c for June and 78 1/2 c for July.

Eastern Wool Markets.

NEW YORK, April 19.—Buyers are taking very little wool out of seaboard markets, and prices are at lowest quotations for several months. There is no general change in comparison with last week or the week before, but the decline since the beginning of the year is noteworthy. At Boston there is even less activity than in New York and Philadelphia. Manufacturers are taking supplies only as they need them to work up, and the outlook for the spring is not satisfactory, while the prevailing dullness is almost universal. It is especially noticeable in the case of fine fleeces. Arrivals of new wool from Southern Texas and California so far have been of poor quality, but this year's clip, as a whole, promises to be unusually good, and throughout the West holders are exceedingly confident. Shearing is under full headway in Texas and Southern California, and has begun in Kentucky, but current asking prices are higher than Eastern dealers are likely to pay. Choice wool has sold readily at London sales, competition for Australian and Cape of Good Hope merinos being specially active. On some descriptions there was an advance of 1/4 d early this week. Auctions will be resumed on the 24th. Trade has reached very small proportions at Boston this week, and there are no new features. Ohio and Pennsylvania fleeces are particularly dull, and delaines and combings show no better. Considerable lots of Australian wool have arrived of late, much of it going directly to manufacturers. There is some improvement in the demand for carpet stock. Current quotations are as follows in comparison with last year and the year before: Ohio and Pennsylvania X, 32c; Ohio and Pennsylvania XX, 33c; Ohio and Pennsylvania XXX, 34c; Michigan X, 30c; fine Ohio delaine, 35c; No. 1 combing, 38c; Texas Spring, 12 months, 20c; Boston sales for the week, 1,399,000 pounds; last week, 1,975,100 pounds; last year, 2,300,800 pounds. At Philadelphia wool continued dull, but stocks are concentrating in few hands, and there is a growing indisposition to press business at the expense of prices, as dealers anticipated new wools will be held at comparatively high rates in country markets. Buyers, however, are very indifferent, and are disposed to hold off for better assortments and fair test of the effect of larger offerings on Eastern markets.

BOSTON, April 18.—The wool market for the past week shows but little change since the last report, but continues dull with but few buyers for the small stocks offered. The only feature worthy of notice is the action of the United States Appraiser at Philadelphia in classifying worsted goods as woolsens. This action has been indorsed by the Board of United States Appraisers, and may be sustained by the Secretary of the Treasury. If it should be, the beneficial effect of this change on the goods and wool market will, of course, be eventually felt, but it is doubtful if any immediate results will be noticed owing to the immense amount of worsted goods and woolsens

already imported and on hand. This market, as well as the large stocks of heavy weight goods and clothing, was carried over from the past winter. We quote very good Michigan at 30 cents. There is nothing doing in California or Oregon wools.

Miscellaneous.

NEW YORK, April 20.—Limas are firmer at \$3.15. Recent fair arrivals sold ahead.

The stock of California raisins is estimated at 20,000 pounds. Good lots are going out fast at full rates; \$1.10 to \$1.40 for Two Crown, \$1.40 to \$2.50 for Three Crown, and \$1.70 to \$2.60 for Layers.

A carload of prunes in fine order was offered at 7c.

A wholesome feeling prevails in hops, on indications of further calls from England. Shippers have paid 22 for choice. Some holders want 23 for selections, but the market is not to that point yet. Brewers are using good small lines at 20 to 21c. Fair grade Pacific, 14 to 16c. The export of the week was 1206 bales.

Local Markets.

	S. S.	B. S.	B. '89.	'S. '89.	Dec.
Thursday....	137 1/2	139 1/2	127 1/2	127 1/2	127 1/2
Friday.....	137 1/2	139 1/2	127 1/2	127 1/2	127 1/2
Saturday....	137 1/2	139 1/2	127 1/2	127 1/2	127 1/2
Monday.....	137 1/2	139 1/2	127 1/2	127 1/2	127 1/2
Tuesday....	137 1/2	139 1/2	127 1/2	127 1/2	127 1/2

—New.

BARLEY.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday....	68 1/2	68 1/2	88 1/2
Friday.....	68 1/2	68 1/2	88 1/2
Saturday....	68 1/2	68 1/2	88 1/2
Monday.....	68 1/2	68 1/2	88 1/2
Tuesday....	68 1/2	68 1/2	88 1/2

BAGS—The market is fairly active for Calcuttas, at 8c spot, 8 1/2 c June and 8 1/2 c July. Jobbing from stores at an advance.

BARLEY—The market shows a steadier tone, with holders asking more money. In futures, trading is still slow, due chiefly to a wide difference between buyers and sellers. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—100 tons, 81 1/2 c; 200, 81 1/2 c. Afternoon Session: Buyer 1889—600 tons, 81 1/2 c; 200, 81 1/2 c. Seller 1889, new—100 tons, 74 c. cwt.

BUTTER—Hard-rolled, good-keeping, fancy butter is a shade higher, with a firm tone reported. In other grades the market is easy. The warm weather keeps retail dealers from stocking up beyond immediate wants. Receipts the past week were lighter. Packing is still in order.

CHEESE—Continued free receipts and only a fair demand keep prices in buyers' favor.

EGGS—For Easter there was a good demand and prices slightly higher, but toward the close the market is weaker, at a slight shading in prices.

FLOUR—The market is barely steady at unchanged prices.

WHEAT—The market is very sensitive, responding with an advance to any inquiry, and dropping off with orders filled. This shows that stocks are well in hand. Reducing flour to wheat, the exports hence so far this season aggregate about 650,000 tons, against about 445,000 tons for the like time in 1887-88. On Call, futures have been fairly active, with the bear element apparently working for lower prices. The following are to-day's Call Board sales: Morning Session: Buyer 1889—200 tons, \$1.36; 700, \$1.36 1/2; 100, \$1.36 1/2. Seller 1889—100 tons, \$1.25 1/2; 200, \$1.24 1/2; 500, \$1.25. Seller 1889—new—500 tons, \$1.25 1/2. Buyer season—200 tons, \$1.32 1/2 cwt. Afternoon Session: Buyer 1889—100 tons, \$1.36 1/2; 200, \$1.36 1/2; 300, \$1.35 1/2; 100, \$1.35 1/2. Buyer 1889, after August 1st—200 tons, \$1.31 1/2; 100, \$1.31; 100, \$1.30 1/2. Seller 1889, old—200 tons, \$1.25 1/2; 100, \$1.25 1/2. Buyer season—100 tons, \$1.32 1/2; 500, \$1.32 1/2. December—300 tons, \$1.29 1/2 cwt.

[COMMUNICATED.]

Market Information.

Produce Receipts.

Receipts of produce at this port the past week were as follows:

Flour, qr. sks....	134,909	Middlings, sks....	2,990
Wheat, cts....	412,374	Alfalfa, "....	—
Barley, "....	15,374	Chicory, "....	115
Rye, "....	881	Broomcorn, bds....	149
Oats, "....	8,071	Hops, bls....	60
Corn, "....	9,164	Wool, "....	5,794
Butter, "....	1,690	Hay, tons....	2,437
do bxs....	1,017	Straw, "....	60
Cheese, cts....	1,012	Wine, gals....	262,550
do bxs....	233	Brandy, "....	6,730
Eggs, doz....	154,360	Raisins, bxs....	—
Beans, cts....	3,948	Honey, cs....	61
Potatoes, sks....	14,928	Walnuts, sks....	155
Onions, "....	2,091	Flaxseed, sks....	162
Bran, sks....	12,617	Mustard, sks....	12
Buckwheat, sks....	—	—	—

Cereals.

As indicated in last week's issue, the wheat market drifted to lower figures, under unfavorable foreign advices and a scarcity of tonnage. The available supply in this State is light, but the flattering outlook for a large crop causes more of a selling pressure than would otherwise obtain. It now looks as if large operators are manipulating the market so as to have a low range of values obtain at about harvest-time; indeed, it is claimed that No. 1 white shipping of 1889-90 crop will sell at about \$1.25 per cental after the season is fairly opened. The light supply of disengaged vessels in port and to arrive, considering the large crop prospects, are greatly in favor of the bear element, who are still further strengthened by the well-established fact that tonnage the world over is very stiff at a higher rate of charters than has obtained for several years past. There can be no doubt but the prospects of good outward charters for wheat cargoes from this port will cause, within the next 60 days, a large increase in the tonnage to head this way, particularly from the Australasia and China waters.

Barley has exhibited more steadiness at the lower figures, with buyers seemingly having confidence, owing to values being below the cost of production.

At the low prices, more is going into consumption. The supply of choice, plump, bright grades is light. Poor grades predominate.

Oats continue to drag at the low prices heretofore current. Buyers are not tempted even by concessions to anticipate, to any great extent, their wants.

Corn has held to fairly firm prices throughout the week. The demand is slow, but holders do not appear disposed to press the market, although meeting the demand at current quotations, with, at times, slight concessions to place a fair-sized consignment.

Rye is weak, at a lower range of values.

Crop advices continue favorable in this State, Oregon and Washington Territory. In the latter an increased acreage is reported to have been put in wheat.

Beerbohm's London cable of April 23d reports as follows: Nineteen arrivals of wheat cargoes off coast and 19 awaiting orders. Farmers' delivery of wheat the past week, 51,010 qrs; average price, 29s 10d. Weekly imports to United Kingdom—flour, 95,000 bbls; wheat, 155,000 qrs; corn, 139,000 qrs. Shipments of wheat from Calcutta, Bombay and Kurrachee to the United Kingdom, 37,500 qrs; to the Continent, 17,500 qrs.

Fruit.

The first gooseberries of the season were received yesterday (Tuesday). They were placed at 10 cts a pound.

Raspberries and also strawberries are coming in more freely, causing a shading in values. With continued warm weather a lower range of values is expected to obtain for strawberries.

Cherries are coming in quite freely for the season. Receipts are steadily increasing, consequently buyers confine their purchases.

Apples are going out.

Oranges came in very freely the past week, but met with fairly active sales, owing to the warmer weather creating a larger local consumption and a freer shipping inquiry from the north. Limes and lemons are in good inquiry.

In dried fruits there is nothing of special moment to report since last week's issue. The receipts of apricots, prunes and dates, and other dried fruits are light. The outward movements are also light. In canned fruits the situation is unchanged, and promises to continue so until a lower range of freights by rail to the East is secured.

Live-Stock.

Heavy receipts of bullocks, mutton sheep and hogs have weakened the market, with a weak feeling at the close. The consumption is larger, yet dealers are suspicious of the situation, owing to increasing supplies of seasonable vegetables and fruits. The warm weather is against butchers keeping much meat in their stalls. For fresh milk cows there is a fair demand at unchanged prices. The prospects of cheap feed are in favor of keeping cows to a better advantage. In horses there is nothing new to report. The inquiry for farm animals is reported to be fair, but for the cities it is slow as yet.

The market for dressed cattle is quoted as follows (to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent):

HOGS—On foot, grain fed, 6c 1/2 c lb.; dressed, 9c 1/2 c lb.; soft, 5c 1/2 c lb.; dressed, 8c 1/2 c lb. Stock hogs, 4c 1/2 c lb.

BEEF—Stall fed, 5c 1/2 c lb.; grass fed, extra 6c 1/2 c lb.; first quality, 5c 1/2 c lb.; second quality 4c 1/2 c lb.; third quality, 4c 1/2 c lb.; bulls and thin cows, —

VEAL—Small, 5c 1/2 c lb.; large, 6c 7c.

MUTTON—Wethers, 5c 1/2 c lb.; ewes, 5c 1/2 c lb.; lamb, spring, 7c 9c lb.

Feedstuff.

In ground feed, the market has a weak tone, with buyers not disposed to stock up. To this, possibly ground barley may be excepted, owing to its selling at lower prices than before known.

Hay has remained quiet, but fairly steady, under light offerings, and consumers not buying beyond immediate wants. The outlook for the crop is of a very favorable character. It is claimed that much of the overflowed lands will turn out good crops later on in the season.

Vegetables.

Seasonable vegetables fluctuate in prices from day to day, being governed by receipts. Those of peas are increasing, as are rutabars.

In potatoes, the market for old is slow, but for new it is active at fairly steady prices, owing to consumption running chiefly on the more matured.

Choice onions continue scarce, but the high prices restrict the consumptive demand. Crop prospects are good, notwithstanding much of the land devoted to their cultivation is said to be flooded. Poor onions are slow.

Wines.

The overland shipments by the Southern Pacific in last month aggregated 457,000 gallons. In his report to the United States Department, Geo. W. Roosevelt, Consul at Bordeaux, gives statistics relative to the 1888 wine harvest of France. The vintage of 1888 amounted to 797,707,000 gallons, an increase of 151,874,000 gallons over the yield of 1887, although being 35,000,000 gallons less than the average yield of the last ten years. Much of the good result of the last vintage is due to American wines. The vineyards of the Midi were the first to suffer from the invasion of the phylloxera, and the viticulturists of that section were the first to employ American vines to combat its ravages, and their value was most emphatically demonstrated in the last harvest. In many localities entire vineyards have been replanted in these vines, upon which French vines have been grafted. The greater part of these vines were in full bearing in 1888, and not only excited the admiration of all, but an eager desire in proprietors who up to this time had rejected American vines as a means of saving their vineyards.

Wool.

Receipts are steadily increasing. The shipments reported the past week were as follows, by the Canadian Pacific Railway via Victoria, B. C.: To Lawrence, Mass., 31,645 lbs, New York 170,307 lbs, and Boston 161,113 lbs. The market shows more life, with buyers taking hold more freely as assortments come to hand. Buyers, as yet, are very particular and only take the more desirable clips, those clean, lively, and well conditioned, with the grade running from medium to fine. Defective clips are taken

more by scourers than by shippers in the grease. It is claimed that a slightly higher range of values is paid by agents in the more favored wool-growing section than is bid in this market. It looks as if the buyers are trying to keep values down as much as possible.

Miscellaneous.

Comb honey is in free receipt, with prices still drooping. Crop prospects continue favorable.

The receipts of beans are free, while the demand is slow, causing a weaker tone to prevail.

Hops have a firm, stronger tone. The stock on this coast is very light, barely reaching 2000 bales, while there is a steady outward movement and an increasing home consumption. Australasia is drawing quite freely from us, as are other countries in the Pacific. It now looks as if the supply will be about, if not entirely, exhausted before the next season opens.

Beeswax is now selling at 18 to 20 cts, a pound. From the *Commercial News* of April 23, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	193,396	271,399
On the way to neighboring ports.....	37,549	140,288
In port, disengaged.....	21,018	46,329
In port, engaged for wheat....	34,239	11,149

Totals.....286,202 369,165

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to April 23, the following are the exports from this port:

	1889.	1888.
Wheat, cts.....	11,194,138	7,896,992
Flour, bbls.....	665,119	649,061
Barley, cts.....	1,260,333	645,134

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, April 24, 1889.

BEANS AND PEAS.	ONIONS.
Bayo, cts....	2 30 @ 2 50
Butter.....	2 50 @ 3 00
Peas.....	1 75 @ 2 00
Red.....	2 30 @ 2 45
Pink.....	2 20 @ 2 40
Large White ..	— @ —
Small White ..	1 75 @ 2 00
Lima.....	4 40 @ 4 65
Fla. Peas.....	2 00 @ 2 10
do green.....	3 00 @ 4 00
do Niles.....	2 00 @ 2 10
BROOM CORN.	
South'n.....	70 @ 85 00
Northern.....	65 @ 75 00

CHICKEN.	POTATOES.
California.....	6 @ 7
German.....	7 @ 7 1/2

DAIRY PRODUCE, ETC.

BUTTER.	POULTRY AND GAME.
Cal. Poor to fair, 10 @ 14	Hens, doz....
do good to choice 14 @ 18	Roosters, old....
do Fancy brands 17 @ 18	do young.....
do picked.....	Broilers.....
Eastern in tubs, 11 @ 12	Ducks, tame....
do in rolls.....	Geese, pair.....

EGGS.

EGGS.	EGG FOOD.
Cal. new, choice, 8 @ 9	Manhattan, lb. 12 @ —
do old.....	—
do fair to good.....	—
new.....	—

EGGS.

EGGS.	EGG FOOD.
Cal. ranch, doz. 18 @ 19	do. store.....
do. store.....	—
do. do to choice 14 @ 18	—
do. do to choice 14 @ 18	—
do. do to choice 14 @ 18	—

EGGS.

EGGS.	EGG FOOD.
Cal. ranch, doz. 18 @ 19	do. store.....
do. store.....	—
do. do to choice 14 @ 18	—
do. do to choice 14 @ 18	—
do. do to choice 14 @ 18	—

California Products at Chicago.

CHICAGO, April 24.—California Dried Fruits—Apricots are reported as moving a little more freely, with prices as heretofore. Peaches remain dull and flat. Prunes are pretty well closed out; they meet with a light demand. Raisins are quiet; this is customary at this season of the year.

Apricots—Evaporated, bleached, bxs, $\frac{1}{2}$ lb, 10¢; do, sun-dried, according to quality, 6¢@8¢; do, sun-dried, in sacks, 6¢@8¢. Peaches—Evaporated, bleached, unpeeled, boxes, $8\frac{1}{2}$ ¢@9¢; do, sun-dried, bleached, unpeeled, sks, $6\frac{1}{2}$ ¢@7¢; do, sun-dried, unbleached, unpeeled, sks, $5\frac{1}{2}$ ¢@6¢; do, sun-dried, peeled, bxs, 10¢@12¢; do, do, sks, 10¢@10¢; do, evaporated, peeled, bxs, 12¢@13¢. Nectarines—White, evaporated, bleached, bxs, 7¢@8¢; do, sun-dried, bleached, sks, 6¢@7¢; do, red, evaporated, bleached, bxs, 6¢@6¢; do, red, sun-dried, bichd, sks, 4¢@5¢. Plums—New, pitted, sacks, $6\frac{1}{2}$ ¢@7¢; new, unpitted, sacks, 4¢@7¢. Prunes, according to size, in sks, and dry, 5¢@8¢; do, do, damp, 3¢@4¢; do, Silver, 10¢@12¢; do, Hungarian, sks, 3¢@5¢. Raisins—Loose Muscates, new, $\frac{1}{2}$ box, $\$1.15$ @ 1.25 ; do, London layers, new, $\$1.65$ @ 2.25 .

Oranges show no material change. California oranges rule rather easy, being in quite liberal supply and buyers not taking hold to any extent. Floridas are at the same time firm and scarce, and both Messinas and Valencias were quoted in fair demand and a shade higher. California Riverside, $\frac{1}{2}$ box, $\$3$ @ 3.25 ; do, undesirable sizes, $\$2.50$ @ 2.75 ; California San Gabriel, $\$2$ @ 2.25 ; California Duarte, $\frac{1}{2}$ box, $\$2.25$ @ 2.75 ; California Los Angeles, $\$1.75$ @ 2.25 ; do, bad order, heated, $\$1$ @ 1.50 ; California Navels, $\frac{1}{2}$ box, $\$2.75$ @ 3.50 ; do, Navels (Washingtons), $\$4$ @ 4.50 .

No changes were visible in the bean market, there being only a light demand, and rather slow sale of beans previously complained of still continues, with prices ruling easy but no lower, the supply being fair. California lima beans, $\frac{1}{2}$ lb, 5¢.

In hops a quiet feeling prevails; at the same time choice grades are meeting with moderate inquiry with prices as quoted: Washington Territory best, 23¢@24¢ $\frac{1}{2}$ lb; good to prime, Pacific Coast, 18¢@22¢.

Butter Colored with Wells. Richardson & Co.'s Improved Butter Color Cannot be Taxed.

The Chemist of the Internal Revenue Department Washington, D. C., finds no foreign fat, either animal or vegetable, in butter colored with Wells, Richardson & Co.'s Improved Butter Color, and the Commissioner decides it cannot be taxed.

TREASURY DEPARTMENT.

OFFICE OF INTERNAL REVENUE, }
Washington, D. C., Feb. 28, 1889. }

Messrs. Wells, Richardson & Co. have submitted a sample of butter colored with their Improved Butter Color, and it has been submitted to a very careful analysis, resulting in the discovery of annatto, but not in the finding of any foreign fat, either animal or vegetable. The simple fact having been determined that the sample submitted by Messrs. Wells, Richardson & Co. is butter, it is of course not liable to tax. Respectfully yours,
[Signed] E. HENDERSON, Acting Commissioner.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE.	Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.			
	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.				
April 17-23.																																				
Wednesday.....	.04	60	Nw	Fr.	.00	54	N	Cl.	.00	68	N	Cl.	.00	66	Nw	Fr.	.00	64	W	Fr.	.00	72	Nw	Cl.	.00	76	Nw	Cl.	.00	84	W	Cl.	.00	68	W	Cl.
Thursday.....	.01	64	SW	Cl.	.00	58	Nw	Cl.	.00	74	Nw	Cl.	.00	72	Nw	Cl.	.00	63	W	Cl.	.00	76	Om	Cl.	.00	62	SW	Cl.	.00	76	W	Cl.	.00	64	S	Cl.
Friday.....	.00	70	Nw	Cl.	.00	56	W	Fr.	.00	78	S	Cl.	.00	76	SW	Cl.	.00	58	SW	Cl.	.00	82	W	Cl.	.00	68	SW	Cl.	.00	64	SW	Cl.	.00	64	SW	Fr.
Saturday.....	.08	54	S	Cy.	.04	62	S	Cy.	.T	68	S	Ry.	.T	58	SW	Cy.	.T	63	SW	Cy.	.00	82	W	Cl.	.00	72	S	Cl.	.00	70	W	Cl.	.00	64	W	Cl.
Sunday.....	.38	40	SE	Cy.	.02	58	SW	Cy.	.T	74	S	Fr.	.00	76	SW	Cl.	.T	65	W	Fr.	.00	80	W	Cl.	.00	74	SW	Cl.	.00	66	W	Fr.	.00	68	Nw	Cl.
Monday.....	.78	62	SW	Fr.	.00	54	N	Fr.	.00	78	N	Cl.	.00	74	Nw	Fr.	.00	69	SW	Cl.	.00	80	W	Cl.	.00	80	SW	Cl.	.00	82	W	Cl.	.00	74	W	Cl.
Tuesday.....	.00	72	NE	Fr.	.00	58	Nw	Cy.	.00	78	S	Cy.	.00	78	Nw	Cy.	.00	64	SW	Cy.	.00	84	Nw	Cy.	.00	84	Om	Cl.	.00	80	W	Cl.	.00	74	SW	Fr.
Total.....	1.29				.06				T				.T				T				.00				.00				.00				.00			

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; Cm., calm; — indicates too small to measure. Temperature, wind and weather at 12:00 m. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 m.

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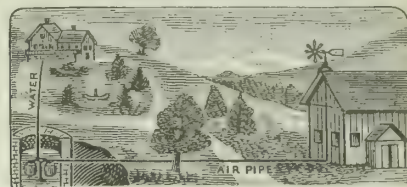


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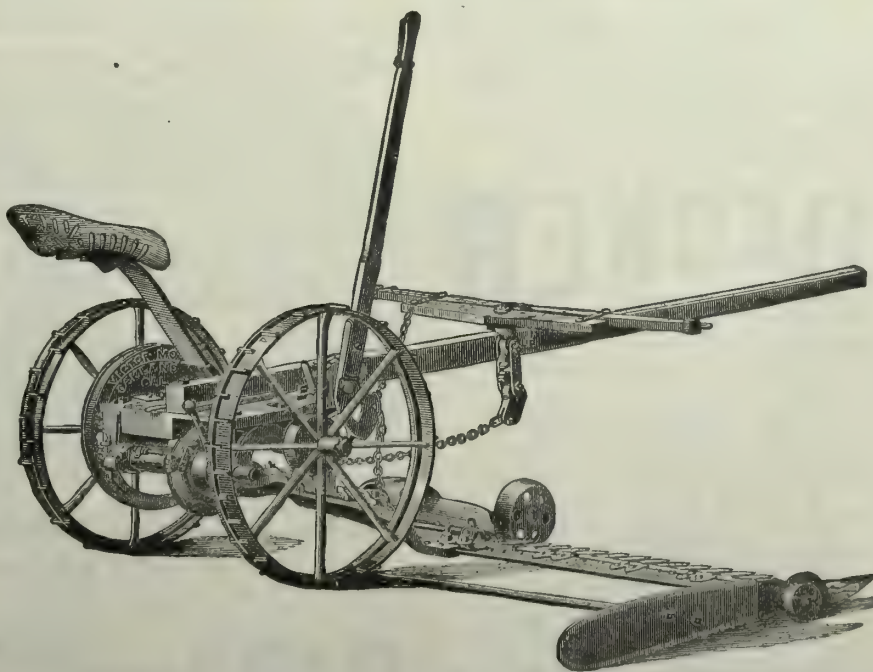
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Self-Mending Insects and Snakes.

Much has been said and written in regard to what are sometimes called "self-mending insects and snakes." The *Scientific American* of Sept. 24, 1887, contains a communication from Oliver White, secretary of the Peoria, Ill., Scientific Association, in which he relates of breaking one of these reptiles into pieces from one to two inches long, from the vent to the tip of his tail—two-thirds of the whole length of the way—then placing a cage over him. On returning to the place 24 hours after, the snake was there, sound and whole, in full length.

Another and later correspondent of the same paper, referring to the above, says: "A similar operation is performed by the insect known as the earwig. One resting on a board was cut in two with a knife, when the head half crawled away about a foot, and, after making a circuit, came back to the tail half, butted against it, and was again united with it, when the severed insect became whole—a perfect, living, moving object. Can you or any of your readers, Mr. Editor, give me a scientific reason for, or an explanation of, this most marvelous operation of the self-mending snake and the earwig? Are there any other insects, reptiles or living objects that do the same?"

To the above still a third correspondent of the *Scientific American*, G. A. Stockwell, M. D., F. L. S., of Port Huron, Mich., in the issue of Oct. 29, 1887, says: "In the 'glass snake' and other low orders of life repair is usually by primary adhesion, by scabbing, or more rarely immediate union; or it may, in a sense, be a medium between the two former. Creatures with three-chambered hearts and sluggish (cold) circulation retain vitality in severed tissue much longer than those possessed of a four-chambered heart and quick, warm circulation; and to even greater extent is this true of white-blooded insects, without complete circulatory apparatus. Here reparative material is poured out, undergoing changes similar to those in primary adhesion; and the wound cicatrizes rapidly beneath the scab formed by the highly plastic serum of the blood effused on the surface, and which coagulates with extreme rapidity and firmness in the lower orders of creatures. The scab affords support, the embryo cells with the plastic lymph being the medium of repair. The process is identical in all grades of life, and in all tissues, whether bone, muscle, integument, tendon, capillaries or nerves, and depends solely upon the blood supply and the capability of the nervous system to provide this nourishment. Severed fingers have successfully been reunited to the hand in the human subject; bits of muscle, integument, or scalp grafted; teeth transplanted; and even the spurs made to grow in the comb of the same barnyard cock. The processes are precisely the same as in the reunion of a severed portion in reptiles or insects when the latter are led by instinct to approximate the separated portions of their economies, and to await the exudation and 'sealing' that will insure permanent union. The exudation about the wound gives support, exactly as the 'provisional callous' forms a false splint holding the bone in place until reparative processes shall reunite the fractured surfaces. Had the *ophiosaurus* of Mr. White been reunited without exhibiting traces of the injury, we might be justified in deeming it phenomenal, or in believing the gentleman had been unconsciously deceived; but under the circumstance, he narrates nothing but what is an every-day physiological occurrence, curious only as the severed digit, when replaced and healed, is curious! But withal his observation is valuable, since it adds one more link to the chain that must eventually strangle superstition and silence 'doubting Thomases' possessed of narrow minds, and race egoism, that can conceive of nothing less than man as an object of Nature's fostering care."

One of these curious reptiles—the glass snake—is said to have been seen, a few years since, by a party of ladies near Pescadero beach, in this State. As the party passed the reptile, one of the ladies—Mrs. Swanton, who resides at Pescadero—struck it lightly with a stick, when it immediately separated into several pieces. Soon afterward, in returning by the same path, what they supposed to be the same snake, appeared united and in quite a lively condition. At least, a snake similar to the first seen, was observed lying in identically the same place and no portions of the reptile which had been separated before their eyes were anywhere to be seen.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

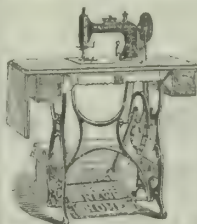
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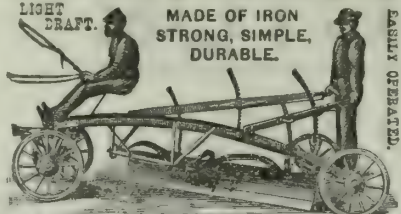
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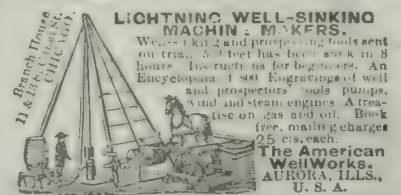
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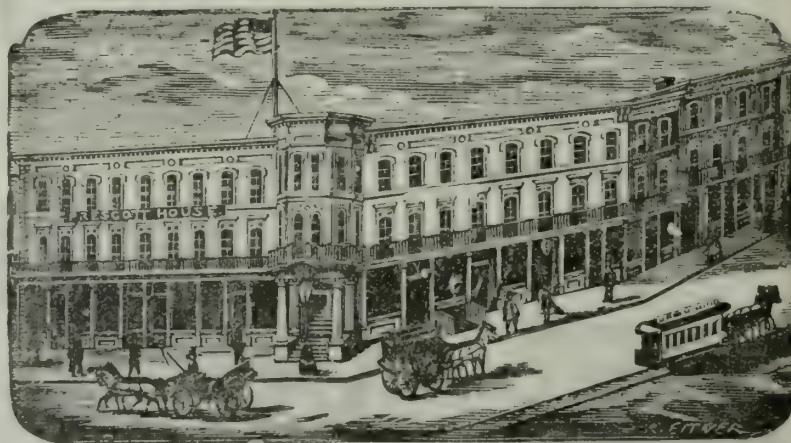
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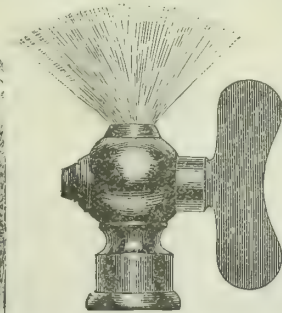
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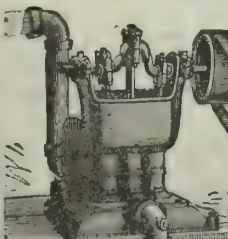
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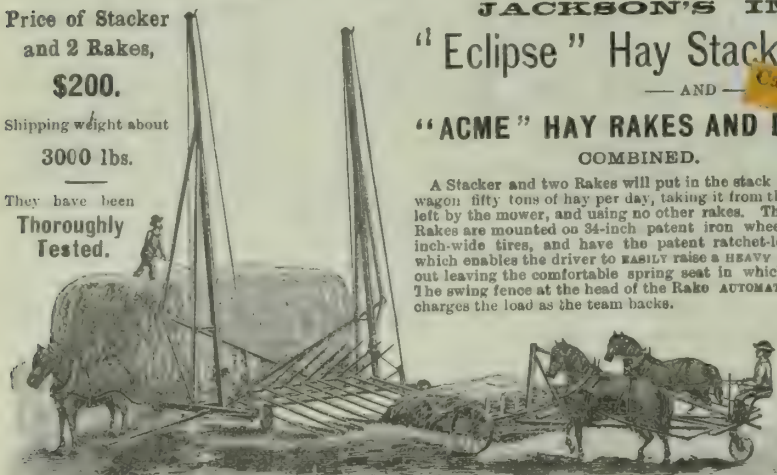
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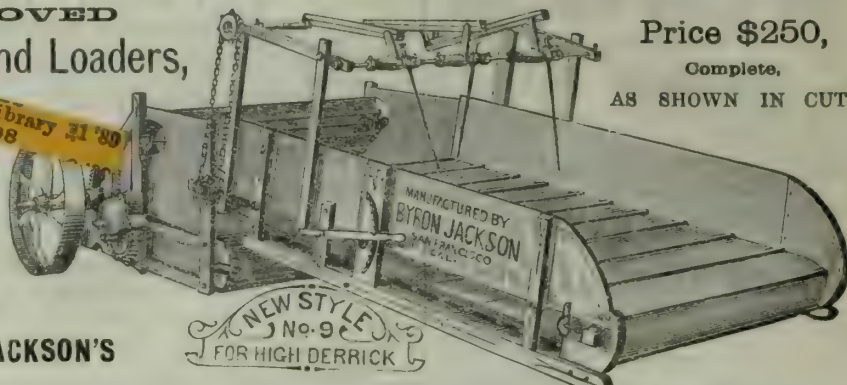


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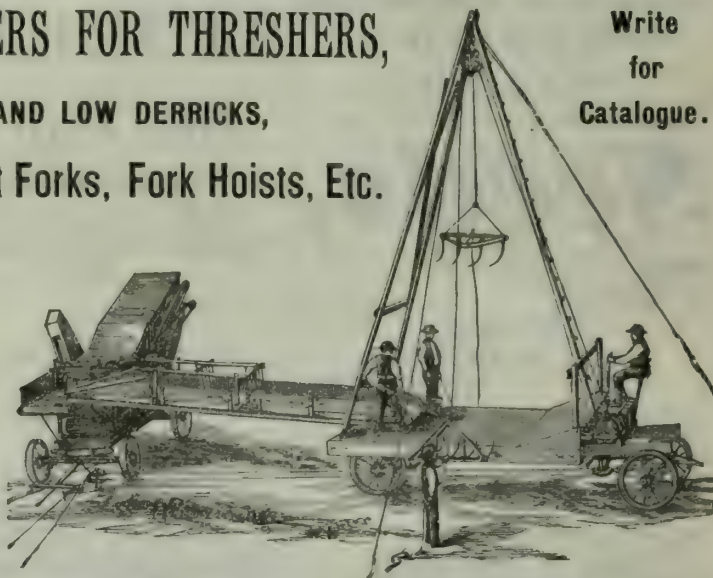
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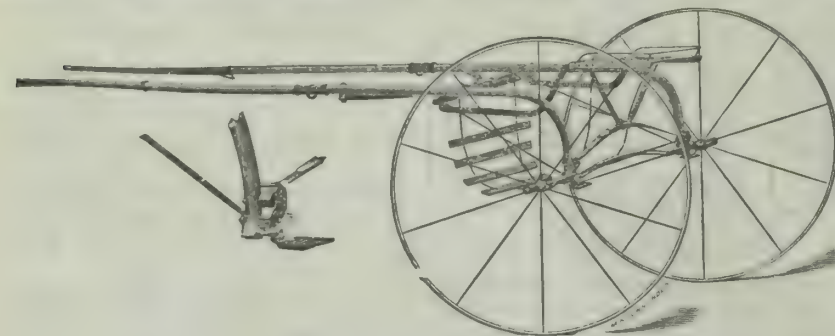
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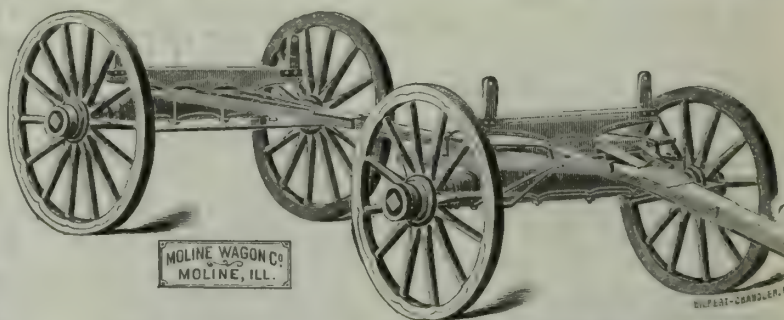
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TWENTY-FOUR PAGE EDITION.

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Dutch Belted Cattle.

For fear some of our readers may think there is a monotony in the outline and color markings in the live-stock portraits which we give from time to time in the Rural, we select this time a portraiture which certainly will have the charm of novelty to most of our readers. And yet the cattle with the characteristic markings shown in the engraving are not new in their native land, although they are new in live-stock circles in this country. H. B. Richards of Avona Farm, Easton, Pa., is making a specialty of the breed, and is advocating and developing their excellence, as is the American style with imported breeds. He has a herd of between 30 and 40 animals of both sexes and during the last two years has captured nearly 100 premiums with his herd at different fairs. The engraving shows a group of these premium animals, all of which are properly registered in records of the Dutch Belted Association.

The Dutch Belted cattle are natives of Holland, but are not to be confounded with the mottled or piebald cattle now imported from that country named Holstein-Friesians, but are a distinct breed or family, and are so recognized by the Holstein and Dutch Belted Associations. Their breeding dates back to beyond the seventeenth century, when the cattle interests in Holland were in the most thrifty condition, and this type and color being established by scientific breeding—decidedly the highest attainment ever reached in the science of breeding. The historian Motley well said: "These are the most wonderful cattle of the world." These cattle are solely controlled by the nobility of Holland, and they are to the present time keeping them pure, but are not inclined to sell or part with them. Their form is usually very fine, and they are wonderfully productive as milkers.

In color they are black, with a continuous white belt around their body, the white being pure white, the black jet making a beautiful and imposing contrast. This belt is always reproduced, and is so perfectly fixed that it will crop out in their grades for many generations. The potency of this feature is the more striking when it is stated that by crossing with other blood there are produced brown belted, red belted, gray belted, or any foundation color and still retain the belt.

Their form is a strong, characterized type of

the bodily construction known as the milk shape. Thin necks, small horns, straight backs, wide breast and hips, switch long and thin, udder square and well placed, eyes prominent and calm, skin thin, soft and mellow, with silky hair. In size they are above the average mature cows, ranging from 800 to 1200; bulls reaching 1600 to 2000.

For beef purposes the cows fatten readily when past the milking age; oxen reach a large and heavy weight, making beef of an excellent quality. They possess wonderfully strong and

FREIGHT BY CANAL.—Ex-Governor Alger of Michigan, prominent as a late Presidential candidate, a self-made man, who is a specialist in lumber, finding that the Michigan and Wisconsin supply would last only about eight years if the present rate of destruction goes on, has been looking over the country to find a new forest. This is quite a serious matter when we reflect that in Maine, the "Pine-tree State," but few pines are found, the entire output being confined almost wholly to spruce, which also is getting scarce. The ex-Governor thinks Wash-

Varied Farming.

While specialists undoubtedly know more of their particular lines than those who attempt to do many things, and often succeed better unless there are too many competitors, yet what applies to city life does not always prove true in the country. If a man concentrates his attention upon one crop, one fruit, he may work up a greater reputation than neighbors who have a variety, and he may get more occasionally for his crop or fruit than his neighbors,

who produce less, but he has to run risks. Not every year is propitious for one crop or fruit. This year, it may be, the yield is abundant, but the railroads and middlemen and other factors bring down the price; another year parasites or unsatisfactory meteorological conditions reduce the yield; another and a bad has started everybody into his chosen field. The farmer who does not rely upon one thing, but has a variety and can afford to lose the entire yield of certain things because the variety of opposing crops, if we may use the term, will surely be profitable, is the happiest man. Another advantage is that he can so arrange matters as to distribute his work throughout the year and not be rushed for a few weeks, while he is in enforced idleness at other seasons. The man with a specialty on a farm, who expects to get his living therefrom, gets money only



GROUP OF DUTCH BELTED CATTLE, NOW BEING INTRODUCED IN THIS COUNTRY.

vigorous constitutions and are very hardy. They are particularly noted for docility and intelligence, displaying a wonderful knowledge of their surroundings, yielding very readily to kind treatment, but are resentful to harsh or rough treatment. The bulls, of whatever age, rarely become ill-tempered. The cows, very tame and social, love to congregate close together, and it is often difficult to tell which is mistress of the herd.

The Dutch Belted Cattle Association was organized in 1885, and Mr. Richards, the owner of the cattle shown on this page, is secretary. The first volume of the herd-book was published in 1886. It contains the records of 46 bulls and 177 cows and heifers. The association is made up of enterprising and intelligent men, in whose hands this choice and unique breed will be kept up to the full standard of excellence.

It is stated that there are 1000 wooden buildings in course of construction in the new town of Guthrie, Oklahoma.

ington Territory pine superior to any in the country. He has gone into figures with leading railroad men and finds it impossible, he says, to carry the logs by rail at a living price without taking off all the profit. He has great hopes of the contemplated Nicaraguan canal, which can let the logs go East by water at rates which will not make the purchaser pay exorbitant prices and at a time when the Eastern supply will be nearly exhausted. This canal will do much toward settling the freight problem on the Pacific Coast, and Californians should be interested in seeing the project get under way at once.

VINE INSPECTOR COMING.—Mention was made in our last issue of the Secretary of Agriculture promising to send an expert to this State to look into the mysterious vine disease. A telegram from Washington, April 27th, says that Newton B. Pierce, a special agent of the Department of Agriculture, is to set out in a few days for the San Gabriel valley, where he will spend some time in the investigation.

at one season, which often brings him to the money-lender and his usurious rates of interest, but the varied-crops man can get money at all seasons, and having the cash can turn banker and loan to other farmers or get the benefit of discounts. Even when he does not have the cash he can take a basket of eggs, some rolls of butter or something else and easily exchange them for the necessary articles of home use. In this land of freedom we abhor slavery; there are none so free as those who can raise what they want and sell what others want; none so fettered as those who do not raise all they want and have not the money at all seasons to buy the necessary articles.

THE Paris Exposition will be formally opened on May 6th, but everything is backward, and it will probably be six weeks or two months before the exhibits will begin to assume proper shape.

DEER are being killed for their hides in large numbers on the Hyampom side of the South Fork mountains, in Tehama county.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Arizona Notes.

EDITORS PRESS:—The Rural comes to hand as regular as the week rolls round, and is the same welcome visitor as when in Vacaville, years of long ago. To me, in working here among the apricot trees and the Muscat vines, and sitting in the shades of the evening, conversing, as it were, with the rural folks of California through the columns of the Rural, I scarcely realize that I am so far away.

The season so far has been cool and rainy for Southern Arizona. The desert is a flower garden, and grass abounds everywhere. Some of the beehives that were brought into the valley from the mountain ranges are here still, but most have gone to the Los Angeles market weeks ago. Our alfalfa feeding has not given the best of satisfaction to the range beef-growers who came in here last fall with their hungry kine. The range cattlemen expected too much. They did not consider that so great a change all at once was not genial. Change of feed, of water, of climate, of freedom, of scenery—yes, of scenery, too, for a bullock which scarcely ever saw a man or a fence to find himself in sight of something or somebody all the time. It took some time to quiet his nerve to the situation.

Then, too, to get the run of these barb-wire fences. On first introduction, it took some time for Mr. Bronco-Bovine to find out which side of these fences he belonged on, or which one of the broncos he was, all of which was not at all conducive to the fattening qualities of our pastures.

I predict a glut in the hay market of Salt River valley the coming season. The range is likely to be good outside, and less hay will be demanded. There is more hay here than ever, and beef will go directly to the market from the ranges. However, the sooner the stagnation comes, the better for our valley, as then our farmers will take hold of the dairy business, which will pay far better than feeding range beef.

Salt river has been past fording a great part of this year, and several have been drowned in its rapid, whirling waters. For seven miles south of Tempe, indications are that irrigation in the future will be but little needed, as the water is now nearing the surface. However, this is Arizona, you know, and yesterday I saw a rancher flooding his orchard. Water can be reached anywhere on his farm in three feet. These were mostly new trees, just set out; for somehow the old orchard has not done very well.

GEO. KAY MILLER.

About Los Angeles.

EDITORS PRESS:—Messrs. Baldwin & Hastings have inaugurated an important enterprise at Florence, a few miles south of Los Angeles. They have planted 200 acres to a large variety of imported potatoes, with the intention of supplying the California market with good seed. The kinds so far planted are the following: New Early White Prize, Early Puritan, Chas. Downing, The Potentate, Polaris, Early Maine, Conqueror, Mammoth Pearl, Empire State, Rose's Beauty of Beauties, Early Sunrise, White Star, White Elephant, Early Mayflower, Early Ohio, Magnum Bonum, Mammoth Profligo, Rural Blush, Queen of the Valley, Beauty of Hebron, State of Maine, Prince Edward's Island Rose, Clark's No. 1.

Of Rose's Beauty of Beauties it is said 1028½ bushels to the acre were raised on the Rural New Yorker test-grounds, which shows that this variety is a prolific bearer. The Early Sunrise is fit to dig in eight weeks from planting, being mealy and good at that time.

Andrew T. Garey is one of the leading nurserymen of Los Angeles Co., and at his branch yard on South Main St., near Second St., handles a deal of stock in the ornamental line. Mr. Garey reports the past season's business very gratifying, and indulges in bright hopes for the future of Southern California. His little catalogue of ornamental trees and shrubs, fruit trees, flowering plants, roses, etc., is well arranged and shows that the nursery keeps a good stock on hand.

Geo. S. Weinshank has recently purchased the interest of his former partner in the business conducted at the corner of Winston and Wall streets, Los Angeles, where he grows trees, flowers, bulbs, seeds, ornamental plants, etc., in great variety.

L. J. Stengel, at his nursery and floral gardens in East Los Angeles, is constantly enlarging his output, and shows about 25 acres thickly planted to choice fruit trees, flowering plants and beautiful nursery and floral stock of all kinds. Mr. Stengel is an assiduous worker and has accomplished wonders in his business during the past five years.

Milton Thomas, at his nursery in the southern part of Los Angeles city, reports a fine business during the past season. A walk through his well-kept premises may give one a fair idea of the possibilities for fruit and flower culture in this bright and sunny land. The senses are regaled with sweet odors, and the palate may be pleased with juicy fruit.

H. G. P.

From Sierra Valley.

EDITORS PRESS:—Those who have felt desirous of seeking a milder climate than our high altitude affords, might be persuaded to remain here if all our winters were as mild as the last. The balminess of the spring seemed to have entered into the very heart of things. The farmers were scarcely through marketing their last year's grain crops before those on the side-hill ranches were plowing. In January the buttercups scattered their gold over the hillsides, and other flowers followed, each in its turn, a month or more earlier than usual. At the time when we frequently find ourselves deeply buried under snowdrifts, the swelling buds told that Dame Nature had decided to dress every tree and shrub in their new spring suits, and that, like the girl in the fable, "green they should be." The farmer, though enjoying the warmth of the sunshine, and very busy with his spring work, was growing apprehensive of a failure of crops, as the winter months had brought us almost no winter's storms, but when hope deferred was making their hearts sick, there came

"A gentle rain, softly downpouring,
In royal bounty all the vale o'erflowing,
Bearing rich treasures in its liquid flood,
An angel of fruitfulness, a messenger of God;
Swelling the secret fountains, hidden among the hills,
Replenishing the lakes, trickling down the rills,
Foretelling of rich harvests, harbinger of joy,
We welcomed the heaven-sent blessing, good without alloy."

Since then we have had several other rains, each increasing the assurance of a harvest. The storms coming so late, the hay crop in the greater part of our valley will probably be poor, but a much greater acreage of grain is put in than heretofore, as it seems to be a rule in our high mountain-valley that if winter does not bring enough storm to secure a good crop of hay, we are usually blessed with spring showers sufficient to give us a good grain crop.

The unclaimed plains where sheep were formerly kept, and the young stock belonging to the dairy farmer grazed at leisure, are now almost every acre inclosed, and much of the land is under cultivation. It is probable that few parts of our State have a healthier outlook, though this valley, like many other portions of our country, bids fair to be overrun with rabbits, so that we find ourselves wishing for some remedy for them as successful as the rabbit-drives the Rural Press has so well pictured and described.

M. P. A.

Beckwith, April 23, 1889.

Santa Barbara County Notes.

EDITORS PRESS:—Those who attended the Fruit-Growers' Convention report a successful meeting and a most enjoyable time, thanks to the hospitality and thoughtfulness of the citizens of National City and vicinity. Among the Santa Barbara visitors and members present were Mr. and Mrs. Ellwood Cooper, Prof. H. C. Ford, president of our county Horticultural Society, Mrs. Ashley, Mr. and Mrs. Russell Heath, Mr. and Mrs. P. C. Higgins, Mr. and Mrs. A. A. Garland and Messrs. E. Harper, S. Bond, F. H. Lancaster and O. N. Cadwell.

Fruit trees are backward in coming into leaf and blossom this season. Apples and pears promise a good crop, but have only begun to bloom. Peaches, plums and prunes are not far enough along to tell what they will produce. Walnuts are in the same condition and seem to come out "spotted." Oranges and olives are blooming very full. The present hot weather will doubtless have a good effect on all fruits.

Haying is now in active progress. The land is being rapidly prepared for beans, corn and other summer crops.

Noticing in the Rural Press of last week an item concerning a large grapevine in Ventura county, brings to mind the fact that there is in Carpinteria valley a grapevine, the property of Mr. Jacob Wilson, that is upward of six feet in circumference at the surface of the ground and covers over an eighth of an acre. This vine produces many tons of grapes annually, and as it is trained on an arbor at a height of seven or eight feet from the ground, is the scene of many picnics by pleasure-seekers.

The town of Summerland, the Mecca of the spiritualists, is growing, and bids fair to become a good-sized town.

Santa Barbara now has several brick business-houses in course of construction, and is growing slowly but substantially.

L. B. CADWELL.

Carpinteria, April 20, 1889.

SHEEP AND WOOL.

Wool Facts and Figures—No. 3.

(Written for the Rural Press by J. R. F.)

Owing to the opposition of the "Mother Country," sheep husbandry in America, or as then called the Colonies, was uphill work. It was not until after the Revolutionary war that the industry gained that recognition its importance deserved.

History states that the first sheep brought into the Colonies was in the year 1609 by a settler in Jamestown, Virginia. These increased in numbers until in 1649 they numbered 3000.

The first importation of sheep into Massachusetts was in the year 1633; in 1840 the number had increased to 3000 head. The first mentioned importation of sheep into Delaware was in the year 1663, when a Swedish colony brought over from the old country 80 head. The breed of sheep is unknown, but owing to interbreeding and poor attention both the sheep and wool were poor. The Colonies, by various means within their power, not only tried to protect the industry, but also enlarge it. This was particularly the case with Massachusetts and Virginia. The latter in 1662, by statute, prohibited the exporting of wool and offered five pounds of tobacco (the currency of the Colony) for every yard of woolen cloth made in the Colony. This was supplemented by the General Assembly of Virginia establishing looms and weavers in each county within her limits. Massachusetts possessed laws encouraging the raising of sheep, and in 1656 enacted another law requiring each family to spin three pounds of wool, cotton or flax per week for 30 weeks. It was in this year, history states, that the first weaver was induced to settle at Lowell by the gift of 30 acres of land and special privileges. There can be no doubt but the wool industry was largely increased by the bad feeling entertained against England. So far did this extend that just prior to the Revolution it was considered disloyal to the Colonies to wear English goods, and consequently only home-spun goods were worn. This feeling was well illustrated "by the graduating class in 1770 at Harvard College appearing in black cloth of New England manufacture."

After the Revolution the wool industry in the United States is said to have received its greatest impetus from the fact that Americans wished to more fully outdo from England, but owing to the jealousy with which the fine breeds of sheep were guarded abroad, it was a hard task to import the better grades. A society was formed in South Carolina to promote agriculture, and it was from them that the first concerted action was made looking to the improvement of the sheep. The society in 1785 offered a medal for the first importation of a flock of merino sheep, but it was not until 1793 that the first merino sheep were imported into any of the States. But these sheep, three in number, were negligently killed. The way this was done was as follows: Hon. Wm. Foster, U. S. Minister to Spain, smuggled from Spain the sheep and sent them to a friend at Boston, who, not knowing their value (worth \$1500 each), killed them and thanked Mr. Foster for the gift of such excellent mutton sheep. History states that the first full-blooded Spanish merino ram imported into this country was in 1801, which became the sire of many fine-graded flocks in Delaware. The first importation of any moment of merino sheep was made by Col. David Humphreys, then U. S. Minister to Spain. This importation consisted of 20 rams and 71 ewes. Col. Humphreys was not only a statesman, but a poet and a great lover of his native country. This is well illustrated by the following to the *National Live-Stock Journal*, published about two years ago, which is also good reading in this centennial year of Washington's first inauguration:

"First, let the loom each liberal thought engage,
Its labors growing with the growing age.
Then true utility with taste allied,
Shall make our home-spun goods our natives pride.
See wool, the boast of Britain's proudest hour,
Is still the basis of her wealth and power;
From her the nations wait their wintry robe,
Round half this idle, poor, dependent globe.
Shall we, who foiled her sons in fields of fame,
In peace add nobler triumphs to her name?
Shall we, who dared assert the rights of man,
Become the vassals of her wiser plan?
Then rous'd from lethargies, up, men, increase
In every vale, on every hill, the fleece!
And see the fold, with thousands teeming flocks,
With flocks the bleating vales and echoing hills."

The first French full-blooded merino rams were imported into this country by R. R. Livingston, at that time U. S. Minister to France. An authority on the subject says that up to 1810 the number of merino sheep imported into the United States aggregated about 5000 head, and it was these that formed the groundwork on which stands America's improved stock of the present day. Of necessity to keep the breed to a high standard, constant importations of full-blooded merino rams had to be made from Europe. In 1811 the Merino Society of the Middle States gave an exhibition at which the following breeds were represented: Irish, Tunisian or Barbary, New Leicester, Black well or Dishley and Southdowns.

It is a fallacious opinion doubtless formed by erroneous deductions, that in the United States fine wools are not grown, for the contrary is the fact. In this country as fine, if not finer, wools are now grown than in any other country of the world. This opinion is grounded on the fact that England surpasses the United States in fine broadcloths and cassimeres ever since the almost prohibitory tariff for such wools from which these cloths are made went into effect. In the manufacture, particularly, of fine broadcloth, the American wools are unsuitable for the short smooth nap required for the cloth, American wools of this class being too fine and long of staple. In all goods where soft and fleecy finish is required, manufacturers claim that American wools excel those of the rest of the world. Probably no better proof of the fineness of the American wools can be had than the awards at the World's Exhibition held in London in 1851, and again at the International Exhibition held at Hamburg in 1863. At these two exhibitions, where all the finest flocks of

Europe were represented, two first-class prizes were awarded to merino sheep from Vermont.

Gradually, but surely, sheep husbandry went westward, steadily driving back the cattle industry. The rapid increase in population in the old settled States and improved means of transportation by networks of railways caused land to become too valuable for pasture. This encroachment of farming land is steadily going on, and soon the days of large flocks will be numbered with the past, for each farmer will only keep sheep in sufficient numbers to be properly handled. It has been demonstrated by experience that sheep instead of being an injury are of the most vital importance where farming on scientific principles is carried on, for they enrich the soil. The writer has seen on farms having a small number of sheep, a movable kind of fence, made so as to confine the sheep within a given space until the feed is well eaten off. This fence is made of a piece of timber from four to six inches square, and from 20 to 30 feet long. In the timber, alternate holes, a few inches apart, are bored, and a round piece of wood about five feet long inserted one-half of its length. The ends of the wood or sticks form legs, and cause the fence to stand up in such a way that the sheep can neither get over nor under it. This can be easily moved from one part of a field to another. If any of the patrons of the Rural Press desire, the writer will send them a diagram and a better description how to make the fence. It is only a question of a short time, if it is not already, when the large flocks in this State must give place to the farm flocks, and then all means for utilizing feed, and also occupying as small space as possible on the farm, must be adopted, and then the movable fence will come to the front as a prime promoter for this desirable end.

SWINE YARD.

Hogs and Cured Meat.

EDITORS PRESS:—Though the recent articles in the Rural on "The Swine Industry" no doubt covered well the ground for which they were written, yet as the editors welcome bits of farm experience to their columns, more on the same subject may not be amiss. Having spent much of my early life in the West, where the swine industry was one of the chief sources of wealth, and where large fortunes were often made by the pork-packers, who sent flatboats of pork down the Ohio and Mississippi rivers to New Orleans, my eyes have naturally been open to this branch of farming. In the valleys of the Sierra Nevada mountains, where the people are largely engaged in dairying, the swine industry must necessarily receive some attention, though judging from what I have seen, the farmer experiences more difficulty in raising hogs than any other kind of live-stock. More attention is given to their comfort than was formerly thought necessary, if we can judge by the number of comfortable houses different farmers have built for them in the last few years. The idea that pigs need nothing more than an open pen and a bed of straw is fast giving way to more careful consideration of their comfort. A warm, dry house, plenty of pure water and good food given at regular intervals, seem among the necessities of a healthful existence for them. Farmers in these mountain valleys do not intend to be behind those in other portions of California in securing fine stock. Some attention has been given to getting Berkshire and Chester-White, and perhaps other varieties of fine hogs. The experience of some of our farmers is that they hardly succeed as well with the former as with the latter. The Berkshire having a thin covering of hair, seem particularly sensitive to the cold of winter.

One may gather some amusing bits from different persons' experience in the raising of pigs as well as other things. One farmer purposely kept his hogs from becoming fat, because he and his family were not fond of fat pork. If a pig is kept well fed until six or eight months old, so large a portion of the food goes to keep it in a growing condition that it will not be overfat for table use, though some farmers by extra care have secured large results in weight; the best I have known being a pig at eight months, fed exclusively upon milk, has been made to weigh 280 pounds. The dairies where butter is made can, of course, attain to better weights in pork than can be reached in those where cheese is made. Among the intelligent talks we have had in our Grange was one I remember some years ago in regard to the best profits to be secured from pork, it being clearly shown that the prices being as they then were, there was a good margin of profit in baconing the meat above what there would have been in selling the fresh pork. Prices of both fresh pork and bacon have decreased in the last few years, but the ratio has probably remained about the same. We usually consider that pork in being salted and smoked loses about one-third in weight, but though the prices of hams and bacon are low, farmers may secure for themselves a reputation for the extra quality of the meat which they put upon the market, which will give them an advance upon ordinary prices.

In article No. 2 on "The Swine Industry" in a recent number of the Rural, we are told that country-cured hams and bacon as a rule are discriminated against by the trade. Though this is no doubt true, it certainly is not as it should be. The hogs which have received only

the careful handling which the intelligent farmer should give, would certainly be more free from disease and in a better condition than slaughter-house pork. Some Eastern farmers have made for themselves fine reputations for their country-cured hams and bacon, securing a figure much in advance of the market price for their sugar-cured meats. Similar success should certainly be within the range of possibilities for the California and Nevada farmers.

Among the advantages of curing our pork before it is put upon the market, is the securing of a good price for our lard, which should certainly command a higher figure than that so often sold by dealers, so large a portion of which recent disclosures have shown to be not only adulterated, but in some cases made from the fat of diseased hogs. Some of the existing prejudices against pork as an article of diet might be abandoned if all farmers would give to their hogs the treatment which some award them—clean, grassy pens, supplied with running water and an abundance of healthful food.

Another advantage of the home-curing of meats is that it gives to the farmer and his family a variety of toothsome dishes which the capable housewife usually knows how to prepare. Those who live far from "the butcher, the baker and the candlestick-maker" will find the condition of their larders for the winter months greatly improved by having plenty of properly prepared pickled pig's feet, head-cheese and sausage.

In the article referred to in the columns of the Rural, we are told that it is claimed by experienced packers that side pork is better dry-salted than if put in brine. With this opinion we cannot all coincide. I have noticed that meat which is dry salted is usually dry and hard. In years of farm experience I have found no better receipt for the curing of both beef and pork than the following:

To one gallon of water add $1\frac{1}{2}$ pounds of salt, half a pound of sugar, half an ounce of salt-peter, half an ounce of potash. In this ratio the pickle to be increased to any quantity desired. Let these be boiled together until all the dirt from the sugar rises to the top and is skimmed off. Then put it into a tub to cool, and when cold, pour it over your beef or pork to remain the usual time, say from four to six weeks. The meat must be well covered with pickle and should not be put down for at least two days after killing, during which time it should be slightly sprinkled with powdered salt-peter and salt, which removes all the surface blood, leaving the meat clean.

Those who try this receipt seem universally pleased with it, and if used, it will certainly give meat that is sweet in taste. I have often been in kitchens where ham or bacon has been frying, and the room has been filled with so strong an odor as to render breathing a difficult matter, and the meat when brought to the table was so strong that one would naturally be made to wonder as to the process to which it had been subjected in curing to bring about such a result. As large as the dairying interest of California is, it certainly seems that there should be less ham and bacon shipped to us from the other side of the Rocky mountains, and also that the California farmer should be able to put upon the market as good an article as any offered by the trade.

M. P. A.
Sierra Valley, Cal

BERKSHIRE SALES. — Phil. M. Springer, Springfield, Ill., sends us information of transfers of thoroughbred stock reported to the "American Berkshire Record": Redwood Lass II 15763, Bessie W. 21136, Midnight 21137, Nora 21138, Madge 21139, and Sir Charles 21140, by Andrew Smith of Redwood City, Cal., to A. L. Whitney of Petaluma, Cal.; Standard Duke 21162, by N. H. Gentry, Sedalia, Mo., to Thos. H. Tongue, Hillsboro, Oregon; Royal Standard 21163, by N. H. Gentry to R. W. Carey, Macleary, Oregon.

HORTICULTURE.

Pruning Apple Orchards.

EDITORS PRESS:—Under the above caption a communication appeared in a recent issue of the Press, criticising the mode of shortening in or cutting back the long, slim limbs of some apple trees. The writer takes decided grounds against this mode of pruning, and advises to cut limbs close to the trunk of the tree, etc.

The result, which in many instances follows cutting off the extremities of large limbs, viz., the sprouting out of a multitude of sprouts at the end of the several limbs, is due, not so much from the act of cutting off the limb as from the improper manner and wrong time of cutting it off. That these long thin limbs should be cut back, in order to induce a growth of fruit spurs and fruit lower down, thus lessening the liability of the limbs breaking down, with their loads of fruit near their extremities and of the fruit becoming sun-burned and less exposed to the birds, as well as having the fruit near at hand, must be apparent, it would seem, to any one. Had the limbs been cut back while the tree was young, when it should have been done, there would have been no necessity of cutting them back when they became old; but "better late than never." If limbs on old trees are shortened in when the sap is descending, which is the wood-forming period, and cut off near to a vigorous leading shoot or twig, there will usually be no sprouting out of twigs from the end

of the severed limbs, which is nature's process of restoring what has been severed and which occurs at the time the sap is ascending. Under no circumstances should a limb or twig be cut off close to the trunk of a tree, except where the limbs are too close, and are crowding each other. Two or three buds should be left on every limb or sprout to be removed, which will develop into fruit spurs and thus have fruit growing on the limbs near the body of the tree, instead of obliging the sap to ascend a number of feet skyward, to develop blossoms and fruit, where it will be difficult to get at and much more exposed than if grown near the ground.

As I am no longer a resident of California, it may appear presumptuous in me to give advice about fruit culture in California. 2000 miles away. But notwithstanding my body is here, I cannot confine my thoughts and inclinations from going out to the Golden State, where, "had I the wings of a dove," I would be ere this letter will reach you.

J. S. TIBBITS.
Muskegon, Mich.

Cost and Benefits of Fruit Canneries.

Now that so many localities are discussing the cannery propositions, the following letter, which the Woodland Democrat has secured from J. J. Groom, the well-known cannery expert, will be read with interest:

"Take for instance the country around Gilroy; in one year it has caused thousands of trees to be planted and a nursery has been started near the cannery. A large tract of land has been subdivided and sold at advanced prices, and quite a town has sprung up near the cannery.

"It has had the same effect in every locality where canneries have been started. I could mention a number of places. Take our own town—Los Gatos—for example. Since the cannery was started, in 1882; it has made a wonderful growth. The first season's pack was 6000 cases in quite a small building; the company have gradually increased their pack from year to year, and last season put up the large amount of 50,000 cases, consisting of 24 cans to the case, a total of 1,200,000 cans, consuming the enormous amount of 1200 tons of fruit. Their buildings cover a large amount of ground, and they will still further enlarge the coming season. Their goods are known all over the world; there is no better way to advertise a place than through the medium of a cannery. It has a tendency to bring in new settlers and will give employment to every woman and girl in town, from ten years of age up, and a number of men and boys, at remunerative wages. The class of women and girls I have mentioned earn but little real money outside of a cannery, as it consists largely of those who have homes and cannot leave them to work by the week, but can go to a cannery for from 75 cents to \$1.50 a day, and still keep their work going at home. All this money earned by women, girls and boys finds its way at once into the merchant's money-drawer, and it all adds to the trade and profit of the merchants and business men of the town. Each and every business man could well afford to take \$500 stock in the cannery or make the company a donation of from \$100 to \$500 to have the enterprise started, as it would all come back on the sale of their goods and advance in the price of real estate."

Cost of Cannery Plant.

Cost of tools and machinery for fitting up a canning factory suitable for your locality:

One steam boiler, 14 in. by 12 feet long, including setting up.....	\$700 00
One engine, \$125; press and two dies complete, \$200.....	325 00
One square shears, \$45; 4 side seamers complete, \$20.....	65 00
One sixteen-inch tin former, \$9; 1 anvil, \$11	20 00
One pair of four-inch tin shears, \$5; 1 pair snips, \$1.75.....	6 75
Four platform trucks, \$40; 1 elevator, \$120; 3 bathtubs and tray, complete, \$75.....	335 00
Four syrup-tanks, \$40; 2 dozen balance scales, \$28.....	68 00
One platform scale, \$65; gasoline outfit, \$250.....	315 00
Small tools, pipes and pipe fittings.....	300 00
One capping machine, \$125; 1 syruer, \$25	150 00
Cost of labor fitting up same.....	250 00
Total.....	\$2434 75

This will give you a capacity of 20,000 cans per season; add to this the cost of the building, say \$1800. Should you buy your cans ready made it would save cost of the tin-shop tools, say \$300.

Estimated cost and selling price of canned goods for the season of 1888:

	Cost Per Case.	Selling Per Case.
Std. Crawford peaches.....	\$1 40	\$1 65
Ex. Crawford peaches.....	1 80	2 50
Std. Lemon Cling peaches.....	1 50	1 85
Ex. Lemon Cling peaches.....	2 00	2 70
Black cherries.....	1 50	1 75
Std. white cherries.....	1 75	2 25
Ex. white cherries.....	2 00	2 75
Std. apricots.....	1 25	1 50
Ex. apricots.....	1 75	2 40
Std. blackberries.....	1 50	2 00
Ex. blackberries.....	1 75	2 25
Green gage plums.....	1 20	1 45
Coe's std. Golden Drop plums.....	1 20	1 45
Coe's ex. Golden Drop plums.....	1 75	2 15
Std. yellow egg plums.....	1 20	1 50
Ex. yellow egg plums.....	1 75	2 25
Red nectarines.....	1 40	1 75
White nectarines.....	1 50	2 00
Std. Bartlett pears.....	1 50	2 00
Ex. Bartlett pears.....	1 75	2 65

THE STOCK YARD.

Hints on Hides.

W. B. Sumner & Co., dealers in hides and leather, at 413 Front street, San Francisco, issue a circular relative to the preservation of hides, which will be of interest to a great many people. The circular says:

We would call special attention to the curing of hides in the slaughter house:

When salting hides, the work should be done in a shed or under cover.

First a layer of salt of about one inch should be spread over the floor on the place intended for the hide-pile. Then on the salt spread out the first hide, flesh side up, taking care that there shall be no folds or wrinkles. Cover the hide completely with salt, and then put on the next hide as before, with another layer of salt. It is necessary to have the hides spread smoothly, with plenty of salt between each hide, so that no portion of the hide will be left uncovered. The quantity of salt necessary is about 40 to 50 pounds per hide. It is generally a good plan to make the outside of hide-pile a trifle higher than the center, as this method allows all the moisture to remain in the pile, and prevents draining. This can be done by turning in the shanks and head-pieces, and using plenty of salt.

No hide should be placed in salt until it has lost its animal heat, say from 10 to 24 hours after being taken off, according to the climate and weather. The half-ground salt is the best to use, as the large pieces or lumps in coarse-ground salt often make pit marks in the hide which the tanning will not entirely eradicate. Hides should remain in salt from 10 to 20 days to be well cured. When shipping, the hides should be shaken almost clean of salt and tied in compact packages. The same salt can be used many times, but on becoming very dirty should be thrown away.

In the warm sections, butchers find it difficult to prevent salted hides from drying out, but this trouble can be obviated by having the hide-pile covered by an old carpet or wool-sacks, which should be kept damp. The salting of hides should always be done as described, as by this method the hides are thoroughly cured, the weight holds, and there is no danger of damage by tainting.

Hides should never be cured in a vat. By this process the hides plump up, and then, on being shipped, fall off materially in weight. Hides that have been vatted will not make good leather, as they become thin and flaky after being taken out of the pickle. The plumpness which is so essential in the early stage of tanning cannot be obtained from a resalted or vatted hide, and the weight which hides lose after being taken out from a vat can never be brought back.

A cull or damaged hide being worth about two-thirds value of a sound hide, a little attention to the curing of hides will be of benefit to shippers.

We would again call attention to the necessity of taking care of hides and skins.

Owing to active competition in tanning and manufacturing, buyers give the preference to good stock, and badly handled and cured hides, etc., cannot be sold at full values.

Live-Stock on the Pacific Slope.

A telegraphic abstract of the report of the Secretary of Agriculture gives the number of farm animals in California and neighboring States and Territories, with loss during the year, as follows:

California—Horses, 368,400; loss, 4421. Cattle, 985,176; loss, 22,659. Sheep, 3,956,000; loss, 166,152. Hogs, 647,000; loss, 16,175.

Arizona—Horses, 29,700; loss, 156. Cattle, 457,624; loss, 16,017. Sheep, 665,147; loss, 29,266. Hogs, 16,112; loss, 403.

New Mexico—Horses, 42,560; loss, 1575. Cattle, 143,139; loss, 58,932. Sheep, 3,514,473; loss, 175,724. Hogs, 21,935; loss, 470.

Nevada—Horses, 51,053; loss, 1423. Cattle, 373,907; loss, 13,088. Sheep, 694,046; loss, 34,702. Hogs, 20,244.

Oregon—Horses, 181,399; loss, 4421. Cattle, 692,339; loss, 13,837. Sheep, 2,959,424; loss, 184,296. Hogs, 225,137; loss, 5178.

Of the condition of farm animals in California it says: The general health of horses has been very good. Only a few isolated cases of glanders and pinkeye, and no epizootic, are reported.

The comparative condition of the cattle is above the average, and no destructive diseases have prevailed. From a few sections isolated cases of blackleg or murrain are reported.

The condition of sheep is excellent. No diseases have prevailed during the year except scab, which sometimes is troublesome, but can be cured by dipping.

Hogs are in excellent condition—better than usual. The hog cholera has been hardly known in the past season, and no other destructive disease has prevailed.

A LIQUID HIGHWAY. — The Crescent City Record says that the supervisors of Siskiyou county have adopted an ordinance declaring the Klamath river a public highway for the floating of logs, etc., from the west line of Section 27, Township 47 north, Range 6 west, M. D. M., to where the river crosses the Oregon line, and

have entered into a contract for 20 years with the Klamath River Lumber & Improvement Co., by which the company has the right to collect tolls for floating logs and lumber in consideration of making improvements for keeping the river clear.

FORESTRY.

Forestry Effort in California.

EDITORS PRESS:—There still continue to be addressed to me a considerable number of letters on official forestry business, from persons in the country. Doubtless these friends of the forest and of the tree have not noticed that my connection with the State Board of Forestry has been severed by the Governor. My official life ended on March 4, 1889. As your paper reaches more of the intelligent land-users in the State than any other, permit me to announce through the Press that letters requesting official information, seeds, reports or forest trees, should no longer be addressed to me. I shall, of course, be glad to give such forest experience or knowledge as I have, in a private way, to any one interested in the subject. Persons desiring trees may find an opportunity now of obtaining many rare and valuable ones from the Forestry Experimental Stations at Santa Monica and Chico. These are to be abandoned. Before the officers in charge are withdrawn, the trees may be obtained probably by application. Such trees for instance as the eucalyptus, marginata or Jarrah should be generally tried by competent experimenters, and not be monopolized by irresponsible beer-garden owners. The Jarrah completely resists the effects of the teredo, drives easily and remains sound in water indefinitely. It is the best piling known. A grove of it would be of great value.

It seems a pity that so much investigation for the best trees and effort to secure the seeds of such trees, true to name, and work in planning, planting, and securing the forest station, should be lost to the public, but this now appears inevitable. The whole forestry work of the State is at a standstill. It was commenced and carried out after much hard effort, and was recently in the hands of such competent men as E. L. Collins, special agent to prevent or punish forest-fire setters, etc., to protect the State school lands in forest; Prof. J. G. Lemmon, the distinguished botanist, and his accomplished wife, who had in hand the important and interesting work of describing scientifically and in popular form the forest trees of California, which has never been done before; W. S. Lyon, the accomplished tree-planter and botanist, who is still head forester; H. S. Davidson, engineer, who had nearly completed the first accurate forest map of California ever published, and the tree-planters and special agents, nearly all of whom showed so much interest and enthusiasm in the work of forestry as to deserve special mention. Ten thousand dollars' worth of nursery stock in forest trees was on hand March 1st, and five splendid stations representing nearly every climate and soil in the State, from Chico to San Diego and from the desert to the sea, and worth a considerable sum of money, had been donated. Forest-fire setters were being prosecuted and the public forests protected, when suddenly the whole laboriously erected edifice collapses like a house of cards. It is discouraging. The American people must learn about forestry—either that or the ruin that has eaten into the Old-World countries deprived of their forests must supervene. Beyond a certain point, forest destruction is the destruction of agriculture, inland navigation and of population. With too little forest, the climate becomes extreme in drought or flood, in wind and in dryness.

There is no recorded exception to these results. We in California see an annual rainfall of 60 inches on the forested water-sheds of Mt. Shasta do no damage in forming torrents and but little in floods, while the springs and streams persist through the dry season. On the other hand, a rainfall of four to five inches on the bare and treeless mountains of the Colorado desert every year does great damage to the Southern Pacific railway in washing and tearing it out, while the district is a desert, owing to the absence of perennial water. Every mountain burned over and every forest destroyed in the Sierras of California is a menace to the State. From such scarred places torrents will arise and the permanent supplies of water from these to springs and streams be consequently diminished.

The rainfall that flows from a forested watershed in a month flows from a bare and deforested one in a few hours. In the first case the water is a blessing; in the second, a destroying curse.

The generous and noble spirit of Joaquin Miller has led him to offer to resign his position on the Board of Forestry if I could be reappointed in his stead. Mr. Miller is himself one of the best men in the State to be on the board. At once enthusiastic and practical, he could not but serve the people well. When the present unfortunate difficulties existing in the Board are ended, this will be seen.

While deeming Mr. Miller's offer as not for the best interests of the State, I feel deeply his kind but too partial estimate of my usefulness as a forester for California.

ABBOT KINNEY.
La Manda Park, Los Angeles Co.

PATRONS OF HUSBANDRY.

Some Things in Grange Edition.

In our Grange Edition to-day the following matters of interest are mentioned at more or less length:

State Master Hayes, Oregon, on Woman's Work and State Grange.
Howell Prairie Grange, Oregon.
Watsonville Harvest Feast.
Temperance and Grangers.
Grangers and Business Men.
Revive Buckeye Grange.
A Boy on the Grange.
Salem Grange, Oregon.
Grange Editorials.
Grange Grafting.

Grange Meetings.

California.

Elk Grove, third and fourth degrees.....May 4
Tulare Picnic, Goldman's Grove.....May 8
San Joaquin Co. Patrons' Picnic, Lodi.....May 9
Yuba City Grange Picnic.....May 14
San Joaquin Co. Pomona, Lodi hall, Lodi.....May 25
Bennett Valley Picnic.....May 25
Butte Mt. Pomona, Masonic hall, Yuba City.....June 29
Sonoma Co. Pomona, Santa Rosa.....July 17
State Grange, Sacramento.....Oct. 1

Oregon.

Lane Co. Pomona, Mt. Holly Grange.....May 4
State Grange, Salem.....May 28
Dallas Grange Picnic, Luckiamute Falls.....June 7-8

SUBSCRIBERS who are Patrons, or feel interested in the Grange should bear in mind that, upon application, they can receive the Grange edition of the Pacific Rural Press, containing two or more extra pages of Grange news, in place of the regular edition, without extra cost or the loss of any considerable amount of valuable reading or advertising matter.

Centennial Year.

One good way for the Grange to celebrate this centennial year will be to swing Washington back into the line of State Granges. Shall the district named after the Father of his Country be allowed to stay outside the Grange fold in this centennial year? Washington was a farmer. How inappropriate that the grandest of farmers' organizations should not be strong in this Northwest Territory. Moreover, Washington will soon be formally entered into the list of States. Her star will be placed in our glorious constellation. Immigrants, many undoubtedly belonging to the P. of H. in the East, are flocking to her shores. How much easier to effect the reorganization now than to wait until the now-zealous Patrons shall be weaned from an Order which cares so little for her members that she does not follow them to their new homes.

Patrons of Husbandry.

If we go back to Roman antiquities, we shall find that a patron was one who had emancipated his slave, yet retained some rights over him. Patrons of Husbandry are working to secure the freedom of farmers; yet they claim a few privileges. As the canary-bird has been unfitted for liberty owing to years of cage-life, which, although it may be a prison, yet protects the bird from starvation, storms, cold, hunters, and various enemies, so the long years of hard hand-labor have incapacitated the farmers from all the boons which are supposed to belong to perfect freedom. He needs a guardian, a protector, a defender, who shall still watch over him and devote himself to his welfare. We like this word which designates our Order. The term knights, as selected by wage-workers, is not so appropriate. We prefer to be considered the Patrons, or supporters, of Husbandry rather than to be known as haughty Sir Knights. E.

CITY VS. COUNTRY.—In the city it is a difficult matter to find a man, unless one so obnoxious that he has no friends, who does not belong to one or more fraternal societies. Does not this convey a lesson to the farmer? If those who live close to each other, where there are various social features, cannot hold aloof from these societies, if they find it a help to them financially and socially, why should not farmers see the necessity for joining the Patrons of Husbandry? They cannot have the social life to be obtained in the city; in fact, that is one of the chief reasons which induce their youth to leave home comforts for city will-o'-the-wisps. If business men, who are better posted on frauds than the average farmer who lives at a remote distance from neighbors, and have finer facilities for information, need combination in an Order to protect themselves, how much more the tillers of the soil!

POSTPONED.—North Butte Grange postponed its meeting April 27th on account of the G. A. R. celebration.

A Pathetic Address.

Delivered by Worthy Overseer Davis Before Santa Rosa Grange, April 13th.

Worthy Master, Sisters and Brothers:—The Worthy Master of the State Grange has just given you one of the symbols of silence. There is another symbol of silence, and that is a silent tongue. There are times in our lives when the heart seems too full of memory's emotion to find proper expression to convey to living humanity all the tumults and strifes, the anxieties, sorrows and griefs, of the fires that may be within. While this has been one of the festal days in Santa Rosa Grange, it has been to me one of the saddest. Not sad because I am unwilling to meet you; not sad because you have not taken me kindly by the hand, nor carried me in your hearts; but sad, my sisters and brothers, because it has carried me back in recollection to similar occasions in which I as a participant contributed my feeble might of body and mind to the betterment, I trust, of our Order; and it has awakened memories of those who are without our fold.

Humanity is very weak. Evidences of weakness are seen on every hand. The soldier may run to the battle-front with his saber in his hand and strike his deadly blow, not knowing at the instant there may be a minie-ball speeding its way to pierce his own heart. The greatest soldier of all is the soldier who, having borne the burdens of this life, enters the presence of that God of everlasting and universal mercy who sends to every one of us the sorrows and joys of this life. We hold in our Declaration of Purposes, "In essentials unity, in non-essentials liberty, in all things charity." If there had never been another message promulgated by the Grange, another precept expostulated upon, this Order would not have lived in vain.

Since I first became a member of this Order, I have heard the uninterrupted cry about co-operation. I stand here as one of the representative co-operators of this State. In this Grange movement, I have never put but a few dollars in the co-operative plan. As I understand co-operation as used in our Declaration of Purposes, no two persons can co-operate who do not get upon a common basis. The co-operation which this Order was intended to teach is that co-operation which makes a broad mind broader, which makes a liberal heart more liberal, which makes willing feet more ready to speed them on errands of mercy, charity and brotherly love, and not that co-operation which will say, "I will take \$21.40 and only put down \$20." Far from the emotions of my heart be any sentiment of co-operation that will take from my neighbor anything which I am not willing to give.

Perhaps I have been mistaken; perhaps I have never viewed it, with all its wonderful panorama, from the proper elevation. Perhaps that Great Being, whose charities and whose sorrows and whose mercy comes whether or not we bid it, has not properly taught my mind, thoroughly educated my feet, disciplined this heart, elevated these eyes, trained these ears, or instructed this tongue.

Bring Lambs to the Fold

The Grange is the place to bring our boys and girls; to train them into manhood and womanhood. I do not know of any better place to bring them and to encourage them to charity.

I am excited to-day. I am nervous. You have all heard me talk before. The most of my life has been passed in Santa Rosa; 40 years with their unvarying changes, 35 in this beautiful city of Santa Rosa, by night and by day, in sunshine and storm, in winter, spring, summer and autumn, I can say sometimes to my satisfaction, oftentimes to my regret. Failure confronts me; success does not visit me. While I live and wherever I go, I will never think so kindly of any spot on earth as I do of Santa Rosa. To me it is the Garden of Eden. I have been led into temptations here; I have been blessed here.

I cannot express, Worthy Master; I cannot express to you, my brothers and sisters, who have held me in memory dear these many years, whose kindness has not been measured by the inch or the foot or yard, but by the full length of your generosity. I cannot leave you without misgivings. Perhaps this is the last time in my life that I will ever put my foot in this hall. As long as I live, wherever I go, I will cherish your fraternal feeling, and whether my days be many or few, they shall always be spent as in the past, elevating, benefiting. I have no enemies to punish; nobody but friends to reward. I implore the assistance of the Great Master of the great Grange above to give to you more wisdom, more strength of purpose, more days to do unto other people as you would have them do unto you, and

may God, in His infinite mercy, help every one of you. I thank you for your attention. I cannot talk more.

The Granger in Politics.

MESSRS. EDITORS:—As an association, the Grangers are prohibited from the discussion of party-political questions in their assemblies, but political questions not partisan in their character may be openly discussed and action had thereon.

The Grange association is conservative in character. It is composed chiefly of agriculturists who, in a sense, live remote from each other, who do their thinking while pursuing their labors on the farm, and whose opportunities are comparatively few of communicating their thoughts to others; hence the necessity of a Grange organization among farmers, providing for frequent meetings of the farmers, where all questions affecting their interests as farmers and taxpayers might be inquired into and conclusions reached.

As the farmers' interest is largely affected by legislation, and as legislation deals with political questions, the Grange, if true to its purposes, must necessarily discuss politics in its meetings, and if conclusions be reached, must, if it does its duty, take action, though this action, to be effective, must be united. Individual opinions and predilections must yield to what is deemed the general welfare; otherwise action will be vain. The objects and purposes of the Grange, by its rules and the pledges of its members, are secret. No member can publish them outside of the Grange save by its permission, without dishonor to himself as a Granger and a man.

The Point.

With these preliminary observations, I now come to the point of my argument. Grangers have a deep interest in all questions of law affecting the security of life, the promoting public morals, advancing their prosperity and limiting public expenditures. These several ends are to be attained only by legislation and the due administration of law. Hence Granges have a deep interest in the character of the men holding public trusts, their virtue, their intelligence and their honesty. Without these qualifications in any public official, the body-politic will be robbed, and life and liberty rendered insecure.

Our public officials are said to be the choice of the people. In name it is true; in fact it is not true. The people of the country are divided into two great political parties. In each of these parties is found a class, politicians they are called, who make it their business of life to formulate party sentiment by the machinery of State and County Central Committees and irresponsible bodies, calling primaries and conventions to endorse nominations agreed upon in such meetings. So endorsed, these committees parade before the public these nominations and call upon their respective parties to sustain them. These candidates are subjected to enormous pecuniary assessments by these central committee-men, and to reimburse them they are promised, if elected, extravagant salaries, two or three times the value of their services in the positions they are to fill, and to accomplish which these same Central Committees select pliant tools as legislators to enact the payment of such salaries, and thereby unduly increase the burdens of taxation.

Now, were these nominees so put forward the choice of the people? It is an absurdity so to decide. The people had no choice but to accept one of two names presented to them to vote for—names of men who, probably, had bargained for their nomination and obtained it for a money consideration. The people, had they been left to select their own men for office, would never have selected the men they were called upon to vote for.

How We Can Reform.

The Grangers have it in their power to correct some of the evils grown out of our present system of making nominations to fill positions of trust. Let them advise, perhaps at the next meeting of the State Grange, that members of subordinate Granges hold themselves aloof from party primaries and party conventions. Let parties make their nominations. Let the State Grange hold its session after the several political parties have made their nominations in 1890, say some time in October of that year, and at such session, by committees or otherwise, canvass the merits of such nominations, and from such canvass formulate a ticket which Grangers, as such, can and will support, regardless of party affiliations, and then resolve to vote such ticket as a unit. Let the Grangers' organization do this, and it will find itself an organization both feared and respected by our modern

politicians. Let their purpose once become known, Grangers will have these fellows coming to them to find out in advance their opinions as to the fitness of this man or that man for this or that position, and whether, if nominated, he will get the support of the Grangers.

By pursuing the course here indicated, Granges will become a power in the Legislature such as they never yet have had. They will be able by proper organization in the Legislature to correct many of the legislative abuses from which the people now suffer. They will be able to put down bossism, or at least render it ineffective in the Legislature, and accomplish many much needed reforms in legislation.

I trust the Grange organization, now a growing institution among the people, will adopt such measures as will give it a greater power for good than it now possesses, one of which I am confident is to vote as a unit for men and on measures whereby the public weal may be effected. GRANGER.

Haywards, April, 1889.

San Jose Grange.

The meeting of the San Jose Grange yesterday was well attended, O. F. Alley presiding.

The first and second degrees were conferred on Miss Cora C. Cressy.

Under the head of suggestions for Good of the Order, S. P. Sanders gave an interesting reading, and D. C. Feely a short talk, on the changes that had occurred in our beautiful valley within the last thirty years. He spoke of the spirit of enterprise that was shown in the growing orchards and blooming gardens, and made reference to the Stanford University and Lick Observatory to show the promising outlook for the future. In closing he said: "While all these things are going on are we, as a Grange, doing all that we can? Have we done anything to procure a lot? I have thought several times that the San Jose Grange ought to do something to procure one before land gets too high. Why not have a fair once a year and make a little money to help secure one? It is a subject that we, as a Grange, should consider."

Mrs. McGrew, a visitor from Temescal Grange, was called on, and made a few remarks, in which she said: "I am glad to hear the brother's suggestion. You should have a lot. I hope you will get up a fair and build a hall. If San Jose wants to get up a fair, I know the Temescal Grange will help them, and I, for one, will do all in my power to help in the good move."

The question was discussed of the State Board of Equalization interfering with the law which was recently passed in the Legislature exempting trees and vines from assessment. Messrs. Sanders, Alley, Pettit, Feely and Cressy took part in the discussion. The general opinion was that the interference by the State Board of Equalization was unwarranted and unauthorized by law; that it is clearly the duty of the courts to decide upon the constitutionality of any law. The question arose whether the Assessor has any right to violate his oath of office and go contrary to law until the law has been declared invalid by the Courts of the State.

A committee of five, consisting of Messrs. Feely, Sanders, Pomeroy, Pettit and Volmer, was appointed to confer with the Assessor in regard to the subject.

There being no further business, the Grange adjourned.—Mercury.

A Good Showing.

MESSRS. EDITORS:—In reply to your inquiry, I send you herewith a statement by States of the number of Granges organized and equipped from October 1, 1888, to April 15, 1889. It is safe to say that more than double this number of dormant Granges have been reorganized: California, 1; Colorado, 3; Connecticut, 15; Illinois, 10; Kansas, 2; Maine, 2; Massachusetts, 7; Michigan, 1; Nebraska, 10; New Hampshire, 5; New Jersey, 1; New York, 31; Ohio, 4; Oregon, 11; Pennsylvania, 20; Rhode Island, 3; Vermont, 1; Virginia, 1. Faithfully,
JOHN TRIMBLE,
Secretary National Grange.

Washington, D. C., April 22, 1889.

YUBA CITY GRANGE is preparing for a grand time at its sixteenth annual picnic at Hock Farm, May 14th. Rev. C. D. Barrows of San Francisco will deliver an address, and Gov. Waterman is expected to be present. Two bands will furnish the music, and \$75 in cash prizes will make some happy.

TULARE PICNIC.—The date of holding the Tulare Grange picnic has been changed from May 4th to May 8th.

Fraudulent Frames.

Some of our readers may get this circular. The name of the company has been changed, that we may not give them a free advertisement:

THE [BIG GULL] PORTRAIT COMPANY.

HIGHEST GRADE PORTRAITS IN CRAYON, INDIA INK AND WATER COLORS.

CHICAGO, April, 1889.

Dear Sir:—To introduce our highest grade of portrait work in your locality, we will for a few days make the following offer:

Send us a photo or any small picture of yourself, or any member of your family, and we will make you a full life size crayon or india-ink portrait (20x24) free of charge.

The only consideration asked of you is that you will promise to get it framed in a suitable frame for a fine portrait, so it will show the work to advantage, and exhibit it to your friends as a sample of our work, and thereby assist us in securing orders.

The portrait we propose to give you free will be identically the same class of work and size agents get from \$30 to \$40, the price varying according to style of frame selected.

If you should not have any picture you desire to have made, please hand this to some one whose influence will be of service to us. This offer will hold good for a few days only. A guarantee for the return of your small picture is assured, so have no fear of losing it. Awaiting your order, we remain, Respectfully yours,

[BIG GULL] PORTRAIT CO.

P. S.—Inclose stamp for return of small picture.

Probably they get the original picture, a keepsake of value, often enough so that they can hold it till you pay for a \$10 to \$20 frame on a picture a poor artist makes in an hour or so. The victim is probably led on step by step, by various devices, till making pictures for nothing is very profitable.

The fact that a concern goes to the expense of advertising to do something for nothing should prevent persons from being duped, but the number of gulls left denotes no scarcity.

A Boy on the Grange.

The following brief but meritorious essay on the Grange was written for the *Pacific Farmer* by Claude S. Howard of Mulino, Oregon, a 14-year-old boy:

Does the Grange do the farmers any good? has long been a question among men of all trades. I say it does do good. In the first place, if you are a member you obtain a receipt from the Grange proving you are a member; you present it at the store where you wish to buy goods of any kind, and you get a deduction which you would not get if you were not a member. The Grange also promotes social and moral principles, and is a charitable institution. Its main object is to lift off the burden on farmers struggling against corporations and injustice. I will give some instances of injustice on farmers: The farmer fattens his beef off the well-earned wheat or oats, takes it to market and gets three or four cents per pound for it; he goes around to the butcher-shop and buys beef at the rate of 12 or 12½ cents per pound. That is brutal injustice, against which the farmer is striving. This is what the Grange is trying to do, to relieve the farmer from such injustice. A few rich men control the farmers altogether. They must bend to their will, or starve and be ruined. If the farmers go to kicking, these rich men say, "You can come up to our rules or go." This is the same in milling. A few rich men own nearly all the mills, and they can raise the price of flour to \$10 per barrel or lower it to \$1. A farmer takes his grain to mill and gets 75 cents per bushel, and has to pay \$5 per barrel for flour. This is what the Grange is trying to do away with, and for this tyranny the only way to do is to band together in the Grange or some other institution and beat and destroy these corporations.

It is the same way with everything; a few men monopolize all the productions of the farmer, who has barely enough to live on.

The Grange is an institution to remedy all these evils and promote charity to the poor, sick and suffering; also is a place for the young people to exhibit their talents, to educate them, and a place for pleasant talk and other social occupations.

Farmers, now is the time to oppose and destroy the serpent before he rises and crushes us. Men of all creeds and religions join the Grange, as it does not interfere with their political or religious views.

A NEAT DIRECTORY.—Sister Addie S. Hale, wife of the Master of the Connecticut State Grange, and one of the Standing Committee on Woman's Work in the Grange, writes from South Glastonbury, April 22d, thanking us for copies of the Rural Press and Patron, with which she was well

pleased. She forwarded us a very neat official directory of the 100 subordinate Granges in their State. It gives the address of the Master, Lecturer and Secretary of each Grange, together with the date of place of meeting. It is convenient and worthy of imitation by other State Granges.

Prospects for New Granges.

MESSRS. EDITORS:—Just returned from Starkey and Parkfield. Held meetings at both places, and have appointed a meeting to organize a Grange at the former on the 27th inst., and the latter on the 29th. I expect Bro. Webster to take the lead at Starkey. Parkfield being nearly 40 miles away, I shall not have his valuable assistance there. All that is needed to start the ball rolling is plenty of hard, determined work.

F. B. LOGAN.

Creston, Cal., April 24, 1889.

MEETING AT NAPA.—Owing to a combination of circumstances seemingly unavoidable for the day, there was only a small gathering of farmers at Napa last Saturday. Although a number of those present saw and felt the great need of an organization, there did not enough respond to warrant the formation of a Grange at this time. W. A. Fisher of Napa, S. Good-enough of Santa Clara and W. C. Blackwood of Haywards spoke ably and earnestly in behalf of the farmers' cause and the importance of the organization. Jas. G. Clark ably recited a Grange poem, which we hope he will repeat at some larger gathering. We shall also take pleasure in reporting at a future time, if possible, some well-timed words of the speakers mentioned. The earnestness shown by several old members of the Grange (some of whom came 17 miles) convinced us that we were right in believing that there should be, and yet will be, one of the leading working Granges of the State in Napa.

SAN JOSE GRANGE has some one who furnishes the local papers with a good report of all their meetings. Thus all farmers in that vicinity know the Grange there is alive. Eastern farmers, intending immigrants, in reading the papers, learn that they can still find Patrons here as in Maine, New York, Illinois, or any of the Eastern States. If all our Granges would send reports to the local press, the editor would gladly publish, and it would do much toward upbuilding the Order.

OUR THANKS are due Bro. N. V. Williams of Woodland for favors in reporting the late Deputy meeting. We are glad to have a Granger in our ranks who can take down notes verbatim, and trust Bro. Williams will continue to be useful in giving us further reports, and receive due appreciation from our readers and the Order at large.

SAN MATEO COUNTY FREIGHT RATES.—R. G. Sneath, proprietor of the Jersey Farm dairy at San Bruno, San Mateo county, filed on Monday with the Railroad Commissioners a presentment and complaint in reference to freight rates to San Bruno from north and south. He claims that, being a large shipper in both directions, he is unjustly and injuriously discriminated against in the rates which the Southern Pacific makes to San Bruno, as compared with its rates to San Francisco from San Jose and intermediate points, from which points complainant ships much hay and grain in carload lots, and that the rate between San Francisco and San Bruno, 14 miles, is so high as to be almost prohibitive, being \$1 even on carload lots, or more than 7 cents a mile. He prays that the Commissioners order a concession to San Bruno from San Jose and nearer south points of 50 cents a ton under the rate to San Francisco, the rate to San Bruno and San Francisco from such points being now exactly the same; and that they further order that the rate from San Francisco to San Bruno, or reverse, shall not exceed 5 cents per mile or 70 cents per ton for full carload lots.

NOT THE CALIFORNIA LEGISLATURE.—It is telegraphed from Washington that W. A. Cuddy, who was Chaplain of the Legislative Assembly of Arizona, which has just adjourned, has sent to the Treasury Department for deposit in the "conscience fund" the sum of \$250, being a part of the salary paid him as Chaplain. His motive for this action is explained by him as follows: "I cannot see that it is right for the rulers to take the people's money and pay it out to some hypocrite to stand up before a legislative body and pray for pay." He also states he once acted as Clerk of the Legislature and received for his service \$640, but while performing this duty he was also employed in whisky selling. He thinks he should return the \$640, and would do so, he says, but for the fact that he has not got it. Cuddy resides at Phoenix, Arizona.

SUGAR BEETS IN OREGON.—The Board of Trade at Independence, Oregon, has been distributing sugar-beet seed among the farmers to test the Polk county soil. The products will be sent to this city for testing.

Farmers' Institutes.

The most progressive farmers are those who study most. There are various methods of study in addition to reading a good agricultural paper published in the neighborhood, and chief among them we might mention actual experiments and communication with each other. Let men work as carefully in a certain corner as if they were conductors of experimental farms, then let them hold farmers' institutes, and give each the benefit of these practical experiments. States like Wisconsin, which make much of institutes, always have an intelligent class of farmers. Such men dignify farming, their children believe the library as important as the utensils for manual labor, and although the muscles are hardened, still the brain is developed. When farming is made truly scientific, the old-fashioned sneers at the pursuit will cease, the "fool of the family" will no longer be considered the proper one to be a farmer, but the very brightest will be selected. Does it not require as much ability to conduct the affairs of a large farm as those of a mercantile business? A farmer has to do everything, while another sells and a third keeps accounts, but the farmer is purchaser, landlord (because he boards his employees), director, bookkeeper and seller. If the market be bad he must know it, so that he can hold his crops until the proper time; he must keep posted on all fluctuations; he should know enough of soils to put everything in its proper place, and his knowledge of entomology should enable him to know the nature of all insect enemies and the quickest and best method of getting rid of them. The successful farmer must be a very competent man, but when a number meet together and compare notes, each adds to his store of knowledge, and the assembly becomes a two or three days' university, imparting instruction to all who attend. It is always the ignorant men who think they know enough, but modesty is generally linked with true knowledge. It would be well if California, with her large number of intelligent soil-tillers, could have a series of institutes, located in different sections, with attractive programs and experts on different specialties to address them. Three days, or even two, spent at such a meeting, would save much money and prevent grievous mistakes. Which will be the pioneer county in this movement?

Pests in the Vineyard.

EDITORS PRESS:—Much alarm is felt at the presence of a destructive bug that is now working in the vineyards; indeed, we find several kinds, but most numerous the gold-back or 'possum bug, the tender Muscat claiming most of their attention, while the Malaga has not received a visitation from them. Some think there is a property in the sulphur that attracts them, as they work most voraciously on the sulphured vines. The vines or leaves present the appearance of having been scorched by heat.

Some vineyardists are resorting to the bug-picking scheme, but this seems a slow and expensive process, as it might be made continuous.

A specimen of the bugs has been sent to Mr. Wheeler, the vine-health officer, asking for a remedy, but no reply has yet been received. The vines thus attacked will soon need a new foliage dress to protect the fruit, otherwise our vineyard interests will greatly suffer from the ravages of this pest.

There is also a cut-worm making its appearance, and in this we may suffer from alarm mostly. We have even experimented with the pepper tonic which we find in the Rural as used by W. C. Potter, but they seemed to take kindly to such treatment and stay with us all the more, so fearful of bad results from experimenting further, we await the action of the board of health.

My neighbor, Mr. R. S. Mulholland, who has a fine young vineyard, found the rabbits were about to destroy the tender vines, when he applied an emulsion of soap and capsicum, and they took but one bite and left. He also applied it to the scale, but they wouldn't let go.

A. L. A.

Temperance, Fresno Co., April 30th.

Orchard Plow.

EDITORS PRESS:—The writer was much interested in a new orchard plow that Gessner & Skinner of Colusa are just introducing. They have a device, light, strong, durable, easily managed, with nothing in the way to bark trees, and which will turn all the ground and out every weed. They use a reversible mold-board and have a clamp that enables them to set it at any angle with the line of draft. In this way it can be changed from a plow to a cultivator when it is desired to stir for moisture after weeds are under control. They will add improvements suggested by this year's work, and turn them out in quantity next season. Besides a general line of foundry and machine work, this enterprising young firm has brought out a four-gang plow for general work, with wheels so arranged that they turn a square corner without any cramping. Judging from materials used, this plow is strong enough for anything. No stronger tools are needed anywhere than for cultivating some of the land in the main valley of the Sacramento.

F. S. CHAPIN.

Assessing Trees and Vines.

The State Board of Equalization has issued the following circular letter:

OFFICE OF STATE BOARD OF EQUALIZATION, SACRAMENTO, April 10, 1889.

To the Assessors: The Legislature passed an Act, approved March 16, 1889, amending Section 3617 of the Political Code so far as to define the term "growing crops," to include vines, nut-bearing, fruit and ornamental trees. The intent of this Act was to exempt trees and vines from assessment. You are directed to disregard this Act, and assess trees and vines, as in former years, as "Improvements," because the Act, so far as it attempts to exclude trees and vines from assessment, is clearly unconstitutional.

The Constitution of this State declares that all property shall be assessed, except certain property, therein named, to be exempt, among which is "growing crops." What is meant by "growing crops" has received judicial determination, and by that you are to be guided.

In 1884 one Royal Cottle sued out a writ against L. A. Spitzer, the Assessor of Santa Clara county, to compel the defendant to refrain from assessing fruit trees for the purpose of taxation. The Superior Court of that county held that the term "growing crops," "under the common and restrictive acceptance of the term, nothing more would be understood than products from annual plants or cereals, maize, etc., and the latter appears to be the sense in which the term is employed in technical legal parlance." The decision further states: "It may be conceded, and correctly, that at the present day, in this State at least, the word 'crop,' taken in its most comprehensive sense, includes fruits grown on trees, but we think it can be affirmed, without serious contradiction, that trees, themselves, never have been included in the term."

The case was appealed by the plaintiff to the Supreme Court, and that Court affirmed the judgment of the Court below. The case may be found in 65 Supreme Court Reports, page 456.

As the Supreme Court has often decided that the Assessor must obey the Constitution, rather than the law, and as that Constitution has received the interpretation of the Supreme Court, there is nothing left for you to do but to assess trees and vines, as in former years, i. e. as "improvements."

If any attempt is made to exempt trees and vines under the definition of "growing crops" the Board must in duty take notice of it when equalizing values.

We have nothing to do with the policy of exempting trees and vines from assessment. We and you must obey the Constitution as interpreted by the Supreme Court.

C. E. WILCOXON, Chairman.

E. W. MASLIN, Clerk.

The San Joaquin.

The Fresno *Expositor*, in a very friendly notice of the article by "H. G. K.," which was published April 20th, makes an important geographical correction, as follows:

A writer in the Rural Press has an exceedingly well-written and generally accurate article upon the San Joaquin valley, but his opening sentences contain some geographical inaccuracies. The San Joaquin valley comprises all that area south of an east and west line through the junction of the San Joaquin and Sacramento rivers, lying between the Coast Range and the Sierra Nevadas and extending south to the Tehachapi pass. But the San Joaquin river, from which the valley takes its name, does not extend the entire length of the valley, nor does it take its rise in Tulare lake. As a matter of fact this river waters about one-half the valley, debouching westward from the Sierra Nevadas at a point about midway in the north and south line of the great plain, flowing westward to the middle and then turning northward. It has its source in the pure streams of the upper Sierras, though in flood-times it does have an accession of its volume of water from Tulare lake through the Kings river slough. In the main, however, the article is most interesting in its statement of past facts and well-based predictions as to the future.

Save the Big Trees!

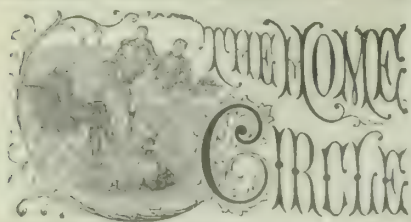
The Fresno *Republican* remarks upon the publication, in an adjoining county, of a number of timber-land notices, "every one of which contains a bug."

"There are nine notices of intention to purchase timber lands in townships 13 and 14 south, range 23 east, Mount Diablo base and meridian. All that land is located in Fresno county, and most of it is covered with redwood—the renowned *sequoia gigantea*, or big trees. There is one tree in that grove that is 108 feet in circumference. There are many others nearly as large.

"This wonderful timber should be reserved from sale, as similar groves have been in other counties. If the land-grabbers are allowed to secure it, this rare timber will be ruthlessly sawed into lumber. In this connection it is proper to state that parties attempted to secure possession of a similar grove in Tuolumne county, in the Stockton district, but the Secretary of the Interior decided that the land was not subject to pre-emption or homestead, and was not for sale as timber land.

"Every citizen has a deep interest in this matter. We would especially call the attention of the supervisors and the members of the Board of Trade to the subject, and we ask the co-operation of the newspapers of the State in aiding us to prevent the title of such land from passing into the hands of private parties."

SAN BERNARDINO county employs 14 more schoolteachers this than last year.



The Rooster Bold.

[Written for the Rural Press by ALICE K. COOLBY.]

One day, into a parlor strolled
A rooster from the barnyard fold.
He strutted here, he strutted there;
Examined sofa, table, chair,
At length he in the corner spied
A great tall thing, all dark and wide.
What it could be he could not tell,
The glass reflected him so well,
He thought a rooster sure was there,
And for a fight he did prepare.
He plumed his feathers, stretched his neck,
And at the glass began to peck.
He saw the other do the same—
"Ha! ha!" he thought, "is that your game?
I'll fool you by a counter-charge."
He crept behind the bookcase large—
"The other rooster gone away?
In barnyard sports that's not fair play."
Again he crept around in front
And at the glass he quickly jumped—
The other rooster jumped as well—
He bumped the glass and almost fell.
He shook himself, his wings he flapped,
Again the battle-ground he mapped.
So cautiously he stepped around
And at the glass again did bound.
Astonishment he plainly showed,
His pinions flapped, and loudly crowed.
The other rooster mocked him still—
"I'm not afraid of you, you kill!"
So, stealing round, he vainly tried
To see where chancier did hide;
For every time he left the glass
His rival left, but did not pass.
Where he could fight it out with him,
And sink his spurs, so long and grim,
Deep in his brain and kill him there,
For mocking him he dared to dare.
So at the glass he dashed and fought,
But all his fighting came to naught.
Perplexed and stupefied, he glared
At his reflection there, and stared—
The other bird stood still as well.
"What do you mean, you boasting swell?"
Again he made the weary round,
So cautiously, without a sound.
Full fifty times around he went,
And even then was not content—
The bird would always disappear,
Yet in the glass he found him there,
His patience, strength and even pluck
At last gave way to such ill luck,
With deep disgust, a look he cast
At his reflection as he passed;
A look of hate, and scorn, and pride,
As out of doors he quickly hid,
All tired and weary with chagrin,
With that bad fight, that had not been.

A Storm Under the Equator.

[Translated from the German of Martius by PROFESSOR GRANVILLE F. FOSTER.]

Midday approaches. The clouds first erect themselves in vaulted forms from the horizon upward. Now they gather together in thick, wide masses, and gradually darkening the sky approach the sun, which still rules the landscape beneath with his perpendicular rays. Under his scorching fervor the plants fairly quiver. Self-lost, they yield themselves to his mighty attraction. Golden winged beetles and humming-birds buzz or hum joyfully nearer. In the liveliest display of colors gay and brilliant butterflies and dragon-flies near the river bank engage in wanton sport. The pathways swarm with ants, which, in long extended lines, are dragging leaves to the structures they are so industriously erecting. Noxious animals too feel the fierce glow and unwonted attraction of the midday sun. The crocodile mounts upward from out his hiding-place in the deep ooze of the river-bed and stretches himself at full length upon the burning sands. Tortoises and lizards creep out of their damp and shady retreats. Handsomely variegated as well as dusky-colored serpents crawl along the warm and brilliantly lighted pathways.

And now at length the clouds begin to lower, forming themselves vertically in huge, separate strata, while ever heavier, thicker, gloomier, they surround the horizon, while just in the zenith they tower upward in enormous widespread masses, clear, shining, in marked contrast to the clouds of deep-lead hue on the horizon. A beautiful image of gigantic mountains is seen in the air. Suddenly the whole heavens become overcast, and only here and there appears a patch of deep blue sky between contiguous clouds. The sun conceals himself. Fiercer than ever, however, glows the furnace heat of the atmosphere over the landscape.

Midday is past. In awful, gloomy, melancholy suspense, hangs this dismal hour, big with terrible consequences, over all nature. Deeper and deeper grows the gloom. More and more awful the suspense, as a woe is to be brought forth, which the air of the day has generated.

Driven by hunger and thirst, the wild beasts roam hither and thither in anxiety as looking for the coming of some terrible calamity, only the quiet, sluggish animals concealed in the

deep shades of the forest have no presentiment that a mighty crisis of nature is at hand—even at the very doors. The crisis cannot be avoided. With rapid strides approaches the storm, so soon to break forth in irresistible violence upon the expectant earth beneath. The temperature of the air rapidly descends. The winds arise from every quarter of the heavens and engage in fierce contention. They root up the forest. They lash the sea into foam—a sea that ever blacker and more awful grows beneath the dark and angry clouds overhead, while the loud, rushing torrents that plunge in its bosom (whose very roar is drowned in the fierce, whistling winds) grow dark and black as night, while they seem to empty therein without the slightest noise—each like a very Phlegethon—a river of hell!

The storm breaks! Twice, thrice, tears a streak of fawn-colored lightning through the dark background of clouds. Twice, thrice, rolls the thunder, with a long-continued and steady trembling through the quaking sky. Drops fall. The plant-world recovers from its exhaustion. Another peal—sharper, heavier than before, as though the whole heavens were falling in one tremendous crash that shakes the world. It is no longer rain that falls, but the very fountains of the upper deep are opened and pour out their contents from the bending heavens. The forest of gigantic trees aways and sighs, while the hisping, rustling sound of the leaves has increased to a roar, striking the ear somewhat like the dull rolling of a distant drum. Flowers shake. Leaves fall. Torn-off branches and stems are precipitated to the ground or are driven through the air by the violence of the wind. The hurricane snatches away the last charm of virginity from the prostrate plant forms. And why not? Have they not bloomed and loved? Does the Inga curl together alone its emptied stigmas? Does the Banisteria alone allow its golden sepals to fall from its already fertilized calyx? Does the stalk of the Arum plant, heavy with fruit, give alone its withered husks as a prize to the tempest?

The animal world, too, feels the effect of the awful hour—an hour of fright and terror to the stoutest and wildest of beasts. Dumb, terrified, the feathered tribes of the forest flutter on the ground. Filled with fear, seek the myriads of insects safety beneath the leaves or fallen trunks of trees. Dissuaded from combat and dealing of death, ravenous beasts cease from following their prey. The cold-blooded amphibians alone rejoice in the descending floods, for at intervals in the storm can be heard the large choros of frogs and toads croak forth their hoarse but not unpleasant music from the watery meadows.

In deep brooks and streams run the muddy waters through the narrow forest paths to the river or pour themselves into fathomless abysses in the ground. Lower and still lower sinks the temperature of the air. The storm is gradually growing less in violence. The clouds are emptying their liquid contents slowly—a little time and the storm will be over. The winds cease. In rejuvenated splendor suddenly the sun steps forth from behind the long-stretched layers of clouds, which gradually separate themselves more and more from each other, disposing themselves toward the north and south, until at last, as in the morning, there are left only light and gauzy cloud-forms skirting the deep azure field at the horizon. Again heaven smiles out of its deep blue eye upon the earth beneath, which soon forgets the terrible ordeal through which it has so recently passed. An hour later and not a trace of the storm exists. Dried by the warm sunshine, the plants stand erect in fresh beauty and vigor, while the various beasts of the forest, driven inexorably by their innate instincts, return to their wonted habits.

Grass Valley, Cal. April 6, 1889.

Shepherds—Ideal and Actual.

We have just received a very pretty chromo representing a shepherd tending his flock. In the foreground stands the shepherd, combining the beauty and graces of an Apollo and an Adonis, a happy smile on his classic mouth and a pretty crook in his hand. In the background are the sheep. Clean, contented animals they look, with their white fleeces and soft eyes. It is a very pretty picture.

Out on the plains of Yolo, a little different scene can often be witnessed. The happy shepherd will be seen fighting black gnats with one hand, while with the other he will be engaged in plucking cockleburrs from his hair and overalls. Once a month, if he has time, he'll wander to some limpid slough and, taking off a pair of overalls and a gingham shirt, will "gambol 'neath the sea-green waves," now and then stopping to howl as a catfish sticks a prong into him. On bacon, beans and onions he subsists, with now and then a steak from a drowned sheep. The sheep themselves are generally very pretty things, being gaily decorated with spavins, burrs and the scab. As dewy eve draws nigh the shepherd drives his flock to the corral, using a wagon-spoke instead of a crook. When a sheep goes astray the Nineteenth Century herder does not say: "Come home, my lamb." He gives the animal a poke with a club and shrieks, "Git along, yo' danged old hobo, or I'll land yo' tail up between yo' years!"—Woodland Mail.

LITTLE BESS (accustomed to see baby creep). O mamma, come quick! Baby is standing on his hind legs!

Marriage and Finance.

EDITORS PRESS:—Permit me to take issue with Sister Nancy Jones through the medium of your columns on the assertion that "a wife should be submissive, or else get left" on the money question. I believe that nine-tenths of all the factors that go to make "marriage a failure" is the unsettled state of domestic finances. In the good old days our grandmother went with an unquestioning dependence to her husband's home.

This couplet explains her situation:
"Bound to their fathers until they're made wives,
Then slaves to their husbands the rest of their lives."

She did not presume to be able to earn her bread either outside of the family or as a member. Her husband expected to support her, i. e., feed and clothe her; and if the bride brought money or lands, it was immediately seized by him and confiscated. In return, the bride performed faithfully the duties of wife, mother, housekeeper, etc., and was apparently humbly grateful for the privilege of being "supported."

But times have changed, and the laws and customs regulating marriage, although advancing, are still far in the rear. The young woman of the present has learned her commercial value. She teaches, she keeps store, she has entered and done successful battle in many fields of employment. The girl earns her own living as early and as successfully as her brother earns his; therefore, when she steps from the schoolroom into a wedded home, her ideas of pecuniary independence revolt at the notion still rampant in the slower brains of man that the wife is a sort of parasitic growth "supported" by him.

Does she sit idly and fold her hands? Ask any young housekeeper which is the easier, her old occupation as bread-winner or the new as bread-maker? House-keeping and its attendant drudgery do not often prove more attractive than do the usual outside employments of women. And is it more lucrative? To the "head" of the family, no doubt, it is a money-saving institution, for the wages of a housekeeper would soon make a hole in his pocket. To the wife? Well, no. Money could not repay the services of a careful, loving wife and mother, and shame upon that man whose wife must assume an attitude of submission when soliciting the pecuniary aid that is her just due! The woman holds her services cheap who will "tease" or cajole her husband for money which is hers, and should be freely shared.

As for earning one's own pin-money by extra work outside, I think the practice reprehensible and wholly inexcusable on any grounds except inability of the husband to provide, for why should she do her work and his too?

The doors of divorce stand now all too widely ajar, but better to live alone than under such humiliating conditions.

COTSON ANN.

The Farmer's Cute Trick.

Th' cutest trick I ever seed played upon a thief was one John Wiley, a neighbor of mine, got up. Ye see, John had been missin' corn for some time. Every night somebody wuz payin' the crib a visit. John thought over it a long time, didn't know hardly what t' do about it, fur, ye see, he thought he knew the poor devil that wuz doin' the work and didn't like to expose him, specially as they lived right joinin' most. At last he thought of a way to stop the thiev' without settin' traps or anything of that sort.

He tuk an' he whittled out a hull lot uv little pegs 'bout one inch thick and two inches long. Then he druv these pegs into two or three dozen ears of corn, hammerin' a peg into th' butt end uv each ear. These ears he sprinkled aroun' over his pile uv corn near the crib door.

Well, th' nex' day wuz a Sunday, an' John found that corn had been stolen as usual. So he put on his 'go-to-meetin' an' walked over to his neighbor's little place. They talked and smoked, you know, and John kept kinder saunterin' along until they were at the feller's stable. There Wiley saw a pile uv fresh cobs which had just been thrown out. Still talkin' unconcerned-like, John picked up a cob an' commenced whittlin' on it. Party soon a peg dropped to the groun'.

"Hello!" says John. "Fanny kind of corn this. Got a wooden peg in th' end uv it." Then lookin' up: "Why, Tom, what's the matter? You look pale."

The feller didn't answer. He knew he was caught an' he stood there tremblin' an' waitin' fur Wiley to accuse him uv stealin' th' corn. But that wuzn't John's way. He jest went on talkin' and whittled several more pegs outen th' cobs; then he bid his neighbor good day an' went home.

Well, sir, Wiley never mentioned th' matter agin, but he kept on neighborin' with the feller same as ever. But you bet he didn't lose enny more corn. 'Bout a year after that the man come to John an' told him with tears in his eyes that the peg business wuz the kindest trick he'd ever had done him; that th' corn he tuk from John wuz th' first stealin' he'd ever done, and the last. "Like enough," he said to John, "if you'd exposed me I'd uv been a thief the rest of my days. But your sayin' nothin' 'bout it, an' your treatin' me so nice afterward, made me ashamed uv myself, an' I've been tryin' to be a better man since. I'll starve before I'll steal agin."

The Editor's Table.

[This bit of verse, which we find afloat without credit, has amused us and may prove entertaining to some of our readers also. And it really does remind us of some tables we have noticed—of course not in the Rural's sanctum.—EDS. PRESS.]

There's a little box of pills,
There's a heap of lengthy bills,
There's a caustic letter from a country reader,
There's a ticket for a stall,
There's another for a ball,
There's a circular about a patent feeder.

There's a pack of cigarettes,
There are letters of regrets,
There's a proof of highly colored lithographing,
There's a solitary ace,
There's a photo of her face,
There are articles to start the angels laughing.

There's a pretty chiming clock,
There's some Western mining stock,
There are stacks of verse in every sort of meter,
There's a cotton office hat,
There's a badly ragged mat,
There's a pipe bowl, than which nothing could be sweeter.

There's a gaily ribboned cork,
There's a map of all New York,
There's a guide to Palestine, and one to Russia,
There's the latest opera score,
There's a lump of iron ore,
There's a relic of a Harvard foot-ball rusher.

There are pots of ink and glue,
There are letters old and new,
There are piles of odd exchanges and of paper,
There's a narrow pair of shears,
There's a glass of that which cheers,
There's a double-backed and pointed letter-scraper.

There's a partly-smoked cigar,
There's an ornamented jar,
There's the circulation swearer's weekly fable,
Oh, the sight will tickle you
If you ever catch a view
Of the editor a-writing at his table.

Bright Dreams of To-morrow.

Mrs. Mary A. Livermore, the famous lecturer, gave an address in Oakland April 16th on "Visions of the Future," which the Tribune reports nearly as follows:

In commencing her lecture she drew a picture of a ship sent to sea with sealed orders. No one on board knew whither it was bound, and when out at sea the commander opened his orders one by one, and finally landed at the port. So it is with man. He is sent out to sea by the Great Commander, not knowing for what port he is bound. The lady contended that every age and every generation lifts the world a little more. She thought that when God wanted to help us most He hinders us. She then went on to show the progress of man. The invention of the telegraph, by which the news from all over the world could be learned every day; the invention of labor-saving machines and many others, all show the progress of man.

She had once asked Edison concerning inventions in the future, and wanted to know his idea—if they would keep going on. He replied that he thought they would, and he believed that the races to come will accomplish such things that they will look back upon what we have done as petty.

She thought, however, that the men of the future must have better bodies than the men of to-day; that civilization has outrun the body, and that it is the duty of the race to look after better bodies. It seemed to her that people in America do not know how to live. After a man had passed sixty, Young America thought he had better order a coffin and get out of the way. The speaker then referred to Gladstone, the Grand Old Man, who is 79 years of age. Her dream of to-morrow and one of the visions of the future is better bodies for coming men and women. Another one of her dreams of to-morrow is that every school shall give bodily culture.

Another one of her visions of the future is that there shall be additions to the schools for the industrial training of boys and girls. Another vision is the complete release from the horrible thralldom of the liquor traffic. She stated that eight out of ten of the men in the penitentiary were there through drink; eight out of ten in the poor-houses were there because of drink, and six out of ten in the insane asylums were there for the same reason. She thought that the proper thing to do is to work up to the ultimate annihilation of the liquor traffic. All parties, she maintained, are under the dominion of the liquor traffic.

"My dream of to-morrow comprehends a complete solution of the labor question. It will be settled by education, discipline, and by the enlightenment of the laboring men. Before you settle the labor question you must settle the temperance question."

GIRLS OF SENSE.—A number of Redding girls have formed an association whose constitution forbids, among other things, the marriage of a member to any one who is not in perfect health; who is not of good moral character; who drinks anything stronger than light wines; who uses tobacco in any form, or who is not actively employed in some trade or profession. The young ladies say they will marry no man who fails to come up to these requirements.

ONE WAY TO RAISE SEEDS.—The idea of teaching every girl to thump a piano and every boy to be a bookkeeper will make potatoes \$4 a bushel in 20 years.—Dodge Co. (Ga.) Journal.

She Got There.

The Oakland *Tribune* credits Rev. Chas. W. Wendte with an anecdote illustrating Mary A. Livermore's grit:

For several years Mrs. Livermore has been in the habit of opening the Sunday afternoon lecture course in Cincinnati, which was organized by Mr. Wendte as a reform measure against the abuse of that day, and has proved rarely successful. On one occasion she had been announced and the usual audience of 15,000 people was preparing to meet her, but she failed to appear at the hotel on Sunday morning, when the committee went to welcome her. By telegraphic inquiry it was discovered that she was stranded at her last lecturing-place, some 70 miles away, with no means of reaching Cincinnati that day. Finally it was proposed to speed her on with a special locomotive. She promptly agreed, and soon was whirling on her way to her appointment at 40 miles an hour. Meanwhile the great audience in the Grand Opera-house was informed of the situation and given the option to receive back their money or wait her coming. Scarcely a dozen left the hall. The remainder waited, chatted, read and visited about for an hour and a half, the tedium being enlivened by occasional telegrams from the flying lecturer, stating her constantly lessening distance from her audience.

At a point 12 miles from the city her locomotive overtook a live-stock train, and she tried to transfer herself to the caboose. The conductor, however, demurred, saying he was not permitted by his regulations to carry passengers, but cattle only. "Very well," replied indomitable Mrs. Livermore; "then weigh me and carry me as live-stock." The joke was appreciated. She was put on the scales, registered at 152 pounds, a waybill was made out accordingly, and she was politely taken aboard, and soon was hastening on again to her destination. A carriage met her at the first city station, and while Mr. Wendte was making his final statement to the now thoroughly excited audience, the lady herself, having wiped the cinders out of her eyes and put on a fresh lace collar, appeared on the platform and was greeted by a storm of applause, after which she proceeded with her lecture.

Chaff.

JUDGE LYNCH'S HUMOR.—A bank president in Southwest Texas made away with all the funds under his charge and then posted on the door of his institution, "Bank Suspended." That night he was interviewed by a number of depositors, who left him hanging to a tree with this notice pinned to his breast: "Bank President Suspended."—*Alta*.

Employer—Patrick, it seems to me that you have been drinking some of the wine out of this bottle, and afterward you have poured water into the bottle so I would be deceived. In fact you are drunk now.

Patrick—Sure sor, it is mistaken that you are entorely. In the foorst place I niver drink wine, and when I do I niver fill the bottle up wid wather. In the next place, sor, when I do fill up the bottle wid wather, I pour in a little whisky, so that the wine will lose none of its strength.

Little Louie Arnold, aged five, before going to church, was told by her mamma to be sure to remember the text, which chanced to be "Why halt ye between two opinions?" On her return, her mamma said: "Louie dear, I hope you remember the text," when Louie replied, "I didn't exactly catch what the minister said, but it was something about 'a hawk between two pigeons.'"

James Payn, the novelist, is editor of the *Cornhill Magazine*, London. Next door to his office a medical journal has its sanctum. One day Mr. Payn's door was cautiously opened, and a pale-faced, long-haired individual entered. "I have brought a little thing about sarcoma and carcinoma," said the visitor. "Very sorry, sir," said Payn, politely, "but we have all the poetry we want." "This isn't poetry!" exclaimed the visitor. "It is an essay on two varieties of tumor." "Oh, I beg your pardon," said Payn; "I thought they were a pair of Italian lovers." The long-haired man was a well-known medical professor who had entered the wrong office.

A SAGACIOUS DOG.—The sagacity lately displayed by a black bulldog is all the theme over at the California line, eight miles from Keno. A three-year-old son of Neil Sly, in the attempt to reach his father, who was at work half a mile away, got lost in a wilderness of sagebrush, and the mother in her despair, after searching in vain all the afternoon, appealed frantically to the dog: "Go, Nig, find baby!" The dog, after smelling around a few minutes, struck a scent, drove into the sagebrush, and in ten minutes was howling a full quarter of a mile away. When the parents reached the spot, there lay the child asleep, its cheek pressing the cold mud and tears still on its baby lashes. "I think a heap o' that dog," said Neil to his neighbors.—*P. J. O. in Oregonian*.

"MAN doubles all the evils of his fate by pondering over them. A scratch becomes a wound, a slight an injury, a jest an insult, a small peril a great danger, and a slight sickness often ends in death by brooding apprehension. It is always best to look on the bright side."

YOUNG FOLKS' COLUMN.

A Piece For a Youngster to Speak.

The Chicago *Herald* reprints the following piece of verse, written by Rev. T. M. Harris of Dorchester, Mass., for Edward Everett, when the orator was a very small boy:

Pray how can I, a little lad,
In speaking make a figure?
You're only joking, I'm afraid;
Do wait till I am bigger.

But since you wish to hear my part,
And urge me to begin it,
I'll strive for praise with all my art,
Though small my hopes to win it.

I'll tell a tale, how Farmer John
A little roan colt bred, sir;
And every night and every morn
He watered and he fed, sir.

Says Neighbor Joe to Farmer John,
"Aren't you a silly dolt, sir,
To spend such toil and cost upon
A little useless colt, sir?"

Says Farmer John to Neighbor Joe,
"I bring my little roan up,
Not for the good he can do now,
But will do when he's grown up.

The moral you may all descry,
To keep the tale from spoiling,
The little colt you think is I—
I know it by your smiling.

And now, dear friends, at my request,
Excuse my lips and stammers;
I for this once have done my best,
And now—I'll make my manners.

The Story of a Haunted House.

[Written for the Rural Press by MARTHA T. TYLER.]

They were a family of rats—quite a large family—and they lived in the attic of the oldest house in Rumford. Nobody could say just how old the house was, or how many generations of rats had lived and died in the dimly lighted garret with the cobwebs and worm-eaten furniture, the empty, antique picture-frames and the ghost; for there was supposed to be a ghost, and for that reason it was so difficult a matter to rent or sell the property, and the place had thus remained untenanted for more than five years.

How the rats laughed at the notion of a ghost! But it was certainly important that they should possess the premises, so they rolled and scrambled through the old walls, scampered over the floors, and squeaked and scratched in the chimney corners that the reputation of the ghost might be maintained.

Now, however, there was to be a change. The dust and dreariness which had so long ruled in the rooms below the attic were to be excluded, and the sunshine admitted. Carpenters and painters had been at work in the old house for several days past, and to-morrow a new owner would be installed. Meantime the rats held a council of war.

Clatter, a youngish individual with long whiskers and a short tail, shook his head portentously and moved to emigrate. He had heard of a vacant house farther up the road where he thought they might reign unmolested; and for his part he could not endure to live in the old attic under circumstances so altered.

"Perhaps," suggested Tweak, who was old and asthmatic, and naturally objected to change, "perhaps we can frighten them off with the ghost."

"Or may be," said the plump and pompous Ginger, "there will be nobody but women, in which case we need not be alarmed at the invasion. I have known a woman to jump and scream at sight of a silly mouse, and what do you suppose she would say to the appearance of a fine large rat—like me, for instance?" he concluded, with an air of importance.

"Listen, my children," said the selfish and hypocritical Greedy; "there will be a larder! and a larder means—with an anticipatory sniff—"a bit of cold meat for supper, and cheese. I, for one, shall remain."

"Squeak! squeak!" cried Ginger in a tone not of the bravest, as he rushed for his hole; for at this interesting juncture the door of the attic flew open, and there, in full view of the terrified council, stood a rosy-cheeked boy and a dog—a terrier that barked ferociously, and was with difficulty restrained from pursuit of the whole body politic.

"Never mind, Snap," said the boy with a laugh; "let's explore the rubbish first; we'll have some fun with the rats afterward;" and he proceeded to rummage an old chest which promised a world of discovery to the curious.

It was quite dusk on the evening of the day following when the rats again assembled for consultation in the attic.

"I have concluded," said Ginger with a flourish of his tail, "that discretion is the better part of valor. I don't mind the women; but a boy and a dog are quite another consideration. Let us go."

"It has been a long time since I have tasted a piece of cheese," whined Greedy, "and"—he thought to himself—"the more of it the better. When they are all gone there won't be anybody to divide with;" and so, although he pretended to grieve at the departure of his friends, he bade them good-by with a light heart and immediately began to plan a descent upon the pantry.

But alas! for the schemes of mice—I should say, of rats—and men.

He ran across the garret that he might listen for a moment at a hole under the door, when all of a sudden he smelt cheese!

"Ah!" he exclaimed rapturously, "so the mountain has come to Mahomet, in a box. How peculiar! But there's a little opening here, to be sure, and—squeak! squeak! squeak!" he concluded quite piteously, for Greedy was a prisoner in a trap.

Presently the awful boy appeared with a lamp and the dog, and then there was a tragedy in the attic of the old house.

"But the ghost?" you ask. Why, of course, it was never heard of again. I thought you understood all along that it was just—"Rats."

Bluejay on a Spree.

"Naw, sir, I ran him down. He's drunk on madberry. I didn't shoot him," so said our little stable-boy, John Henry. We examined the beautiful bluejay.

It was lying in the boy's hand, with a sort of contented *dolce-far-niente* expression on his face. Its saucy eyes were elated and fearless. Its head wagged ridiculously in the effort to hold it up. It was a common North American drunk, nothing less. The bird was intoxicated on the berries of the Pride of China, known throughout the South as the poison or mad-berry.

In Florida thousands of respectable robins, that would blush to do it at home, are found lying about in a state of the grossest drunkenness from the same cause. We wondered if some blue-ribbon society might not be profitably started among these poor birds. But they do not know any better.

We have this advantage over them—we know the madberry when we see it. It is to our disgrace if we do not let it alone.—*Youth's Companion*.

GOOD HEALTH.

REGULARITY OF HABIT.—One of the most difficult of all the minor habits to acquire is that of regularity. It ranks with that of order. The natural inclination of most persons is to defer until the last possible moment, or to put off to another time, where this can possibly be done. Yet habits of regularity contribute largely to the ease and comforts of life. A person can multiply his efficiency by it. We know persons who have a multitude of duties, and who perform a vast deal of work daily, who set apart certain hours for given duties, and are there at the moment and attend rigidly to what is in hand. This done and other engagements are met, each in order, and a vast deal accomplished, not by strained exertion, but by regularity. The mind can be so trained to this that at certain hours in the day it will turn to a particular line of duty, and at other hours to other and different labors. The very diversity is restful, when attended to in regular order. But let these be run together, and the duties mixed, and what before was easy is now annoying and oppressive, and the exact difference between many is just at this point. There are those who confuse and rush, and attempt to do several things at once and accomplish little, while another will quietly proceed from one duty to another, and easily accomplish a vast amount of work. The difference is not in the capacity of the two, but in the regular methods of the one, as compared with the irregular and confused habits of the other.

BRIGHT'S DISEASE IN AMERICA.—An Albany physician declares that Americans suffer more generally from Bright's disease and nervous disease than any other people, and he says that the reason is that Americans sit down so persistently at their work. He says: "Americans are the greatest sitters I ever knew. While Englishmen, Germans and Frenchmen walk and exercise, an American business man will go to his office, take a seat in his chair and sit there all day without giving any relief to the tension of the muscles of the back. The result is that these muscles surrounding the kidneys become soft and flabby. They lose their vitality. The kidneys themselves soon become weak and debilitated. If Americans would exercise more, if they would stand at their desks rather than sit, we would hear less of Bright's disease. I knew of a New York man who had suffered for some years from nervous prostration until it was recommended to him that he have a desk at which he could stand to his work. Within a year he was one of the healthiest men you ever saw. His dyspepsia and kidney trouble had disappeared and he had an appetite like a paver!"

MARRIAGE STATISTICS IN ENGLAND.—It is said in the *Pall Mall Gazette* that each year 15 people out of every 1000 marry. Of each 1000 men who marry, 861 are bachelors and 139 widowers, while of each 1000 women only 98 have been married before and 902 are spinsters. Twelve marriages out of every 100 are second marriages. The average age at which men marry is about 27, while the average at which women marry is about 25 years. Out of every 1000 persons, 602 are unmarried, 345 are married and 53 widowed. Over one-half of all the women between 15 and 45 are unmarried. Married women live two years longer than single ones. If the mother dies first the father survives 9½ years, but if the father dies first

the survival of the mother is 11½ years as an average. Two thousand four hundred and forty-one births occur in England daily—about 33 for each 1000 inhabitants. February is the month in which the greatest number of births occur, June the month in which occur the fewest. The average number of births for each marriage is 4.33. In every 1000 births 11 are twins.

DISORDERS OF THE LEFT SIDE.—Dr. Henry Duchenne has drawn up a list of the disorders which especially affect the left half of the body, and concludes therefrom that it possesses a biological inferiority to the right. He says obliterating arteritis affects the left Sylvian artery oftener; tubercle affects the left lung oftener; calculous nephritis and renal cysts the left kidney; ovaritis the left kidney; orchitis the left testicle; varicocele the left spermatic veins; neuralgia, chorea, hysterical anæsthesia, the left side; cancer of the breast the left mamma.

DEATH FROM LIME-JUICE.—Mary Ellen Sullivan, a three-months-old baby, died at her parents' residence, 204 Van Ness avenue, recently, from the effects of an overdose of lime-juice, which had been administered by her mother.

DOMESTIC ECONOMY.

SWEET POTATO CAKES.—Boil sweet potatoes—remove the skins—rub through a colander, make into flat cakes, dip into flour and fry in hot butter.

EGG OMELET.—Eight eggs, the yolks and whites beaten separately, a heaping teaspoonful of flour and a little salt. Fry in butter, put in the oven to brown the top.

MUFFINS.—Two eggs, one tablespoonful of sugar, ½ cups of milk, one-half cup of butter, three cups of flour, two teaspoonfuls of cream tartar, one teaspoonful of soda.

MEAT BALLS.—Chop a teaspoonful cold boiled ham or corned beef, mix with a pint or more of mashed potatoes, two well-beaten eggs, a little salt and pepper. Roll in balls with flour and fry in hot fat.

BREAKFAST SAUSAGE.—One third cold roast beef, two-thirds of cold boiled or roasted pork, a little powdered sage, pepper and salt. Chop all together fine, make into flat cakes, roll in flour and fry in pork fat or salted lard.

CHICKEN TOAST.—Take the remains of a cold roast chicken, chop fine and put in a stewpan. Season with salt, pepper and a great spoonful of butter, break over the meat three raw eggs, stir all together, pour it upon buttered toast and serve.

JUMBLES.—Two cups of sugar, two-thirds of a cup of butter, two eggs, two-thirds of a cup of milk, two-thirds of a teaspoonful of soda, flavor with nutmeg, and use flour enough to make a soft dough. Roll and cut the jumbles, and sift sugar over them before baking.

BREAD OMELET.—Soak a teaspoonful of fine breadcrumbs over night in the same quantity of milk. Beat the yolks and whites of five eggs separately. Mix the yolks with the bread and milk, stir in the whites, add a teaspoonful of salt and fry a light brown in butter.

PEACHES IN JELLY.—Dissolve one ounce of gelatine in half a pint of cold water, and let it soak about an hour. Then add one pint of boiling water and stir until clear. Sweeten to taste (about one cupful of sugar), and add canned peaches halved or quartered. Cool in mold and serve with cream.

SPICE CAKE.—Two eggs beaten until light, half a cup of sugar, half a cup of molasses, half a cup of sour milk foamed with one teaspoonful of soda, half a cup of butter, one teaspoonful each of cinnamon, cloves and allspice, one cup of chopped raisins and flour sufficient to make as stiff as soft gingerbread. This is a very good plain fruit cake.

A NICE BREAKFAST DISH.—Chop fine two heaping cupfuls of cold-boiled potatoes, add to these two-thirds of a cup of milk in which half a teaspoonful of butter is cut fine, and an egg well beaten is added. Heat gem pans hot, butter them well, fill with the mixture, dust them with flour and put in a hot oven till nicely browned.

HAM OMELET.—The scraps left of boiled ham, if not more than three great spoonfuls, makes a good omelet for breakfast. Take four or five eggs, beat well, add a cupful of milk, put the ham in a frying-pan on the fire, warm a few minutes, then add the milk and eggs and stir together. This makes enough for five in the family.

HASH CAKES.—One-third meat and two-thirds potatoes chopped fine. Season with salt and pepper, add a large piece of butter, and water enough to make it quite moist. While it is warming, toast some thin slices of bread and butter them. Spread the warm hash upon them and pile like jelly cake. Cover tightly and let steam a short time before serving.

CODFISH TOAST.—Shred the fish in fine pieces, freshen it in cold water, drain and mix with it a tablespoonful of flour, half a cupful of sweet cream, two-thirds of a cup of milk, and one egg. Season with pepper and let it scald up while stirring carefully. Make a nice, moist toast and lay it on a platter with the fish mixture over it and it is ready for the table. If one has no cream, use more milk and butter half the size of an egg.



A. T. DEWEY.

W. B. EWER.

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ENTOMOLOGICAL.—The Fruit Growers' Convention—No. 2, 438.

Business Announcements.

(NEW THIS ISSUE.)

Windmills—R. F. Wilson, Stockton, Cal.
Fruit Evaporator—Jas. Linforth.
Wagons—Bull & Grant Farm Implement Co.
Photograph Materials—S. C. Partridge.
Fruit Evaporator—J. H. Wylie.
Hog Food, etc.—E. F. Wellington.
Auction Sale—F. H. Burke, Menlo Park, Cal.
Agricultural Supplies—Mrs. J. D. Enns, Napa, Cal.
Commission Merchants—Witzel & Baker.
Poultry—E. H. Freeman, Santa Clara, Cal.
Orange Seed—L. G. Sresovich & Co.
Hemlock's London Purple Co., New York.

See Advertising Columns.

The Week.

The week is full to overflowing with its great occasion—the Washington Centenary. From end to end of the country the celebration of the event has been grand beyond all anticipation and proclaims anew the patriotism of the American people to the admiring world. A description of the incidents of the commemorations which have been held would fill a volume. Some idea of the popular interest may be gained from the statements that a million strangers were in New York City on Tuesday and that it was impossible even in that great metropolis for the throng to find sleeping room; that there were about 60,000 citizen soldiers in line in the procession, and that the last grand spectacular procession on Wednesday was eight hours passing a given point. These are bare figures, but they give some idea of the popular interest in the great national event. Much the same disposition prevailed every-

where. In San Francisco, the great city farthest from the center of interest, the display was creditable and the general participation of the various organizations of foreign-born citizens betokened their loyalty to American institutions and American ideas.

Of course there were orations, banquets and patriotic declarations everywhere. Not the least of all the formal utterances which will hand down to posterity the spirit of the day will be the tribute of the venerable post-patriot, John G. Whittier, which we print prominently in an adjacent column.

An Appeal to Caesar.

The meeting of fruit-canners, fruit-growers and San Francisco merchants, which was held at the Chamber of Commerce in this city on the afternoon of April 27th, was very plain in its statements of impending evil to the fruit interest and other interests of the State through maintenance of existing extortionate overland freight rates on fruit and fruit products. The representative character of those participating in the meeting and the force of their utterances promise that if there is any relief to be had from the grasping demands of the transportation companies it will be secured.

The chief grounds for complaint on the part of producers have been so frequently stated in the Rural that it is unnecessary to rehearse them. The matter was fully gone over at the meeting, and it was clearly shown that the present tendency of railroad management is to imperil our greatest industry and check the course of development which is now in progress. It was finally decided to appeal directly to the Transcontinental Association by the adoption of the following resolution:

WHEREAS, A meeting of the Transcontinental Association has been ordered for May 9th, at St. Louis, Mo., be it

Resolved, That a committee of five be appointed to represent the views of this association with respect to rates required in order to promote and foster the fruit-growing industry of this State, and to prepare such statistics in support of those views as may be necessary, and present them either in person or lay the matter before the association and request immediate action in favor of the rates required.

It was also provided that if no relief is had from the Transcontinental Association, an appeal will be made to the Interstate Commerce Commission.

Increased Premiums.

The directors of the Third District Agricultural Association (Butte, Colusa and Tehama) have set a good example in raising premiums for agricultural exhibits at the coming fair. The account of their recent meeting in the Chico Enterprise shows that in live-stock all the premiums for graded horses, roadsters, draft and horses of all work were increased from 25 to 35 per cent, and new sweepstakes were provided for. In cattle there are new classes made which give the prominent breeds the chance to show separately. The Enterprise says:

In the fruit department the increase will amount to almost 100 per cent. Beginning with "best display" of apples, increased from \$5 to \$10. The raise has been in the same proportion throughout the list, and the fruit-growers can be assured that this great and growing industry has been more than generously dealt with. In addition to the special premiums in this line a premium of \$20 is offered for the best and \$10 for the second best general display of fruit. As a special feature the board offers three prizes, \$25, \$15, and \$10, for the best, second best and third best design illustrative of the products of our soil. Such design to be displayed at the pavilion, and to be composed of California grains, grasses, fruits and flowers.

The directors also increased the racing awards somewhat, but in what percentage is not stated. The increase in the inducements to exhibitors of useful products, both of animal and vegetable origin, should be noted as a sign of progress.

ORANGE PLANTING AT THE SOUTH.—The Pomona Progress publishes statistics showing a remarkably large increase in the acreage of orange orchards in Los Angeles and San Bernardino counties this season. More orange trees have been planted in this region this year than ever before in the same period. In Pomona valley over 134,000 trees have been planted, at Redlands about 85,000, at Riverside 60,000, at Ontario 40,000, at South Riverside 30,000, in the territory west of Pomona 25,000, and in other localities in this region about 35,000 trees.

Profit in Poultry.

Poultry pays. Few things on the farm are more neglected than the hens, ducks, turkeys and geese. They may be found on almost every farm, but often they have no attention, roosting where they may become the prey of coons, wildcats and other enemies, picking up their living, in some cases starving along, in others getting fattening, carbonaceous foods which prevent their laying. Still, despite all this mismanagement, they yield a good revenue. If farmers would select their breeds for the desired purposes, and get good stock, keep them in small flocks, feed them the proper food and in proper quantities, according to the desired result, and keep a strict ledger account, debiting all expense and crediting all profits, they will find few things on the farm which will pay better profits in proportion to the amount expended on them. They pay indirectly also, so that it is difficult to get a correct estimate of the profits. The horticulturist finds poultry invaluable allies; they exterminate the bugs and insects which would multiply until they destroyed the fruit; they devour the seeds of weeds which would spread and exhaust the fertility of the soil, and their droppings as a fertilizer are nearly equal to guano. Besides the fact that eggs and chickens are always in demand, and millions of dozens of eggs are imported from distant States, the farmer can always count on these valuable articles of food, even when other kinds are scarce. No farmer should do without a flock of hens, and if well cared for they will amply repay him for his labor.

A Primitive Water-Storage.

The Gallup (N. M.) Register says that although the Navajo Indians have no dams nor reservoirs, except in rare localities, and but few running streams, they have an ancient method of holding all the water that falls in summer and making it useful for irrigating their crops, that is not only unique and ingenious, but quite effectual.

Locating their farms in some valley where there is an extensive water-shed above them and where the soil is a sandy loam, the Navajo farmers proceed to throw up low ridges of earth across the valley at tolerably regular intervals. These ridges commence above the line of overflow in times of flood and cross the valley, the first ridge running two-thirds of the way across, the second beginning on the opposite side and running two-thirds of the way back. Thus the rainfall, as it rushes down, is thrown back and forth across the valley, checking its force and thoroughly wetting the soil. The loose sandy loam by this method becomes thoroughly saturated from every cloudburst or heavy rainfall and retains its moisture for weeks.

Thus good crops are secured by the rude Indian farmers, and the Register thinks that their method could easily be made available by Americans in many mountain valleys in New Mexico and Arizona.

DRIED GRAPES.—At the meeting of grape-growers at Viticultural hall, in this city, on the evening of April 26th, there was a discussion on dried grapes. A letter from D. Lubin of Sacramento was read, in which the writer protested against making dried grapes as offering foreign manufacturers a material for fermenting out poor wines to be imported to this country and injure the trade in California wines. Other speakers did not share in this apprehension, but regarded the drying of wine grapes as a good refuge from present apparent oversupply. A committee consisting of J. H. Wheeler, C. O. Kinsey and R. J. Harrison was appointed to investigate and organize a dried-grape trade, and decided to recommend making practical tests of what can be done with dried California grapes in the markets of France. This means sending over several tons of dried grapes to be sold there, probably through commission-houses and to several wineries. Over a month ago two 2½-pound boxes of dried Zinfandel grapes from Sonoma and Fresno counties were sent as samples to France, but no returns have yet been received. It is now proposed to gather up a few tons in the State and send them to French markets, adding the product of this year when ready.

PREPARATORY work has already begun on the eleventh census.

The Vow of Washington.

By John Greenleaf Whittier

Read in New York, April 30, 1889, at the Centennial celebration of the inauguration of George Washington as the first President of the United States.]

The sword was sheathed: in April's sun
Lay green the fields by Freedom won;
And severed sections, weary of debates,
Joined hands at last and were United States.

O city sitting by the sea!
How proud the day that dawned on thee,
When the new era, long desired, began,
And, in its need, the hour had found the man!

One thought the cannon salvos spoke;
The resonant bell-tower's vibrant stroke,
The voiceful streets, the plaudit-echoing halls,
And prayer and hymn borne heavenward from St. Paul's!

How felt the land in every part
The strong throb of a nation's heart,
As its great leader gave, with reverent awe,
His pledge to Union, Liberty and Law!

That pledge the heavens above him heard,
That vow the sleep of centuries stirred;
In world-wide wonder listening peoples bent
Their gaze on Freedom's great experiment.

Could it succeed? Of honor sold
And hopes deceived all history told,
Above the wrecks that strewed the mournful past,
Was the long dream of ages true at last?

Thank God! the people's choice was just,
The one man equal to his trust,
Wise beyond lore, and without weakness good,
Calm in the strength of flawless rectitude!

His rule of justice, order, peace,
Made possible the world's release;
Taught prince and serf that power is but a trust,
And rule, alone, which serves the ruled, is just;

That Freedom generous is, but strong
In hate of fraud and selfish wrong,
Pretense that turns her holy truths to lies,
And lawless license masking in her guise.

Land of his Love! With one glad voice
Let thy great sisterhood rejoice;
A century's suns o'er thee have risen and set,
And, God be praised, we are one nation yet.

And still, we trust, the years to be
Shall prove his hope was destiny,
Leaving our flag with all its added stars
Unrent by faction and unstained by wars!

Lo! where with patient toil he nursed
And trained the new-set plant at first
The widening branches of a stately tree
Stretch from the sunrise to the sunset sea.

And in its broad and sheltering shade,
Sitting with none to make afraid,
Were we not silent, through each mighty limb,
The winds of heavens would sing the praise of him.

Our first and best!—his ashes lie
Beneath his own Virginian sky.
Forgive, forget, O true and just and brave,
The storm that swept above thy sacred grave!

For, ever in the awful strife
And dark hours of the nation's life,
Through the fierce tumult pierced his warning word,
Their father's voice his erring children heard!

The change for which he prayed and sought
In that sharp agony was wrought;
No partial interest draws its alien line
'Twixt North and South, the cypress and the pine!

One people now, all doubt beyond,
His name shall be our Union bond;
We lift our hands to heaven, and here and now,
Take on our lips the old Centennial vow.

For rule and trust must needs be ours;
Chooser and chosen both are powers
Equal in service as in rights; the claim
Of duty rests on each and all the same.

Then let the sovereign millions, where
Our banner floats in sun and air,
From the warm palm lands to Alaska's cold,
Repeat with us the pledge a century old!

AN AGRICULTURAL REPRESENTATIVE ABROAD.
Secretary Ruek has appointed Dr. G. E. Morrow of Champaign, Ill., to represent the Agricultural Department at the jubilee show of the Royal Agricultural Society to be held in England this summer, and he is also authorized to visit such other places in Europe as he deems necessary in order to study the live-stock interests of the Old World. A report of his observations and experience will be made to the department upon his return. Mr. Morrow is excellently qualified for this work.

COMMISSIONER MOTHEBAL ON CUT WORMS.—A sure remedy for the cut worms which are doing such extensive damage to trees and vines in several counties is given to the Visalia Delta by Rev. N. W. Motheral of Hanford: One pound of Paris green dissolved in hydrochloric acid and mixed with 160 to 180 gallons of water. Apply with spray pump. This is poison and must not be inhaled while spraying. A stronger solution than the above will be injurious to trees.

THE United States will make some return to King Mafasa for his kindness toward the shipwrecked men at Apia.

California Salt.

The most important mineral industry in Alameda county is the recovery of salt from the waters of San Francisco bay. This business is carried on extensively upon the east shore of the bay, in the neighborhood of Alvarado and Mt. Eden. At the former place Messrs. Plummer, Barton, Quigley and others have their works; at Mt. Eden are the works of P. Marsicano and the Union Pacific. Two methods are employed in Alameda county for the recovery of salt from sea-water. One is by complete natural evaporation and gathering the residue; the other by allowing tanks of sea-water to evaporate until a saturated solution is obtained, from which the salt is recovered as it crystallizes.

The first process is in use in the salt-ponds of the Messrs. Quigley of Alvarado. At these works a pond covering 400 acres and surrounded by a levee, is filled with sea-water at spring tide. This pond is divided into tanks. There are three tanks side by side, covering an area of 400 acres. As the density of the water in the tanks increases by evaporation, it is pumped by windmills from the two outside tanks to the center one until it is filled with strong brine. This brine is then pumped into a reservoir of 30 to 40 acres in extent, which is filled to a depth of 12 to 13 inches.

Here the density of the liquid rapidly increases, and the salt commences to crystallize. When a crust one and a half inches in thickness has formed upon the floor of the pond, the salt is scraped up. After gathering the salt, whatever mother liquor (bittern) remains is run off, no effort being made to recover any of the elements it may contain. The best and whitest salt is obtained in warm, windy weather, the wind forming ripples in the solution, which wash the rapidly forming crystals. In still, hot weather the salt has a yellow tinge. It takes about three years for a pond to get into a suitable condition for the production of salt. In that time a peculiar "skin" grows over the bottom, this protecting the solution from contamination by earthy matter. These works have been running for twenty years. Their output has been from 2500 to 3000 tons per annum. The second process is in use at the California and Union Pacific Salt Works, in the vicinity of Mt. Eden.

The works of the California Salt Company are situated about half a mile southwest from Mt. Eden railroad depot. The plant consists of 50 salt ponds, which are arranged in "schools" (rows), together with several large reservoirs, one of which is three miles in circumference, the whole covering 2000 acres of land. The sea-water is let into the larger reservoirs, and from there is pumped by windmill into the smaller ponds, and from one pond into another, each pond increasing in the density of its solution. When a saturated solution has been obtained the salt crystallizes upon the surface; it then falls to the bottom of the liquid, where it accumulates. When it has collected to a depth of three or four inches, it is raked out and piled on platforms to dry. The crude material thus obtained is shipped from these works to San Francisco, where it is manufactured into the finer grades of salt by the American Salt Co. In their works the salt is placed in galvanized

iron driers, heated by steam, each drier having a capacity of 22 tons per day. When thoroughly dried it is ground in burr-mills to various degrees of fineness, for dairy and household use. The capacity of the California Salt Works at Mt. Eden is 15,000 tons per annum; that of the mills of the American Salt Co. in San Francisco 1200 tons per month. The cuts show a salt pond at Alvarado and the grounds of the California Salt Works. For these and for the information herein we are indebted to the State Mining Bureau.

Two-Wheeled Vehicles.

This title is strictly applied and confined to conveyances commonly called "carts," but known also as "dog carts," "village carts," etc. One would not think the field of invention in this sphere very broad, nor the necessity for improvement very urgent. Yet in no field has the march of improvement been more marked, or the resulting comfort to the public greater, than has taken place in this simple class. The list of those who have turned their successful attention to this subject is a long one, and we are happy to say that California has kept abreast of the times, and that as good a cart can be had of California invention and make as anywhere in the country. D. W. C. Putnam of Petaluma was the pioneer in this State. He early caught the fever and brought out a cart which for all-round service has stood every test and is deservedly popular. Not long behind him came G. G. Buckland of Tulare, S. W. Metcalf and S. G. Thompson of Santa Rosa, H. Hortop of Rutherford and J. A. Bilz of Pleasanton. By this time the fever was raging and carts were invented and brought out by Wright, Fowler & Shaw of Napa; D. R. McLennan of St. Helena; G. P. Kimball, since deceased, of San Francisco, and better known as the inventor of the "Kimball C Spring;" Jacob Price of San Leandro; W. T. Adel of San

Jose; Geo. W. Dutton of Tomales; B. P. Whitney of Potter Valley; Daniel Carmichael of San Jose; Page & Raynor of San Bernardino; Nelson Peterson of Antioch; Willis O'Brien of San Francisco; Creighton & Taylor of Smith's Flat; Geo. Larsen of San Leandro; Geo. E. Guerne of Santa Rosa; W. T. Goodman of Fulton; F. A. Knox of Woodland; J. A. Gallagher of Stockton; L. St. Ores of Guadalupe; Newell & Litton of Fresno; T. S. Bayley of Alturas; J. A. Saeed of Marysville; K. A. Brigham of Gilroy; Peter Glazer of Redding; J. G. Kenyon of Port Kenyon; Joshua Sovereign of Woodland, and some others.

Given a vehicle made up of an axle, two wheels, a body, springs for the body, and shafts, there does not seem much latitude in arranging them. The wheels must be on the axle, and the body, springs and shafts must be, in some way, connected with it. But if they are arranged in the manner of the old carts, the rider will get that unpleasant horse-motion which has always made carts of no value as vehicles for pleasure or the lighter pursuits. The horse cannot be prevented from jogging, and then the cart body rocks back and forth with the up-and-down movement of the horse. This is the justly obnoxious "horse motion." The secret in overcoming this motion is to give to the body, in one way or another, sufficient independence of movement to enable the rider, unconsciously, to counteract the shaft movement.

This motion is not present in four-wheeled vehicles, because in them the shafts are pivoted or hinged to the axle and can move up or down with the jogging of the horse, and not communicate this movement to the body of the vehicle. But in two-wheeled vehicles this hinge connection of the shafts is not possible, unless other connections are used to keep the body from turning over.

The idea in all these improved carts is to give the body an independence sufficient to enable it to keep itself steady, and then to limit

this independence by yielding connections, so that there will be no danger of swinging too far. This independence is not, in all cases, applied directly to the body, but is sometimes applied to it through the springs, which may be pivoted and limited, or through the shafts which are pivoted and limited, or are divided and limited so that the front portion only of the shafts rises and falls.

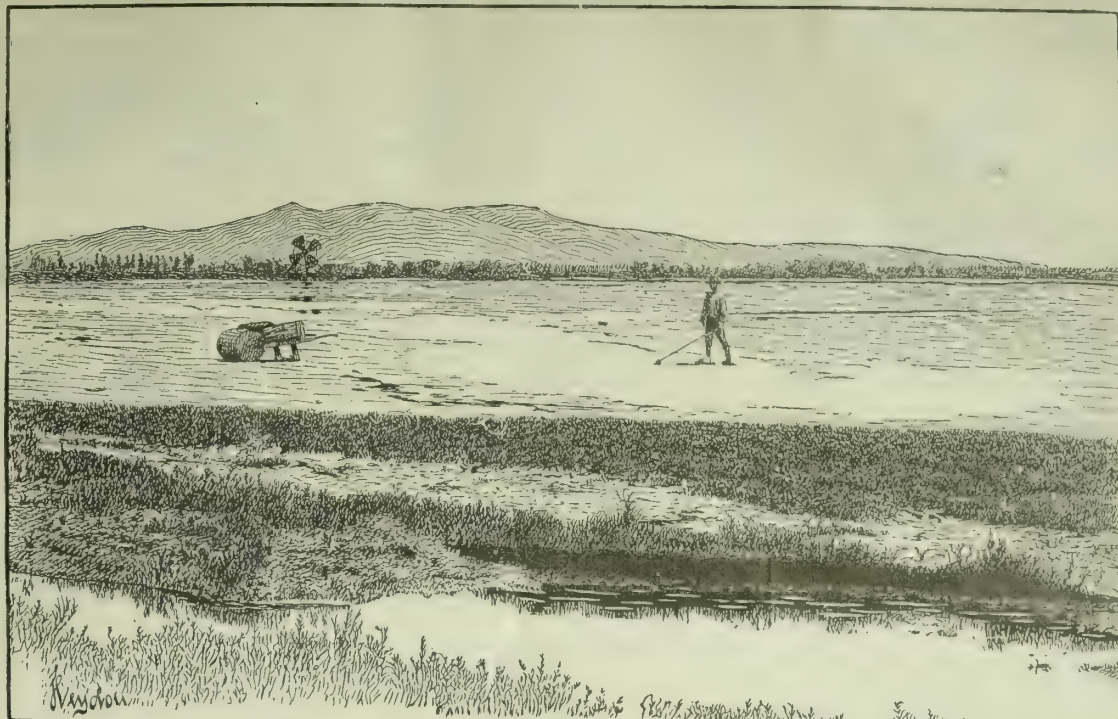
In one form or another all these improved carts succeed in doing away with the horse motion to such an extent that, when compared with the old-time carts, it may be said to be wholly obviated. It is doubtful whether carts will ever take the place of buggies or other four-wheelers, but they certainly find a place in the community, serving their purpose well, and on account of their cheapness and finished appearance are much sought after as novelties, and become necessities after being tried.

DAIRYING IN AUSTRALIA.—Consul Griffin, at Sydney, reports to the State Department that the recent introduction of American appliances for the manufacture of butter and cheese has given an impetus to dairy farming in New South Wales. The absurd quarantine laws have operated seriously against any improvement in the condition of cattle, and there is an agitation for the removal of the restrictions. Pleuro-pneumonia made its appearance in some districts, but the process of inoculation was successfully used to check its spread. The co-operative system of butter-making is becoming very popular and is found to be far more satisfactory and profitable than the old method. The Consul says, in conclusion, that the new protective duty upon imported dairy products is likely to bring about a result directly opposite to that which was intended, as before the duty was imposed the exports were frequently in excess of the imports.

THE HYDRAULICKING OUTLAWS are likely to lose the aid of the Chinese, whom they have been making their catpaws heretofore. Last week George Ohleyer, manager of the Anti-Debris Association, came to San Francisco and had an interview with Vice-Consul Bee relative to the employment of Mongols in the hydraulic mines under injunction. After learning the situation, Consul Bee promised to use his influence to keep the Chinese out of such employment in which they are exposed to arrest. The representatives of the Six Companies expressed themselves to the same effect.

COSTLY CARELESSNESS WITH STRYCHNINE.—D. S. Smalley, a Haywards fruit-grower, lost two fine horses lately. He had mixed strychnine with barley for squirrel and gopher poison. The box in which he kept the poisonous mixture was moved by a hired man near enough to the pasture fence for his horses to get at it. Two of them, one a colt worth over \$300, ate of the poison, and died in less than an hour.

THERE is a report that the oil wells at Seape are not yielding as much oil as formerly.



SALT POND AT ALVARADO.



CALIFORNIA SALT WORKS, ALVARADO, CAL.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

HOMING PIGEONS.—Oakland Tribune, April 26: Wells, Fargo & Co.'s express has been doing considerable business in transporting carrier pigeons from this city to Haywards, Niles, San Jose, Soledad and Salinas. Upon their arrival at these points they are let loose to wing their way homeward. Yesterday morning four were received at Haywards, and within 15 minutes after they were let loose they were in their cotes in Oakland. A few days ago six were received in Haywards from Los Angeles, and made the trip to that place in 7 hours and 15 minutes. The object of these experiments is to test the swiftness of their flying.

HAYING.—Haywards Journal, April 27: It is evident that an unusually large area will be cut for hay. Hesse Bros. began Monday cutting their volunteer, on the home place, and will also cut about 300 acres in the hills. Henry Gansberger also began cutting hay on the Armstrong place on Monday.

Contra Costa.

DANVILLE ITEMS.—Cor. C. C. Gazette, April 25: Haying has begun on a few extra early volunteer spots, but there will be little cut before the middle of May. Grain here and toward the east is remarkably clean, but south, near the Alameda county line, wild oats are coming up very fast, and by next month it will overtop and almost hide the wheat and barley in many fields. That is caused by farming the land to grain continually for the last 20 years. Here we have adopted a system of pasturing or raising corn on the land every other year and grain the next, which brings good results.... The demand for good sound young horses continues; 15 were taken out of the valley last week. Hogs and sheep are closely cleaned up; but cattle are abundant and cheap.

Fresno.

SHEEP AND WOOL.—Huron Cor. Expositor, April 15: The shipments of sheep from Huron for March were 190 cars. As the average per car is 100, it makes the total number of 19,000. We also shipped 133,895 pounds of wool. There were sheared here in Huron 40,000 sheep in the last six weeks. At Dathole, 16 miles west of here, there were sheared 70,000. There are also several other shearing camps near here, and the total number of sheep sheared in this section will be about 165,000.

Inyo.

DISTRICT FAIR.—Independent, April 20: The directors of the 18th District Agricultural Association met at Independence last Saturday. Present: A. R. Conklin, president; John S. Gorman, W. K. Miller, John Shepherd, W. Walker, W. S. Enos and J. C. Irwin, the latter as proxy for N. Rhine. A. R. Conklin was re-elected to serve as president during the current year.... A motion was made to amend the constitution of the association by striking out the words "at the town of Independence." [This is the clause that determines where the fair shall be held from year to year.] After considerable debate, the motion to amend was lost. It was decided to hold the next annual fair on the 1st, 21, 31 and 4th of October. A committee to prepare a premium-list was appointed as follows: A. R. Conklin, W. S. Enos, John Shepherd, W. K. Miller and J. S. Gorman, to report at a meeting of the board to be held June 11th.

WATER IN DISPUTE.—There is trouble at Bishop about water. The Hillside Company is damming lakes to make reservoirs for surplus water. This spring they have been planting large quantities of grapevines, and it is alleged, have been taking water out of Bishop creek for irrigation. The older settlers claim that at this season the stream is low and will not supply more water than they need till later in the season, when the snow melts on the mountains. The settlers went and closed the ditches made by the company and declare that they will not allow water to be taken from the stream until their own wants are supplied. The company alleges that they are not taking water to the injury of the settlers. It is probable that the courts will have to decide between the settlers and the company.... It is very gratifying to note that there is no disposition to resort to violence, but that both parties to the dispute are willing to let the right be established by law. This is creditable to the people of Bishop and neighborhood.

EASTSIDE NOTES.—There is not help enough to be had for planting grapevines along the Eastside canal. Mr. Melver wants to plant 80 acres; he has the cuttings—Seedless Sultan, Muscatel and Flaming Tokay—but is forced to put most of them in a nursery for want of help to plant a vineyard.... Dr. Bishop has a large tract cleared and is seeding for a general crop this season.... The canal will already supply water for several thousand acres. Next spring there will be work going on under the canal for a distance of about 20 miles.... Last Saturday Mr. McIver moved his camp farther south. Fifteen miles of the canal is now built and water running in it.

Kern.

GRAIN HAY AND ALFALFA.—Bakersfield Echo, April 25: W. A. Berry, a Poso Creek farmer, was in town Monday, preparing for harvest. He said he intended to start his mowers in the

alfalfa Tuesday, but would have to take them out by next Monday and begin on the wheat and barley. He has 4000 acres of grain on irrigated land now standing from waist to shoulder high. It will seem strange to many to hear that this is all to be cut for hay when it could hardly fail to make the best of grain. The reason for this mode of harvesting it, that the land was all sown to alfalfa last winter, and if the grain were allowed to stand and ripen it would seriously interfere with the outcome of the young clover. The alfalfa is now up a few inches and needs the sunshine and warmth, neither of which it can enjoy under the present great growth of grain. Besides, hay always brings a good price, and this great yield of grain-hay and the subsequent crops of alfalfa later in the season will constitute handsome returns from the land this year. These 1000 acres of grain will yield from 8000 to 10,000 tons of very fine hay.

IRRIGATION MEETING.—Delano, April 20: A crowd filled the hall this afternoon to proceed with the work of organizing an irrigation district. Delegations from Alila, Poso, and Kimberlin attended and strongly urged the organization of a district. Many local men addressed the assembly and spoke most encouragingly of the enterprise. The proposed district will extend from near the Kern river north to Deer creek, Tulare county, and from the foothills west to the artesian belt, and will contain 150,000 acres. It is located partly in Tulare and partly in Kern county, and will be known as the Kern-Tulare Irrigation district.

Los Angeles.

TEA AND COFFEE GROWING.—Pasadena Star: Mr. Murray, who has been in this city some time investigating the possibility of growing tea and coffee here, has made an experimental planting of these products on M. D. Painter's place in North Pasadena, which he has leased. He has put out both tea and coffee plants and planted the green coffee berry, believing that it will be found possible to grow them in this climate. The experiment will be watched with interest.

Modoc.

TAPPING THE LAKES.—Alturas Independent: Some of the South Fork farmers are taking steps to increase their supply of water for irrigating purposes. G. A. Duke and J. D. Flournoy have just completed a ditch by which they have tapped Blue lake, which lies south of West valley. The ditch is only five rods in length, but by means of it they can put 500 inches more of water into South Fork than that stream has heretofore carried. The ditch was completed last week, and Mr. Duke tells us that they turned in 240 inches and left a man to watch results. He reported that after the water had been flowing for 48 hours, he could not see that the water in the lake had been lowered a particle. The projectors are confident that they can draw 500 inches for four or five months and not lower the lake to the extent of four feet. The ditch mentioned carries the water into Parsnip creek, which empties into South Fork and will be taken from the river at the ranches of the gentlemen named near the town of Likely. We also understand that Geo. E. Williams and Wm. Cantrall are preparing to tap Clear lake, which lies east of Jess valley, by which means they will get a larger flow of water into the natural outlet of the lake. This stream is also a tributary of South Fork.

San Bernardino.

ORANGE TREES FOR AFRICA.—Riverside Press, April 27: Frost & Burgess will ship by express tomorrow a box containing some 50 orange trees of different varieties to Jacob Wrench & Sons, London Bridge, London, Eng. From there the trees will go by freight to their destination, which is Martinsburg, Natal, South Africa. The express charges alone upon the box are \$103.

MORE NAVELS TO COME.—Luther C. Russell, supt. of the Evans ranches, reports that he is now planting 3500 Navel bud orange trees, purchased of Messrs. Frost & Burgess. The trees are being planted in place of vines and apricots that have been cultivated for several years and are now taken out; thus "the survival of the fittest" prevails. He is also planting 40,000 one-year-old seedling orange trees, which will be budded with the Washington Navel for future use, and 10,000 olive cuttings. Up to date 13 carloads of oranges have been shipped from Mr. Evans' home place, and there are several carloads yet to ship.

San Mateo.

SCALE-KILLERS FROM AUSTRALIA.—Redwood Times and Gazette, April 27: B. M. Leloug, sec'y of the State Board of Horticulture, visited San Mateo Wednesday, and with Quarantine Guardian L. D. Morse, domiciled on the Bowie place a colony of Australian ladybugs, recently brought here by Mr. Koebele, an entomologist in the employ of the United States. This bug is said to be a voracious destroyer of the cottony cushion scale, and its propagation in this country will be watched with much interest.

Santa Cruz.

FAIR DATE SET.—Santa Cruz Sentinel, April 20: At a meeting of the Directors of the Agricultural Association Thursday, it was decided to hold the annual fair in this city from Oct. 2d to 5th. The premiums will be larger than at previous fairs, as the entire appropriation of \$2000 from the State will be divided into premiums. No entrance fee will be charged to exhibitors.

Shasta.

MAPLE SUGAR.—Anderson Enterprise, April 25: J. I. Honn of Redding came down from Sunny Hill, a mining camp on the north fork of the Cottonwood, last Monday, and showed us a specimen of maple sugar made by Mr. Loomis, from the sap of native trees in the Sunny Hill district. Not being a critical judge of pure maple sugar, we cannot say that it is equal to the New England product, but its appearance is excellent. From a few trees Mr. Loomis run out a wash-boiler full of sap and boiled it down. The creek in that neighborhood is lined on either side for a long distance with the native tree, and we see no reason why it cannot be propagated and made a source of revenue.

DISTRICT ASSOCIATION.—The Shasta County Board of Trade has called a meeting of citizens of Agricultural District 27, composed of Shasta county only, to meet in Redding Friday, May 3d, to form a District Agricultural Association. Much interest is manifested.

Stanislaus.

IRRIGATION SURVEY.—Modesto News, April 19: Chief Engineer P. Y. Baker, and Assistant Donaldson of the Modesto Irrigation District Survey, have already adopted a location for the proposed dam upon the Tuolumne river at a point about 300 yards above Silva's ferry, and Director Crawford has filed a water-right claim at that point. The dam required will be 400 feet long and an average of 20 feet in height, which will raise the water 20 feet above low-water mark. The location is considered especially suitable as a point of diversion. Several miles of preliminary survey have already been made, and it is believed the preliminary route will be adopted as the permanent line. The route is considered feasible and cheap.

SPECIMENS OF GRAIN.—Modesto News, April 26: We were shown last evening samples of wheat from the ranch of T. D. Converse, four miles south of La Grange. The summer-fallow wheat stands five feet high and Mr. Converse is the happy possessor of 160 acres similar to the sample. The winter-sown is four feet high. The summer-fallow is headed but not in blossom.

WOOL SHIPMENTS.—John Dunn, one of our most prominent shepherds, to-day shipped 36 bales of wool to San Francisco. The price paid was 18½ cents per pound put on the cars at Modesto, or equal to about 20 cents per pound in San Francisco. The wool is of unusually good quality, and commanded the highest price paid for wool reported in this county.... A large quantity of wool is being shipped nearly every day from the Modesto depot. The last shipment was made by Frank M. Frago & Co., and consisted of about 5000 pounds.

Tulare.

THE CULTURE STATION.—Tulare Register, April 19: Prof. Hilgard selected for the culture station, and Mr. B. F. Moore donated, 20 acres of land a little more than one mile southeast of Tulare. A five-board fence has been placed around it, a barn and sheds have been erected, and nearly the whole has been plowed and planted. A house for the use of the superintendent in charge is badly needed.... J. Forrer, the superintendent in charge, commenced work in January. He first plowed the tract 14 inches deep, leveled it, then plowed it to the same depth and harrowed it perfectly. Then the work of planting began. South of the buildings he has 48 different kinds of grains, wheat, barley, rye, etc., besides various kinds of corn, beans and some ramie. Three thousand vines, embracing 68 varieties, have been set out, besides a large quantity of cuttings placed in nursery. There are also 1500 or more fruit trees, apricots, peaches, plums, cherries, walnuts, chestnuts, figs, olives and oranges, a few of each important variety; also gooseberries, currants, cork oaks and a number of ornamental trees and shrubs. A good beginning, certainly.

BAEN BURNED.—Visalia Times, April 25: The large barn on the ranch one mile southwest of town lately the property of Thomas Rochford, but now owned by O. J. Giddings, was destroyed by fire about 3 o'clock Monday afternoon. There was about six tons of hay in the structure, which is also a total loss. The fire apparently started in the harness-room, but from what cause is unknown, as no one had been about that part of the building for weeks. Mr. Giddings estimates his loss at from \$800 to \$1000. There was an insurance of \$500 on the property.

TIMBER CULTURE.—Tipton Cor. Register: One full carload of beautiful gum and acacia trees, accompanied by Mr. John L. Hudson of Berkeley, arrived here to be planted out in San Joaquin valley, west of Tulare lake—all nice and thrifty trees—and if the party succeeds in keeping them alive the first year, they will be a fine sight. They will be used on two timber-culture claims.

Ventura.

NUT CROPS PROMISING.—Ventura Democrat, April 25: There is promise of a full crop of English walnuts this year in Ventura county, and the almonds, also, are flourishing. The latter have nearly got their growth, and the trees are well laden.

Yolo.

AN AQUATIC HOG.—Woodland Mail: A rancher living near the Sacramento river has a two-year-old hog who makes it a daily practice to swim that stream. No matter how strong the current, the hog goes across the river in an almost direct line. Hogs, as a rule, will cut their throats with their hoofs as they swim,

but this amphibious shote does not even touch his throat as he swims. Once on the other side of the river, the animal roots around all day, but always returns to his Yolo county pen at night. One day, some months ago, the hog was crossing the river when a steamer was passing. The rollers caught the porker and threw him about in fine style. He was nearly drowned, and now he will not go within a hundred yards of the river if he sees or hears a steamer approaching.

ARIZONA.

A PROMISING YOUNG ORCHARD.—Tucson Citizen: A. V. Grossetta is making himself one of the finest orchards in this vicinity. It is situated 2½ miles from Tucson, and is already an evidence of the possibilities of the mesa lands surrounding this city. Mr. Grossetta owns 120 acres of land, all of which he intends to bring under cultivation. Last September he commenced the work of fencing 25 acres, digging wells and building his reservoir. Since that time he has sunk two large wells and curved them from top to bottom with two-inch timbers, erected two large Cyclone windmills, built a large reservoir of stone, 6 feet high and 41 feet in diameter, cemented and made perfectly water-tight, cleared 12 acres of ground, planted 500 apricot trees, 100 pears, 250 peaches and 150 apples, plums and quinces, and 25 walnut trees. His wells are 40 feet deep. He has also planted 1100 pounds of potatoes alongside the rows of trees, which are irrigated by the same water that is required by the young sprouts. The trees are all growing without a single exception, and many of them are blooming. The soil of this ranch is a rich, sandy loam, very similar to that of the American bottom on the Mississippi river. The windmills keep the reservoir brimming full, and with a good breeze the entire 12 acres can be irrigated without diminishing the supply. Mr. Grossetta feels sure that with his present water supply he can easily take care of an orchard of 40 acres. Besides 1000 trees, there are 1000 grapevines, also growing rapidly.

STRAY BARLEY.—Tucson Star: M. Holladay, an engineer on the S. P., brought to the Star office last evening a dozen heads of barley which he had pulled up alongside of the railroad track at Aztec station. They had grown up from a few grains of barley which some one had dropped in passing, or while feeding his burro. Some of the heads measure over three inches in length, and are plump and well-filled. The smallest is over two inches. An acre of such barley would yield, perhaps, 60 bushels. This demonstrates that the soil about Aztec station must be good for small grain, as the specimens before us grew out in the open desert without care or irrigation.

NEVADA.

THE CATTLE RANGES.—Gazette and Stockman, April 25: Well-informed cattlemen, like George Russell, Judge Bigelow, John Sparks and Orlando North, say that the situation in their business is not so bad as many people imagine. Mr. Sparks particularly says his range and his cattle never were in better shape. The winter was warm and no cattle died. The calf crop was large and the spring feed excellent. Mr. North says that, while the Little Humboldt that waters Paradise valley is nearly dry, yet summer feed is not bad and his range is not destroyed by any means. Rock creek, which runs through the big ranges of North, Russell & Bradley and Dunphy, has as much water as it had at this time one year or two years ago. Willow creek has plenty of water and good feed. The cattle have not been and are not likely to be moved from the Clover Valley range, where they have run for four years. Mr. Russell informed the Gazette that the Idaho range was in good shape, and they have taken a good many cattle there from the Battle Mountain range, as they do every year, to fatten for the Chicago market. There is still a good deal of feed on their ranges and their losses thus far are light. Judge Bigelow has letters from his foreman that horses and cattle are fat and the range looking as well as ever. * * * Many side valleys, like Clover, Star, Ruby and Lamoille in Elko county, will get more or less hay. The Truckee Meadows have fair prospects, and the feed in the Sierras is as good as it ever was. Lake Tahoe is filling up, and the weather is turning off warm so the alfalfa fairly shoots up.

OREGON.

SORGHUM AND CORN.—Oregonian: A resident of Southern Oregon says that in the days of high freights, before railroads were built, there was a great deal of sorghum raised in the Rogue River valley, and large quantities of molasses manufactured from it for supplying the people of that section, and that it was shipped in quantities to Linkville and towns in that vicinity. Each Walker has quite a mill for pressing sorghum, near Central Point, and there are a number of small private mills in Sam's valley, Applegate and near Grant's Pass, whose owners make sorghum molasses for their own use, and the gentleman who furnished this information states that it is much superior to imported molasses for making gingerbread, and as he has used it for many years, he ought to know. He says further that both sorghum and corn are grown to perfection in Rogue River valley and other valleys in that region.

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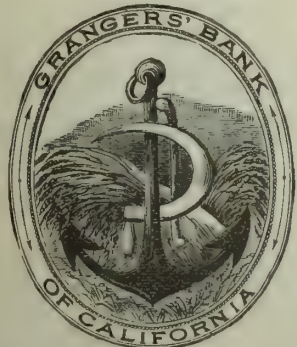
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FLORICULTURE.

The Los Angeles Flower Festival.

[Written for the Rural Press by CLARA S. BROWN.]

The annual flower fête has for some time been recognized as the leading entertainment of the year at Los Angeles and has become as much an institution of the city as the Mardi Gras of New Orleans, or the Ice Carnival of Montreal.

Five years ago the inaugural festival was given as an experiment in the hall of one of the leading hotels. It caught the fancy of the public at once, and was such a complete success both in pecuniary results and prodigality of exhibits that the little band of ladies having it in charge was inspired with courage to attempt a second fair on a scale so grand and noble in proportions that it amazed all beholders.

At that time a large, roughly built tabernacle stood on Main street, where now rise substantial business blocks, and this was the scene of the second festival. It seemed audacious to think of filling and satisfactorily decorating that immense room, and many skeptics predicted failure, but when the exhibition opened a miniature fairyland delighted the throng which crowded to discomfort the shabby building, and for two weeks the lovely display was kept up of such perishable materials, the flowers being repeatedly replenished as they wilted, in apparently inexhaustible abundance. From that time no one doubted the ability of Los Angeles to hold annual floral fetes worth traveling many miles to see, such as are possible only in a country and climate where Nature deals most generously with the products of the soil and permits choice blossoms of untold variety to unfold their delicate leaves fearlessly in the open air at all seasons.

The third, fourth and fifth festivals have been held in a large pavilion—termed the Academy of Music—erected three years ago by the present Mayor, H. T. Hazard, on the corner of Fifth and Olive streets. It is 165x182 feet in dimensions, with a main room 120x166 feet, which has an arched ceiling rising to the height of 57 feet. This room has at one end a large stage, and is surrounded on three sides by two wide galleries. On the floor of the room and throughout the first gallery have been arranged the booths and various designs, and it has been a gigantic undertaking to fill such an amount of space.

The exhibit this year, while grand and amply repaying the spectator for several protracted visits (it is simply impossible to critically view the entire display at one time), is not so large and elaborate on the whole as it was in '88. This is not a Los Angeles city affair alone, but an invitation is extended to all Southern California and Los Angeles county especially to participate, and prizes are offered to the towns which make the best display, furnish the most unique designs and keep their booths in the best order throughout the two weeks of the exhibition. Last year and the year before there was a quite lively competition between Santa Ana, Anaheim, Orange, Santa Monica, Long Beach, Alhambra, San Gabriel and other county towns, but this year only four towns are represented, and those are not the largest and best able to sustain handsome booths of this kind.

Sierra Madre, Duarte, Alhambra and Whittier come bravely to the fore, and are deserving of great credit for their enterprise when older and more populous towns appear to lack the ambition to do what lies in their power to make the festival an advertisement of the beauties of all this southern country.

Some months ago a prize of \$100 was offered for the best design for the decoration and arrangement of the hall, thus securing a number of tasteful plans from which to make a selection. On entering, one first observes a mammoth bell suspended from the lofty center of the ceiling, the inside made of scarlet geraniums, the outside of flowers of many hues. From this radiate ropes of evergreens, drooping to the sides of the hall. High over the stage are worked in gigantic letters of green, "Flower Festival, 1889." The galleries are festooned with evergreens, and the spaces between the columns are arched with cypress, like the walls of some great abbey. Fan-palm leaves between each festoon give a suggestion of the tropics to the scene, which is abetted by the large pots of rare plants and shrubs set here and there upon the floor of the hall.

The first booth, directly at the right of the entrance, is a large square structure like an open observatory, with a broad frieze beneath the high-pointed roof, and supported by four large columns. This is under the auspices of the Los Angeles Philharmonic Society, which is rehearsing the grand oratorio of "The Creation" for performance in May. The booth is encircled by a stout paling of tulips. "Oh, what we read about in 'Ramona'!" I heard more than one enthusiastic visitor from the East say, as she delightedly wished that she might "take home and show to the folks" these and other interesting objects. The top of the paling, three feet in diameter, is filled in with flowers, a mass of marguerites the first time I saw it, choicest roses and a variety of blossoms; on another occasion, in the fashion of all the booths, which are rejuvenated and altered every day or two. The pillars are covered with shaded geraniums, and the frieze (occupying 75 square feet) was also a bright mass of geraniums,

the roof of green, thickly starred with calla lilies. The sentence from "The Creation," "Achieved is the glorious work. The Lord beholds and is well pleased," is wrought in flowers; also the initials "P. S. L. A.," and lyres and other musical instruments adorn the booth.

The registry booth has a parasol canopy, and is trimmed with ivy and hung with baskets of superb flowers.

Next comes the candy booth, striped in red and white, as if built of Broddignagian sticks of candy, decked with magnolia leaves, baskets of flowers, the American eagle in scarlet geranium, and an American flag.

Then comes a striking booth, all in black and gold, presided over by the young lady members of the Omicron Chapter of the Kappa Alpha Theta Society of the University of Southern California. (There are only two Chapters of the society on this coast, the other being at Santa Clara.) It is in the form of a Greek temple, the heavy roof upheld by massive pillars covered with marigolds, and the base of the booth draped in mosaic work of black and gold. Draperies of the same colors, designed in gorgeous yellows, and masses of marigolds and nasturtiums in great variety almost dazzle the eye.

In marked contrast is the booth of wild flowers and grasses that occupies the next place, with its faint, sweet scent of new-mown hay and delicate lilac, pink and white of the field flowers. A large, rustic summer-house is thatched and entwined with grasses and grains. Here are branches of purple chaparral, quantities of lupine, poppies, Mariposa lilies, Canterbury bells, salvias, snowdrops, snap-dragon, Indian paint-brush, the grass flower, rushes, chilicothes, etc. There are, I believe, about 150 varieties of wild flowers in Los Angeles county.

Now the eye rests upon a new picture—the Moorish design used for a boutonniere booth. This has crimson hangings, on which are stars, moons and Oriental characters. Between the folds snowy doves peep out. The canopy is lined with white tulle, and branches of the graceful pepper-tree swing from the edges. Here, for a time, boutonnières are deftly made and bewitchingly dispensed by ladies whose captivating costumes and manners are calculated to extract "change" from the most obdurate of pockets.

At last the right-hand corner of the hall, next the stage, is reached, and here rises Sierra Madre's unique exhibit—a facsimile of Wilson's Peak in the San Gabriel or Sierra Madre range of mountains. This peak has always been a Los Angeles landmark, and has now acquired national prominence, owing to the proposed establishment of an observatory, with a 30-inch telescope, on the summit, from which the scientific world is anticipating items and discoveries of much interest and benefit. A mass covered with moss, ferns and shrubbery, with canyons dotted with wild flowers and ridges similar to those upon the genuine peak, rises to the height of the first gallery. The famous "Wilson's trail" is represented by white marguerites; there is even a donkey with his boy rider descending the winding path. At the top is the proposed observatory with a revolving dome. Carteria and Altamont, the lovely mesa homes of N. C. Carter and Palmer T. Reed, are counterfeited in flowers at the base of the mountain. Below is a mesa of choice roses, marguerites and geraniums, and from the floor all around rise as if from their "native heath" clumps of wild flowers and grasses.

On each side of the stage stand banks of calla lilies six feet wide and 25 feet high.

Beginning at the left of the stage, the first booth is the Kindergarten, imitating a summer-house, with beds of flowers arranged like those of a garden. Adjoining it is a room where kindergarten pupils have their exercises every afternoon.

Near by stands a large windmill, made of all kinds of flowers, which represents the town of Duarte.

The bulbous booth comes next, representing a South Sea island summer-house. It is covered with palms and contains many peculiar blossoms. Among them are the anemones, cosmos, columbine, iris, canna, gladioli, amaryllis, summerchrysanthemum, ixis, vallota purpurea, sparaxis, ranunculus, paeoniatum illyricum, hyacinth, tritonia, ixia, double poppy, babaria, St. John's bread fruit, celtus, urgie rosica, cherimoya, pepina, enormous callas and water-lilies grown by the well-known florist, E. D. Startevant, who quite recently changed his Eastern home for one in the new town of Edgemont, near Los Angeles.

The newspapers of the city are sold in the next booth, which is prettily decorated with flowers and has two great owls perched upon the canopy.

Close beside it stands what many consider the gem of the exhibition—Whittier's beautiful booth. When one considers that two years ago this town of 800 souls was one of many "paper towns" that sprung into existence during the "boom," some of them lingering precariously for a brief period only to ignominiously (and disastrously to some speculators) revert back into "acre property," one is filled with wonder and admiration of the possibilities in this favored part of the world and the energy and activity which has accomplished so much at this festival, in the face of many difficulties. "When we started in to do this," said a bright-faced woman in a Quaker cap to me, "we did not expect to get any prize, but we made up our minds that what was worth doing at all was worth doing well, and did it to advertise a little our part of the country." En

passant, as an instance of what is being done now that people have settled down to thoughts of something besides speculation, this woman has planted on her five acres at Whittier 900 trees and 30 varieties of roses.

This town was laid out in the fall of 1887 and named for the poet, to whom some village lots were presented. Only 18 months ago the mesa upon which the town stands was a grain-field. Now, words fail to describe the beauty and variety of the flowers grown in the homes there. The booth is surmounted by an immense umbrella, the handle concealed by callas and the covering decorated in a variety of ways during the course of the festival. To-day the ribs are garlands of flowers and the inside of the umbrella is brilliant with gilded rubber leaves. A huge Quaker bonnet, now of rose-buds, again of verbenas, and again of marguerites, geraniums, etc., is a conspicuous feature of the booth; also a Quaker hat of corresponding dimensions, which is retrimmed in different flowers. A large butterfly of velvety pansies is a thing of beauty. All around the booth are beds of innumerable roses (the finest collection outside the special rose booth in the hall), besides many other flowers. In the background a large portrait of "the Quaker poet" stands on an easel. All the occupants of the booth are in Quaker costume, and the whole effect is that of great painstaking and loveliness.

Alhambra last year secured the prize for the most original design (a facsimile of the Alhambra palace, as described by Washington Irving), and this year has a beautiful representation of the Garden of Lindaraxa, in the Court of Alhambra. There is a lofty Arabian arch covered with exquisitely shaded and blended roses, over which is a keystone with a hand upon it. On the inside of the arch is a key. There is a legend connected with the hand and key, concerning the treasures supposed to be buried beneath the structure. The interior is filled with tropical plants (among them the sacred palm), rustic seats, etc., and all the archways are neatly decked with flowers and odd designs.

The soda-water booth is draped with cotton and made to imitate blocks of ice, transporting one to Arctic regions. Hat and cloak rooms complete the row upon the left side.

In the center of the hall are two beds of roses in horseshoe shape, which if in a straight line would be sixty feet long. They are separated by a miniature mountain of rocks, mosses and ferns, over which a fountain sprays. I can give no idea of the magnificence of this display of the "Queen of Flowers," all grown in open yards by the humble cottages of the working class as well as in the handsome grounds of the wealthy people. Such a sight is possible only in California. No wonder that tourists hung almost spell-bound over the wondrous coloring and size of the specimens. It is asserted that 200 varieties were sent in from one garden. A partial list may be of interest to rose-lovers:

Mme. Faloot, Malmaison, Mme. C. Guinnesseau, Souvenir de Mme. Pernet, Mme. de Watteville, Southern Belle, Louise de la Rine, Coquette de Lyon, Mme. Cipio Cochet, Mont Blanc, Queen of Bedders, Ma Capucine, Crown Prince, Glorie Lyonnaise, Doctor Berchet, Mme. Bravy, Triomphe du Luxembourg, Mme. L. Fevrier, Mme. Cecile Brunner, Mme. Joseph Schwartz, Mlle. F. Koger, Willermoz, Souvenir de Theresa Levat, Jules Finger, Letty Coles, Bella, Mme. Lambert, Jeannie Abel, Princess Stephanie, Jules La Sau, The President, Cherokee, Devonensis, Pink Moss, Teresa Loth, Celine Forester, Bougers, Pierre Guillet, Gerard Desbois, Isabella Gray, Pierre Statting, Le Nankin, Mme. Welche, General Washington, Alfred Hubert, Mme. Devercourt, Tarsier, Etoile de Lyon, Adolphe, Christophe, Reine Maria Pia, Aurora, Cabbage, Douglas, Pearl d'Or, Mme. Rachel, Pauline Le Bonte, Camelia, Nathalie Imbert, Reve d'Or, Marshal P. Wilder, La Nuance, Marquis de Sienima, Surprise, Mary Fitzwilliam, Countess d'Alme, Vulcan, Estelle Frodel, Black Prince, Her Majesty, La Superba, Empress of Austria, Chesnut, Hybrid, Mme. Brest, Mme. Pauline Labonte, William A. Richardson, Mme. Ducher, Edith Gifford, Mme. Abel Camen, Mme. M. rie Rody, America, Sunset, Mme. Angeleno, Clement Nabouand, Marie Pere, Mme. Berard, White Moss, Rubens, Auguste Mei, Mme. Cusin, Claire Carnot, Duches de Brabant, Baroness Rothschild, Catherine Mermet, Gen. Jacqueminot, Perle des Jardins, Niphetos, Quintine, Marechal Niel, Homer, Agrippina, Lauretta, Beauty of Glazenwood, Cloth of Gold, White Banksia, Yellow Banksia, La Marque, Papa Gontier, American Beauty, Marie Van Houtte, Arch Duke Charles, Souvenir d'un Ami, Soifano Blackberry, Salaferte, Bride, La France, Mme. Camille, Bon Silene, Isabella Sprunt, James Sprunt, Reine Marie Henriette, Giant of Battles, Grand Duke Nicholas, Countess Riza du Park, Mama Gontier, Karoline Custer, Camelia Cook, Chromatella, Anna Olivier, Boyle Heights Novelty.

Upstairs, in the first gallery, is a pink and pansy booth, draped with green and pink, the base of English ivy, to which the choicest pinks and pansies are contributed from all the booths. A popcorn booth has strings of corn simulating a spider's web, and there is a large spider hanging from them.

In a Japanese tea-garden, decorated with palms and other tropical plants in pots, tea is dispensed at all hours. One entire side of the gallery opposite the stage is reserved for an ice-cream parlor, and proves one of the most profitable features of the fair.

On the left is the "lavender booth," where only white and lavender flowers are seen. There are many beautiful designs in heliotropes, lilacs, violets, fleur de luce, lilies, roses, etc., such as a guitar, harp, flag, star, etc.

The lemonade booth is adorned with lemons, limes and rubber leaves. In the corner of the left gallery is a large space devoted to the Women's Exchange, where women's handiwork of all kinds is on exhibition and for sale. The Exchange is conducted at the Young Women's Home, an institution founded from the proceeds of the flower festivals, now on a paying basis. It is doing a good work in aid of women who need money but cannot work outside their homes to obtain it.

A noticeable feature of this grand exhibition

is its entire management by women. The Flower Festival Society is composed entirely of women, all the thousand-and-one prior arrangements are made by women (who shall say their business capacity is inferior to that of men?), all the persons in attendance on the booths and cloak-rooms are women, all the work of decorating and arranging is done by women save that which they are physically unable to do. With the proceeds of the fairs a boarding-home for working women has been purchased and furnished, and several thousand dollars have been given to the Orphans' Home. This year a part of the profits will be used to aid the free Kindergarten school. So the good work goes on.

The attendance is very gratifying. Eight thousand dollars was cleared last year out of the \$15,000 taken in. As the expenses are less this year, while the gross receipts so far have been equally large, a handsome sum will be realized.

L. A., April 22, 1889.

Fearless Threshing Machine.

We call the attention of farmers and threshermen to the advertisement of the celebrated Fearless Threshing Machine, elsewhere in this paper. Unparalleled honors have been bestowed upon this machine, at fairs and exhibitions, State, National and International; and, if universal victory at trials is evidence of superiority, then most assuredly was an ex-President of the New York State Agricultural Society correct, in saying of the Harder Machines, "they are the best ever made." And, as equally good and reliable testimony has been borne times without number, persons desiring to purchase will do well to consult the manufacturer of the Fearless, Minard Harder, Cobleskill, N. Y.

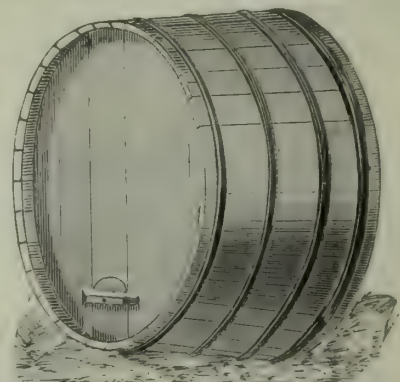
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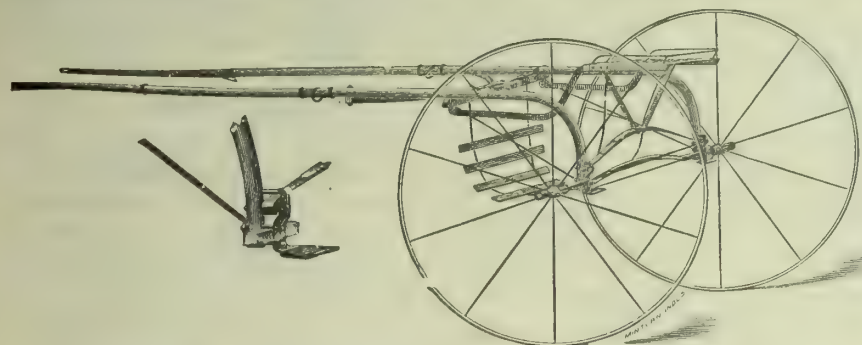
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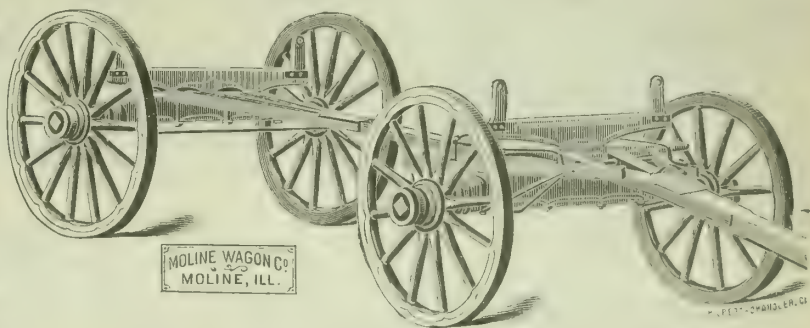
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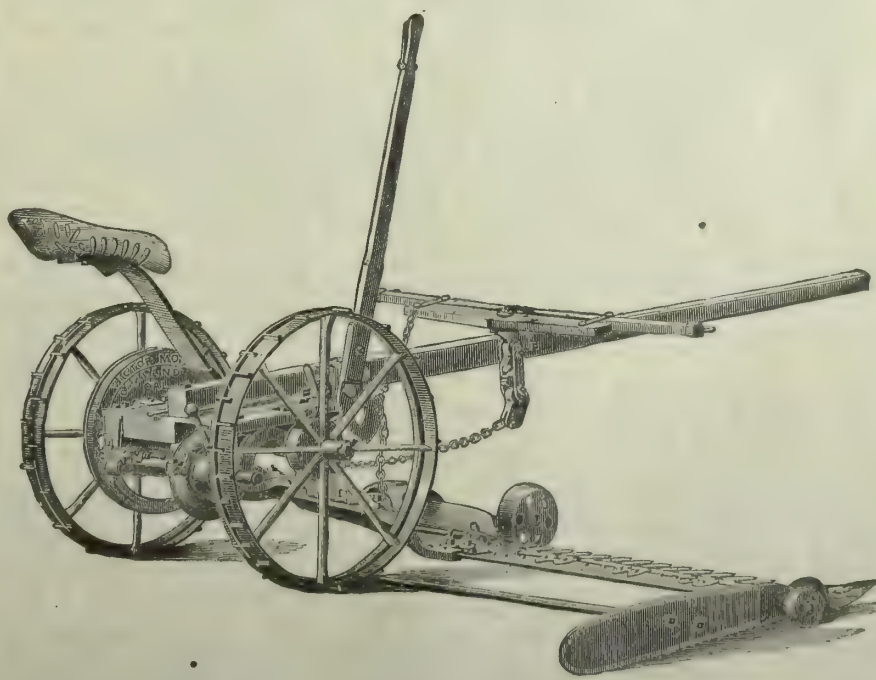
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ENTOMOLOGICAL.

The Fruit-Growers' Convention—No. 2.

Scale Insects and Remedies.

At the second formal session of the Fruit-Growers' Convention at National City, the following essay was read by D. W. Coquillett of Los Angeles:

Any person writing on the subject of injurious insects on this coast is naturally expected to devote a larger portion of his space to a consideration of the scale insects, these being by far the most destructive pests with which our fruit-growers have to contend. Of course, in those localities where apples and pears are largely grown, the production of these fruits is sometimes very seriously interfered with by the depredations of the codlin moth (*carpocapsa pomonella*, Linn); still, as this pest attacks only a comparatively few different kinds of fruits, and does not in the least imperil the life of the trees, its destructiveness is scarcely equal to that wrought by the scale insects, one or more kinds of which attack almost every kind of fruit, nut and ornamental tree grown on this coast, and by directing their attacks against the tree itself, either succeed in killing it outright or at least in reducing its vitality to such an extent as to render the tree more or less unproductive.

Classification and Life History.

The scale insects naturally fall into two groups; in the one group the body of the insect is covered with a shell or scale, while in the other group it is not so covered. The red scale (*aspidiotus aurantii*, Maskell), which attacks citrus trees, and the pernicious scale (*aspidiotus perniciosus*, Comstock), which confines its attacks to deciduous trees, are examples of these kinds which are covered with a shell or scale. The young ones, when first hatched, are provided with six legs and two antennae, or feelers, and quite closely resemble small spiders. After issuing from the eggs they remain several hours, or even days, beneath the parent scale, then start out for themselves, and, after wandering around for a short time, they settle down in some suitable place and insert their beaks into the bark, leaves or fruit, as the case may be, and proceed to imbibe the sap. Their bodies are provided both above and below with a vast number of secretory pores, somewhat resembling the sweat pores on our hands. A few hours after the young scale insect has commenced to imbibe the sap of the tree, there issues from these pores a gummy substance, somewhat like that with which the spider constructs his web or the silkworm its cocoon. The secreting of this gummy substance proceeds quite rapidly, so that at the end of 24 hours the young insect is entirely hidden from view beneath the secretion. The latter, as it hardens, assumes a white, waxy appearance. At the end of several weeks the young scale insect casts off its old skin somewhat as a snake does, a new skin being formed beneath the old one before the latter is cast off; but in this new one no provision has been made for the legs and antennae, so that henceforth these appendages disappear from view during the life of the female insect, although the males regain them again in the adult state. After casting its skin, the secreting of the waxy substance continues forming a shell or scale, both above and below the insect, so that the latter becomes incased between two shells, somewhat as the body of a turtle is; the two shells are not joined together so tightly as to exclude the air, this being quite as essential to these lowly creatures as it is to the higher animals.

After once the young female scale insect settles down she does not afterward change her position, and the only changes that occur is the occasional casting of the skin, until the egg-laying period arrives. Shortly after all her eggs are laid, the female dies a natural death. The males, as intimated above, finally acquire legs, antennae and wings, and somewhat resemble a mosquito, but are very minute, being scarcely discernible with the naked eye.

Of these scale insects, which are never covered over with a shell, the icerya, or cottony cushion scale (*icerya purchasi*, Maskell), and the black scale (*lecanium oleae*, Bernard) are familiar examples. The young black scale is capable of walking about until nearly half grown, after which it settles down permanently and finally deposits eggs, the body shrinking away as the eggs are laid, and the body-walls hardening, so that by the time all the eggs are laid the body is quite hard, and is hollow within, somewhat resembling a small cup inverted over the eggs.

The icerya retains the use of her legs during her entire life, but like the black scale, she settles down permanently before the egg laying period arrives. The eggs are deposited in a mass of a cottony substance, which is secreted from minute pores situated on the underside of the body.

But it is the remedies for the destruction of these pests we are most interested in, so without going further into the life-histories of these pests we will proceed to consider some of the remedies that have been successfully used against them. Among the numerous remedies for the destruction of scale insects that I have tried, two of the most successful are:

Fumigating With Hydrocyanic-Acid Gas Passed through sulphuric acid, and spraying with a solution of resin and caustic soda. In a paper read at the meeting of this board,

held at Santa Barbara one year ago, I gave a brief account of fumigating with the hydrocyanic acid gas, and as this paper has been published in the last report of the board, it will be needless for me to again describe the process here. A fuller account of this process is given in my report on the gas treatment, published in the report of our National Department of Agriculture for the year 1887, and a supplementary report is to be published in the report for 1888.

The principal drawback to the universal adoption of this process—the high price of the chemicals used—has been partially overcome. Mr. E. H. Gilman, who has constructed a fumigator of his own devising, informs me that with the one apparatus he treats on an average 40 trees a day, at an average expense of 65 cents per tree, which includes labor and material. His trees are from 12 to 14 feet high, by the same in diameter. His fumigator is on the same principle as the one first devised by J. W. Wolfskill and Alexander Crow of Los Angeles, except that in Mr. Gilman's fumigator the mast is attached to a turntable, by which device he is able to operate two tents with the one apparatus.

Mr. A. J. Haley, who has charge of the Culver fumigators, informs me that the cost of the materials for treating orange trees 26 feet tall averages about 80 cents per tree, and that he treats trees of this size for \$1 per tree. This reduces the cost of treating trees with this gas fully one-half from the estimate given in my paper read at the Santa Barbara meeting.

Resin Washes.

The resin compound above referred to is a modification of one which Mr. Albert Koebele first used while carrying on a series of experiments for Prof. Riley. I gave a full account of its preparation and use in an article to the *Rural Californian* of Los Angeles; this article was also published in the "Secretary's Portfolio" in the last report of our State Board of Horticulture. Further experiments show that a slightly larger proportion of caustic soda than I have indicated should be used in order to obtain uniform results, since the caustic soda is not always of a uniform strength. The best results will be obtained by using one pound of caustic soda to eight of resin, and this quantity is sufficient to make 32 gallons of wash. It is better to use too much than too little of the caustic soda; in the latter case the oily portion of the resin, which consists largely of the oil of turpentine, will not have become wholly saponified, and as a natural consequence, the spray when thrown upon the tree will dry so rapidly that it will not have the desired effect upon the insect. Several cases of partial failures in the use of this wash have come to my notice, and in nearly every instance the cause was clearly traceable to having used too small a quantity of the caustic soda. Better results will also be obtained by using an iron vessel for preparing the mixture in than if a tin one is used, since a considerable degree of heat is necessary in order to produce perfect saponification. Several of my correspondents have used this wash in the proportions given above, and all those who have expressed an opinion to me in regard to it speak very favorably of it. One fruit-grower, who used it quite extensively on orange trees for ridding them of the black scale, writes me that one day he sprayed several orange trees with it, and had scarcely finished the operation when a high-drying wind arose, and as a result the trees so recently sprayed lost a large proportion of their leaves. That this was the direct result of the drying wind seems very certain, since at previous times when such a wind did not blow he had used the same preparation on a great many of his orange trees without causing them to drop a leaf.

We have yet to learn to temper our tree washes to the varying conditions of wind and weather. It is very evident that when a tree is moist with the dew, fog or rain, it will withstand a stronger application of the wash than it would if very dry; in the latter case the liquid portion of the wash would rapidly be absorbed by the dry dust on the tree, so that a large portion of the more solid portion of the wash would adhere to the tree, whereas if the tree is damp at the time of applying the wash, much of the latter will necessarily run off. On this account it would be advisable to use a stronger wash on trees already moist with the fog or dew than would be used on trees that are very dry.

Cold Water.

The method of washing trees with pure cold water thrown upon them with considerable force is quite effectual when employed against the icerya, and is being quite extensively used at the present time. I first saw it used in Los Angeles in 1885, and in my report to Prof. Riley for that year suggested that the force of the water in dislodging the insects would doubtless break off their beaks, which were firmly imbedded in the bark, thus indirectly causing the death of these insects. Wishing to settle this point definitely, I collected 25 iceryas from beneath an orange tree that had been washed about half an hour previously, and examined them with a compound microscope. All of them were adult females except three, which were in the next stage preceding the adult stage. In 23 out of the 25 examined, the beak had been broken off close up to the tubercle from which it springs, so that not a vestige of it remained, but in the other two, portions of the beak remained equaling about one-fourth of the original length. Of course, all of those iceryas in which the whole or a portion of the beak had been broken off must necessarily

perish of starvation. This method would be still more effective if some kind

Of Viscid Substance

Was to be placed around the trunk of the tree in order to prevent the ascent again of those iceryas that have been dislodged from the tree. One of the best preparations for this purpose known to me is composed of the following ingredients: Resin, 4 ounces; beeswax, 1 ounce; cottonseed, 5 fluid ounces. The resin and beeswax are first melted together, after which the oil is added and the whole thoroughly stirred. When cold, it is ready for use. Some which I applied to the bark of an orange tree saturated the bark for about half an inch on each side of the band where I originally applied it. Owing to this property of the preparation, it is possible that it might prove an injury to the bark. A safer plan would be to first place around the trunk of the tree a bandage of thick building paper, or what is still better, a bandage of sheepskin, placing the wool next to the bark and applying the viscous preparation to the outside of this bandage. One application of this preparation after each washing would doubtless be sufficient, since it remains soft and sticky for about a week after it is applied, and by this time the iceryas on the ground would either have found their way to the tree again or would have wandered off to some other tree or plant. I doubt that method would prove equally effective when used against any of the other kinds of scale insects, especially those which are covered with a protecting shell. We could expect to dislodge these only when first they issue from the eggs, but owing to the fact that at the end of 24 hours after leaving the parent scale they are covered with a waterproof covering, the time during which they could be dislodged from the tree by the use of water alone is confined to a few hours at the most.

The fruit-growers of this coast have been fully aware of the great benefits derived from those insects which habitually

Prey Upon the Injurious Ones.

And at several of the biennial meetings held under the auspices of our State Board of Horticulture, resolutions have been unanimously adopted requesting Congress to appropriate a sufficient sum of money to enable one or more expert entomologists to be sent to foreign countries for the purpose of collecting and importing into this State such insects as habitually prey upon the various kinds of scale insects.

While these resolutions have not been carried out to the letter, the object sought for has been at least partially obtained.

During the recent International Exposition held at Melbourne, Australia, Prof. Riley was enabled to send two of his agents to that country, instructing them, among other things, to collect such insects as they found feeding upon scale insects in Australia, and to forward them to me; my part of the task being to colonize and otherwise care for them after their arrival here.

Among the insects thus received are three kinds which give great promise of very materially lessening the numbers of the iceryas on this coast. These are: A small black and red lady-bug; a large lace-winged fly; and a small two-winged fly. The latter lays its eggs upon the bodies of the iceryas, and the young that hatch from these eggs burrow into the bodies of the iceryas and live there until fully grown, when they contract into cylindrical pupae from which the winged flies finally issue; but before this takes place the infested scale is lifeless.

The two other kinds attack the iceryas somewhat as a cat does a mouse. One of them, the black and red lady-bug, is voracious and will evidently prove more useful than all the others combined.

Assuming that one of the larvae will destroy half a dozen iceryas a day, which is a very low estimate, and that its life as larva is confined to a period of six weeks, it will, during this time, have destroyed over 250 of the iceryas. Then follows a period of about two weeks of life as a pupa, during which time it takes no food, after which the change to the winged beetle takes place, and as the latter also feeds upon the iceryas, as I know from actual observations, the iceryas destroyed by the one insect will be not a little increased over that given above. Fortunately, quite a large series of these lady-bugs have been received alive, and I have been enabled to colonize them, not only upon an orange tree inclosed in a tent at Mr. Wolfskill's, in Los Angeles, but also on several orange trees in the open air, at Colonel Dobbin's, and Mr. Chapin's, in the San Gabriel valley, so that the successful introduction of this important insect into this State seems insured beyond a doubt.

It is to be regretted that no special insect enemies of the other scale insects were also obtained. Of course it is possible that the black and red lady-bug above referred to will attack them, but it is clearly a natural enemy of the iceryas, and therefore would prefer it to any other kind.

In the San Gabriel valley a great many of the red scales (*aspidiotus aurantii*, Maskell) are destroyed by internal parasites. As yet, I have found no trace of them in the Santa Ana valley. May not this account for the fact that the red scale is more destructive in the latter than in the former valley? It has been quite generally supposed that the red scales inhabiting these two valleys belonged to different species, owing mostly to the fact that they are not so destructive in one valley as they are in the other, but the presence or absence of their minute insect enemies would be quite sufficient to account for this difference. Much good

might be accomplished by introducing these enemies of the scales into those localities where they do not already exist.

While it is devoutly to be hoped that these natural enemies of the scale insects will soon increase to such an extent as to be able to keep these pests within due limits, still it would be very unwise for the owners of infected trees to stand idly by and wait for this time to arrive. Active effort should be made by artificial means to subdue these pests wherever they occur, and in the meantime every effort should be made for fostering and disseminating their natural enemies.

Abbot Kinney followed with a dissertation on the "Cottony Scale Bug," and exhibited some pieces of linen which were stained with dye obtained from the white scale and its eggs. During the general discussion which followed, W. W. Motheral of Hanford, Mr. Thomas of Visalia, L. N. Mosher of Santa Clara, Senator Buck of Vacaville, Solano county, J. M. Asher and F. A. Kimball made remarks on the subject, and gave examples of their experiences with scale bugs, and Fruit-Tree Inspector J. P. Jones outlined in a general way what he had found in inspecting the orchards in this county.

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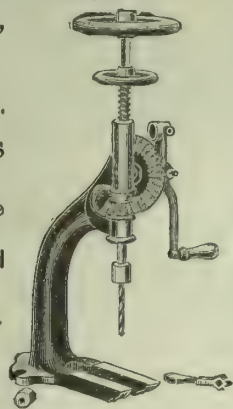
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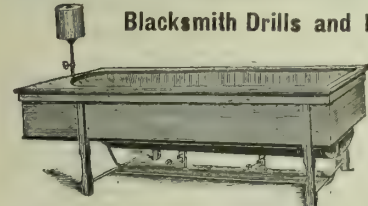
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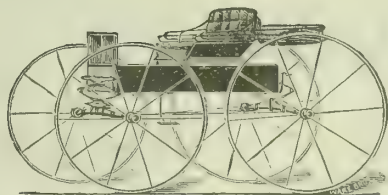
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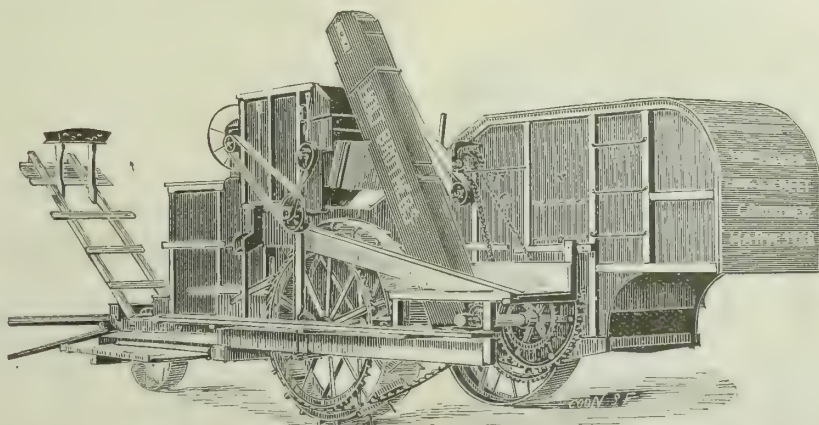
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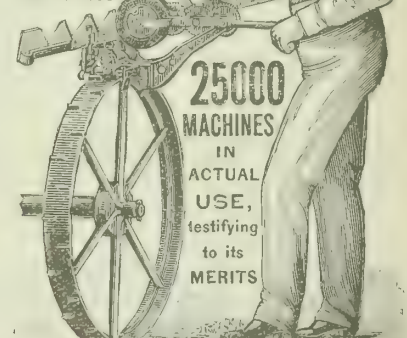
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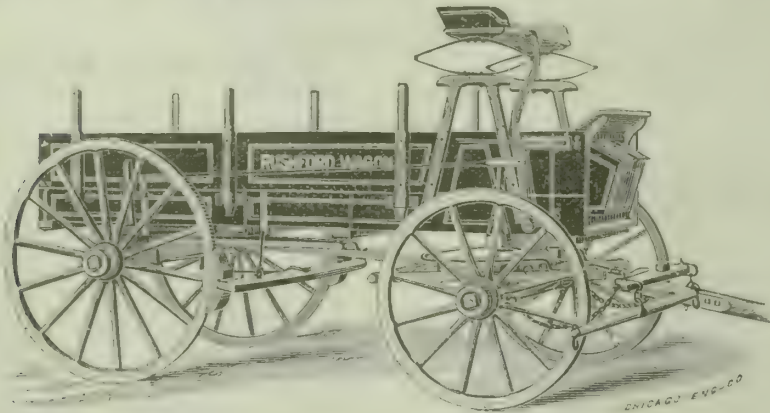
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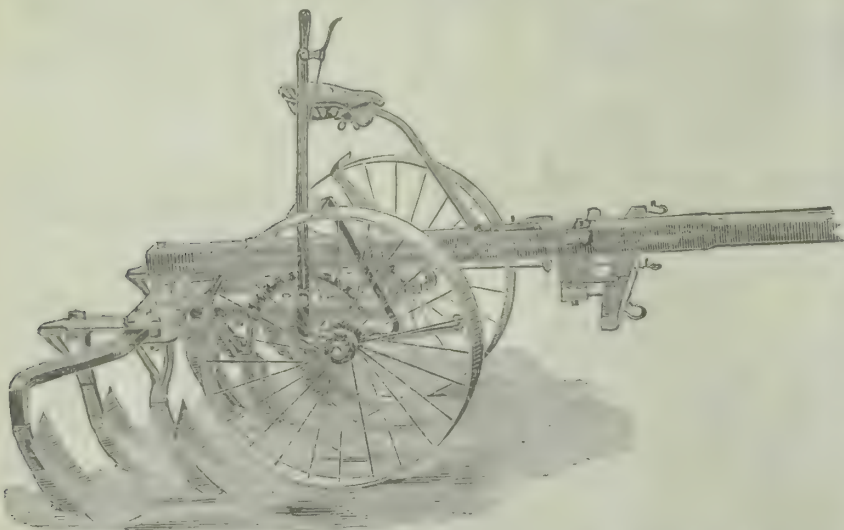
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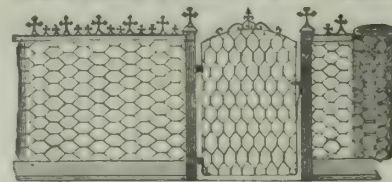


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On account of the death of F. A. BRIGGS, Manager of the Pacific Coast Branch of the Amesbury (Mass.) Carriage Factory, the whole stock of fine light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for sale at less than cost, to settle the estate.

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A practical treatise by T. A. GARRY giving the results of long experience in Southern California. 196 pages, cloth bound. Sent post-paid at reduced price of 75 cts. per copy by DEWEY & CO., Publishers, N. Y.

In Vaca and Pleasant Valleys.

EDITORS PRESS:—I took a ride to-day from Vacaville to Winters—12 miles—and back through Pleasant valley. About half the way lies over poor land on which the crops of hay and grain are very short. Haying is pretty well under way on the plains. On Putah Creek the grain crop is heavy. In Vaca and Pleasant valleys there will be about half a crop of peaches and apricots. Of cherries, if it were anywhere but in Vacaville, we would say the crop was a failure; as it is, the crop is very light. One large orchard here two years ago employed 150 men to pick cherries; last season 100 did the work; this year 30 will probably be enough.

Quite a number of Winter Nelis pear trees in Vaca and Pleasant valleys have been cut off and grafted to Bartlett's. The larvae of

The Saw-Fly,

Small green caterpillars, have been working on the pear trees very badly from here to Putah Creek, in some places stripping nearly all the leaves from the trees. Some have sprayed, and some have put tar on the trees to keep the worms from crawling up the trunk.

Mr. Brink made some small circus rings around his trees, and piled the dirt that was dug out close around the tree, making a little hill, on which, I suppose, the worms break their necks trying to climb, as his trees seem not to be eaten by them. The season for the worms is now about over, and I presume they will hatch out in the shape of some other pest.

Several have had their men thinning peaches, but the job is a light one this year.

The great land sale of McMahan & Yount which came off on the 20th was a failure. The tract is very hilly and rough, and nobody wants to buy such land when there is plenty of good level ground for sale. Two years ago, in some of the orchards in Pleasant valley, some of the

Peach Trees Turned Yellow

Soon after they began to leaf out and made but little growth. They seemed too much alive to dig up and too dead to leave. Various causes were assigned for the trees being sick. Mr. Thissell, who had some of these invalids, thought it was caused by lack of nourishment in the soil, so last fall he hauled on to eight acres 100 loads of sheep manure; this year his trees are making a fine growth and have a fair crop of peaches on them. G.

Vacaville, April 28th.

HAS HAD LEGISLATURE ENOUGH.—It had been stated upon fair authority that, in case the Supreme Court decides against the Act passed by the last Legislature, in regard to the charters of Oakland, Los Angeles and San Diego, these cities will petition the Governor for an extra session of the Legislature. A reporter interviewed Private Secretary Boruck yesterday on the subject, and the latter said it could be authoritatively stated that nothing less than pestilence, war or famine would induce the Governor to call an extra session.—Record-Union, April 26th.

THE WOODBRIDGE CANAL & IRRIGATION CO. has incorporated for the purpose of acquiring water-rights and privileges on the Mokelumne river at Woodbridge, San Joaquin county, and on other streams in San Joaquin, Calaveras, Amador and Alpine counties, and to distribute water for irrigation, domestic use, and mining business. Directors—M. V. B. Watson and Benj. A. Laws of S. F., Wm. E. Green of Oakland, Byron D. Beckwith of Woodbridge, and Thos. Creighton of Visalia. Capital stock, \$300,000, divided into 300,000 shares, of which 70 have been subscribed.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

SERICULTURAL.—The Chronicle is informed that the officers of the Government experimental silk culture station will for the next two years carry on the work of the State Board of Silk Culture, which will be out of funds after July 1st. Cocoons will be purchased at the station from those engaged in sericulture, and the filature in the Flood building will be kept in operation.

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A Camera with which any one, without previous knowledge of photography, can make excellent pictures. Photography reduced to three motions—point the camera, press the button, turn the key—and the rest will be done for you at the San Francisco Agency, unless you prefer to do it yourself. Weight of Camera, loaded for 100 pictures, 26 ounces. Enclosed in sole leather carrying case with shoulder strap and is no larger than a field glass. Price, complete, \$25. Reloading for 100 pictures only \$2. The Kodak will photograph anything, still or moving, indoors or out, and can be brought into use without a moment's notice, as no tripod is required and it is not necessary to focus. Call and see the instrument or send 2 cents in stamps with request for Kodak "Primer" with sample photograph.



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California Products at Chicago.

CHICAGO, May 1.—Oranges were selling about steady. California rule quiet, but other oranges are in fair request.

Prices were as follows: California Riverside, \$2.75@3; do, undesirable sizes, \$2.25@2.50; California San Gabriel, \$1.75@2; California Duarte, \$2@2.50; California Los Angeles, \$1.50@2; California Navels (Washingtons), \$4.50; do, Navels, other kinds, \$2.75@3.50.

California Dried Fruits—Prunes and apricots enjoy a good trade, but all other lines are ruling dull and slow. We quote:

Apricots—Evaporated, bleached, bxs, \$9@10½c; do, sun-dried, according to quality, 6@8c; do, in sacks, 6@8c. Peaches—Evaporated, bleached, unpeeled, boxes, 8½@9¼c; do, sun-dried, sks, 6½@7½c; do, not bleached, 5½@6c; do, peeled, bxs, 10@12c; sks, 10@10½c; do, evaporated, bxs, 12@13c. Nectarines—White, evaporated, bleached, bxs, 7@8c; do, sun-dried, sks, 6@7c; do, red, evaporated, bleached, bxs, 6c; do, sun-dried, sks, 4@5c. Plums—New, pitted, sacks, 6½@7c; unpitted, 4@7c. Prunes, according to size and dry, in sks, 5@8c; damp, 3@4c; Silver, 10@12½c; Hungarian, sks, 3@5c.

Raisins—Loose Muscatels, new, \$1.15@1.25; do, London layers, new, \$1.65@2.25.

Hops met with moderate inquiry, and stocks, which are small, are receiving no additions, for receipts are exceedingly small. Holders are firm in their views. The prices current are as follows: Choice Washington Territory and Oregon, 23@24c \$ lb.; Pacific Coast, good to choice, 20@22c; do, medium and ordinary, 17@19c.

In beans to-day little was done. There was no business yesterday and the mails were somewhat crowded so as to make deliveries rather late. Holders were asking former prices. There is a moderate stock on hand, but present arrivals were meager, quotable: California Lima beans, 5½@5½c \$ lb.

THE SUTTER COUNTY ORCHARD CO. has incorporated with Isidor Jacobs, Henry Jacobs, Emanuel Straus, Joseph Durney and Edward Lande as directors. Capital stock, \$300,000, divided into 3000 shares, of which Jacobs subscribes for 2980 and the other directors the remainder.

Inducements to Subscribers.

To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, to those who pay fully one year in advance of date, if requested the following articles (while this notice continues), at the very greatly reduced figures named at the right:

- 1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price \$1).....\$0.25
- 2.—Beautiful Poetic Review, entertaining and instructive; 35 pages (a handsome and pleasing present).....25
- 3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gilt.....50
- 4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 120 pages, illustrated.....25
- 5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations.....05
- 6.—To New Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new".....Free
- 7.—Any of Harper's, Frank Leslie's and most other first-class U. S. periodicals, 15 per ct. off regular rates.
- 8.—Pacific Coast and Eastern Dailies and Periodicals, except special publications, we can usually give 10 to 15 per cent off advertised retail rates.
- 10.—March of Empire, by Mallie Stafford.....25
- 11.—Life Among the Apaches, 322 pages, stiff cloth.....25
- 12.—\$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application.....25
- 14.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.).....25
- 15.—European Vines Described, 63 pages.....05
- 19.—Webster's Dictionary, 634 pages, with 1500 illustrations; very handy and reliable.....50
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- 26.—How to Tell the Age of a Horse.....05
- 27.—Percheron Stud Book—French—bound in leather, 192 pages (full price, \$3).....1.00
- 28.—What Every One Should Know; a cyclopedia of valuable information; 510 pp.; cloth; (full price \$1).....50
- 29.—Knitting and Crochet, by Jennie June; 144 pp., 200 illustrations.....25
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- 31.—Ladies' Fancy Work, by Jennie June; 152 pp., 700 illustrations.....25
- 32.—The Way to do Magic; illustrated, 60 pp.....10
- 33.—The Taxidermist's Manual; illustrated, 64 pp.....10
- 34.—A Dictionary of American Politics; comprising accounts of political parties, measures and men, and explanations of the Constitution, divisions and practical workings of the Government, together with political phrases, familiar names of persons and places, noteworthy sayings, etc., by Everit Brown and Albert Strauss. (Full price \$1).....50

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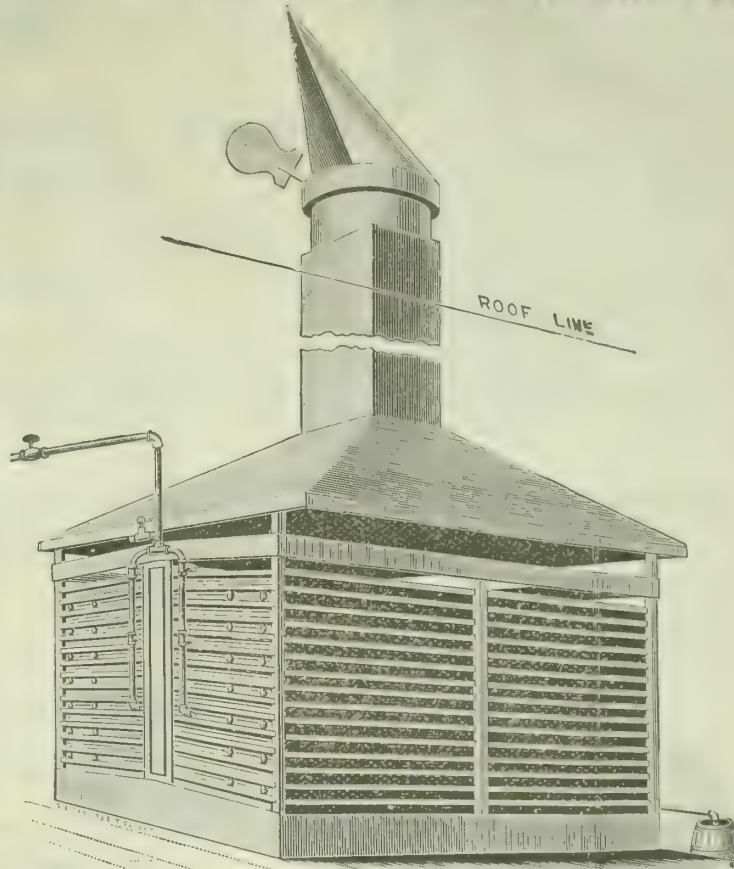
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No moving of Trays after Fruit enters the machine. Any temperature desired can be maintained uniformly throughout the entire machine. We can yield a heavier product, at less expense for fuel and labor, than is done by any other system.

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ZIMMERMAN FRUIT EVAPORATOR.

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FOR 1889.

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Should consult DEWEY & CO. AMERICAN AND FOREIGN PATENT SOLICITORS, for obtaining Patents and Caveats. Established in 1890. Their long experience as journalists and large practice as Patent attorneys enables them to offer Pacific Coast Inventors far better service than they can obtain elsewhere. Send for free circulars of information. Office of the MINING AND SCIENTIFIC PRESS and PACIFIC RURAL PRESS, No. 220 Market St., San Francisco Elevator, 12 Front St.

Breeders' Directory.

Six lines or less in this Directory at 50c per line per month.

HORSES AND CATTLE.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

H. P. MOHR, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

H. S. SARGENT, Stockton, importer and breeder of registered Jersey Cattle. Correspondence solicited.

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENMAN & McNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton), Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Shorthorns & Herefords, Wildflower Farm, Fresno or Sacto.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm, Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKELEY, Sacramento, breeder of Norman, Percheron Horses and thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Percheron-Norman and French Coach Horses.

M. D. BOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER Saxe & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

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J. B. HOYT, Bird's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

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Trotting Bred Stallions, Mares and Geldings

—AT—

Bay District Track

ON WEDNESDAY, MAY 15, 1889.

Selections will be offered from Breeding Farms of M. SALSURY, M. W. HICKS, F. H. BURKE, MRS. SILAS SKINNER and other noted breeders.

Entries will close April 1st. Only pedigreed stock will be received. Apply to

KILLIP & CO., Auctioneers,
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GRAND CATTLE SALE!

GALLOWAY, POLLED ABERDEEN ANGUS, DEVON and DURHAM CATTLE,



To be sold by order of the Executor of the late

SETH COOK,

At 11 o'clock A. M., at the

Bay District Track, San Francisco,

—ON—

THURSDAY, MAY 16, 1889.

The sale will comprise imported Bulls and Cows and their produce. This is the most superior lot of cattle yet offered for sale in California, and should command the attention of breeders throughout the Coast.

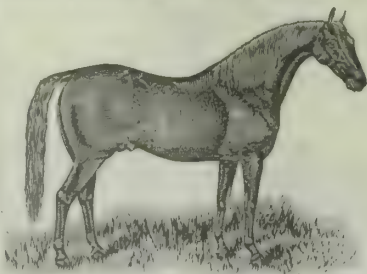
Catalogues will be ready Saturday, April 13th.

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THOROUGHbred RECORDED

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For information address or call on S. N. Straupe as above. No trouble to show stock to intending purchasers.

SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with record's better than 2:30, and the dams of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:26) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp Emancipation. Third dam by Bertrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 6-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbridge, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son of Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Ryadyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Ramboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:13, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:06, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, 6th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:37), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.

Vol. 1, American C. B. S. R.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportsman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" cases, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire beating 20 others.

First dam Whalebone (355), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16 1/2 hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 24; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Midleton in Tipperary, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

The Standard Bred and Cleveland Bay Stallions

Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

PASTURAGE, \$4 per month; Hay and Grain, \$10. Best care taken, but no liability assumed for accidents or escapes.

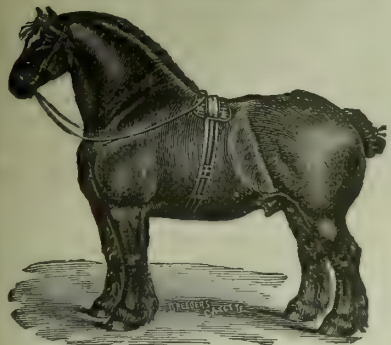
Mares sent to Fashion Stables, Oakland, Bennett's Stables, Martinez, or to Geary & Grindle's Stables, Haywards, will be forwarded to Farm free of Charge.

Address:

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DANVILLE, CAL.

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"ROYAL TOPSMAN," Just Imported,

Five years old, over 1800 pounds, sound and kind, good action, well bred and a first-class horse for breeding.

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Two Imported Shire Stallions for Sale.

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428 California Street, San Francisco, Cal.

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THE SOUTHER FARM,

One and a half miles northeast of San Leandro, Alameda County, has every facility for Breaking Colts properly. Rates very reasonable. Horses boarded at all times.

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SHETLAND PONIES,

36 to 40 inches high, with grand action.

REGISTERED SUSSEX BEEF CATTLE.

Rivals of the Shorthorns and Herefords.

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The Brittany is universally considered the Cow par excellence for the Dairy.

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Which will produce Twin Lambs twice yearly.

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I offer for sale at my ranch, on Clear Lake, near Lakeport, pure-bred Percheron Mares and Horses of the choicest families. Pedigrees recorded in the Percheron Stud Book of France and America. They are principally the Brilliant, Caesar strains of blood. Address

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Also FRESH GRADE MILCH COWS, Farming Machinery, Wagons, Harness, Mowers and

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At 1 P. M. Conveyance to and from Station on Day of Sale.

This is the most important Auction Sale of the season, as the Stock offered is some of the finest in the State, and the variety is of such a nature that no Breeder or Farmer can afford to miss this opportunity.

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Residence—331 Golden Gate Avenue, San Francisco.

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ATTENTION!



ADMINISTRATOR'S SALE

By order of Probate Court, in the matter of the Estate of JAMES ROBERTS, Deceased.

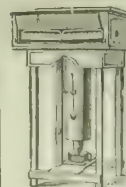
I will sell at private sale to the highest bidder, for cash, on or after May 1, 1889, at the Ranch in Irvington, or at my office in Oakland, 946 Broadway, Alameda Co., Cal., the entire flock of Thoroughbred French Merino Sheep, consisting of 280 (Two hundred and eighty) Ewes, 79 (seventy-nine) Bucks, and 180 (one hundred and eighty) Lambs. These Sheep are the get of the original flock imported by Robert Blacow of Centerville. Mr. Roberts, as foreman, having charge of the flock for several years prior to Mr. Blacow's death, after which he became the owner of the entire flock, which he has kept purely for stock purposes.

All interested in Thoroughbred Sheep should be familiar with this flock, which has become famous under the care and management of Mr. Roberts; always receiving first premiums, having been sold to Europe, South America and all parts of the United States; individual members having repeatedly sold for from \$500 (five hundred) to \$1500 (fifteen hundred) each. Sheep Men should seize this opportunity to secure some, as they must be sold to settle up the Estate. Address, JAMES STANLEY, Administrator Estate J. Roberts, Deceased, Mission San Jose, or 946 Broadway, Room 17, Oakland, Cal.

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Large lot of young birds ready for sale. Send for Circulars.

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Rare opportunity—800-Egg Incubator for sale at half price. Self-regulating, with alarm attachment. Perfect Ventilation, continuous application of moisture, and eggs turned in two minutes, without touching them with the hand, and no watching required night or day. Only 15 minutes required to do entire work of machine. Also one of 200-Egg capacity, of same make. B. F. WELLINGTON, Importer and dealer in Seed, Proprietor of the Improved Egg Food, and Agent for Excelsior Ground Bone. 425 Washington St., S. F.



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Have taken the First Premiums at the State Fair for the last three years.

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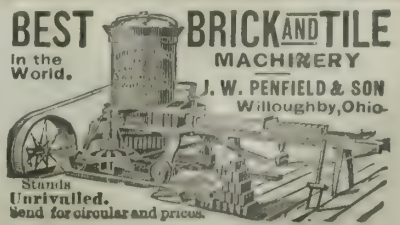
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DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 1, 1889.

General trade, the past week, in both farm products and garden truck was fairly active, with prices showing slight fluctuations. Hot weather the forepart of the week under review brought the usual number of croakers in the field prophesying dire calamity to many of the crops, cereals particularly, but cooler weather the latter part of the week has changed to some extent the views of croakers. Many believe that with it going out that our crop is seriously threatened, ships will not head this way and consequently charters would rule high. Wheat has been quite strong the world over the past week, with more business reported. The following is to-day's cable:

LIVERPOOL, May 1.—Wheat—Firmly held. California spot lots, 65 to 75 1/4 d; off coast, 35s 3d; just shipped, 35s; nearly due, 35s 3d; cargoes off coast, quiet but steady; on passage, Russian firm and American quiet; Mark Lane wheat, not much demand; English country markets, steady; French, quiet; wheat and flour in Paris, steady.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	Apr.	May.	June.	July.	Aug.	Sept.
Thursday....	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2
Friday.....	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2
Saturday....	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2
Monday.....	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2
Tuesday....	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2	76 1/2

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday....	35 3/4	35 3/4	35 3/4	Steadier.
Friday.....	35 3/4	35 3/4	35 3/4	Advancing.
Saturday....	35 3/4	35 3/4	35 3/4	Strong.
Monday.....	35 3/4	35 3/4	35 3/4	Held in g'r.
Tuesday....	35 3/4	35 3/4	35 3/4	Quiet.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

	May.	June.	July.	Aug.
Thursday....	80 1/2	80 1/2	80 1/2	80 1/2
Friday.....	80 1/2	80 1/2	80 1/2	80 1/2
Saturday....	80 1/2	80 1/2	80 1/2	80 1/2
Monday.....	80 1/2	80 1/2	80 1/2	80 1/2
Tuesday....	80 1/2	80 1/2	80 1/2	80 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

	Apr.	May.	June.	July.
Thursday....	80 1/2	80 1/2	80 1/2	80 1/2
Friday.....	80 1/2	80 1/2	80 1/2	80 1/2
Saturday....	80 1/2	80 1/2	80 1/2	80 1/2
Monday.....	80 1/2	80 1/2	80 1/2	80 1/2
Tuesday....	80 1/2	80 1/2	80 1/2	80 1/2

CHICAGO, May 1.—Wheat—81 1/2 c for cash, 81 1/2 c for May, 82 1/2 c for June and 79 1/2 c for July.

Foreign Grain Review.

LONDON, April 29.—The *Mark Lane Express*, in weekly review of the British grain trade, says: There has been an increased demand for English wheats and prices have advanced 6d. The sales of English wheat during the past week were 51,101 quarters at 29s 10d, against 49,852 quarters at 30s 7d during the corresponding week of last year. The tone of foreign wheat has improved, despite large arrivals of white. At to-day's market the values of English wheat were maintained. Foreign wheats were 6d cheaper for California, while other American, Australian, and Russian wheats were rather dearer. Flour, corn and oats were weaker. Barley was lower.

Weather and Crops.

WASHINGTON, April 27.—The weather and crop bulletin for the week ending April 27 says: In all the States west of the Mississippi from the Gulf northward to Minnesota and Dakota the weather was favorable for all crops and fruits, which are reported in splendid condition, and corn-planting is progressing rapidly. The deficiency in the rainfall from Kentucky northward to Michigan has retarded the growth of crops, which are greatly in need of rain.

Eastern Wool Markets.

NEW YORK, April 29.—The *Wool* says: Wool is dull but steady in all important markets. There is rather more strength at the West than on the seaboard. Comparatively small amounts are taken from day to day by manufacturers, while on the other hand holders are not pushing sales. There is no change in the price-making elements of the situation in the country. Growers and dealers show a buoyant spirit, as is customary at this season. Sales to some extent at a high range of prices are reported from Texas and California. The quality of the coming clip is everywhere pronounced excellent.

Little business is in progress at Boston, where, however, prices are well sustained on account of the small amount of desirable wool on hand. Very little is doing in fine fleeces, and choice selections go at 34c lb. Delaine and combing wools are in short supply and dull. Recent arrivals of Australian supplies have been relatively large, but actual transactions have been mostly in the way of deliveries on former orders. Carpet wool is selling about as well as anything. Prices are: Ohio and Pennsylvania fleeces, X and XX, 32@33c lb; do, XX and above, 32@34c; Michigan X fleeces, 30@31c; Ohio delaine, 35@36c; No. 1 combing, 38@39c; Texas Spring, 12 months, 20@23. Sales of the week at Boston are reported at 1,640,000 lbs. against 1,399,000 lbs. last week, and 2,371,700 lbs. in the corresponding week a year ago.

At Philadelphia wool is dull. Dealers are closing out odds and ends of old stocks at concessions, but desirable grades of old clips are generally held with confidence, owing to indications of a comparatively high market for new wools in the country. A few sales have been made this week to go to Western mills, which have run short of supplies of unwashed wool here.

BOSTON, April 25.—The wool market during the past week has continued almost featureless, there

being perhaps a little more inquiry, but nothing noticeable in the way of sales or actual business. No wool is pressing for sale, and on the other hand manufacturers, being well stocked, are slow and conservative buyers. The position of the woolen-goods trade in many sections is reported very poor and has a most depressing effect on the market. In New York State quite a number of orders have been canceled, as well as deliveries rejected, while reports from all sides indicate heavy stocks of manufactured goods on hand and light sales or orders. In California wools there is comparatively nothing doing, while the quotations from San Francisco excite anything but a desire to buy among the dealers or manufacturers here. The supply of Oregon continues light, with no change in prices. Taken altogether, business is far from satisfactory, and at present the outlook shows no prospect for improvement.

Miscellaneous.

NEW YORK, April 28.—The strong position of hops is unvaried. Exporters in instances pay extremes. There is a steady brewers' movement at 15 @18c. A fine parcel of Washington brought 21 1/2 @. Considerable quantities are going abroad, from previous purchasers, State new, 15@23c; Pacific, 13@22c; olds about the late range.

Hides are weak. Tanners hold back, expecting concessions on account of accumulating supplies. Best grade of California here, 15 1/2 c; Central America, 15c; other descriptions unchanged. California prunes were in fair demand, but a shade easier, competing with French.

Raisins were firm for best, in a small way. For common, buyers almost dictate prices. Eight thousand five hundred boxes of low grade were consumed at the Rassiter & Skidmore warehouse fire. No other California products were lost.

Peaches are all nominal.

Limas, \$3.15, strong.

Local Markets.

	S. S.	B. S.	B. '89.	'S. '89.	Dec.
Thursday....	137 1/2	137 1/2	137 1/2	137 1/2	137 1/2
Friday.....	137 1/2	137 1/2	137 1/2	137 1/2	137 1/2
Saturday....	137 1/2	137 1/2	137 1/2	137 1/2	137 1/2
Monday.....	137 1/2	137 1/2	137 1/2	137 1/2	137 1/2
Tuesday....	137 1/2	137 1/2	137 1/2	137 1/2	137 1/2

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday....	67 1/2	67 1/2	82 1/2
Friday.....	67 1/2	67 1/2	82 1/2
Saturday....	67 1/2	67 1/2	82 1/2
Monday.....	67 1/2	67 1/2	82 1/2
Tuesday....	67 1/2	67 1/2	82 1/2

BAGS—It looks as if the bag-rings is trying to force prices to a still higher range. The demand is good, but buyers are not disposed to bid up. The following are the quotations for Calcuttas: Spot 8c, June 8 1/2 c, July 8 1/2 c, with small parcels selling at a slight advance.

BARLEY—The stock in the city at the close of the month was 33,399 tons against 37,017 on April 1st. The market is steady, with a firm tone for sample parcels. Trading on Call is light; much reported is said to be cross orders so as to keep prices down. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—400 tons, 82 1/2 c; 200, 82 1/2 c; 100, 82 1/2 c; 100, 82 1/2 c. Buyer season—200 tons, 67 1/2 c; 200, 67 1/2 c; 300, 67c lb cwt. Afternoon Session: Buyer 1889—100 tons, 82 1/2 c; 200, 82 1/2 c lb cwt.

BUTTER—Choice, gilt-edged butter finds a ready market at quotations for both packing and home trade. Other grades are easy. The packing promises to be very heavy, which with heavy supplies of creamery from the Central States will probably keep values from going to good profitable figures next winter.

EGGS—With continued free receipts of Californian and Eastern the market is still in consumers' favor.

FLOUR—The market is fairly steady at the recent decline.

WHEAT—The stock in this city and at Port Costa was reduced the past month 19,338 tons, being on April 30th 27,548 tons against 46,886 tons on April 1st. The market has shown a very fair degree of activity considering the very light available supply to draw from. Values have ruled somewhat higher, with a stronger tone throughout the week. Trading on Call the past week was only fair, with much of that reported said to have been cross orders so as to keep prices down. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—100 tons, \$1.37 1/2; 1300, \$1.37 1/2. Buyer 1889, after August 1st—400 tons, \$1.33 1/2. Seller 1889, new—100 tons, \$1.27. Buyer season—100 tons, \$1.34 1/2; 100, \$1.34 1/2 lb cwt. Afternoon Session: Buyer 1889—300 tons, \$1.37 1/2; 100, \$1.37 1/2. Seller 1889, new—300 tons, \$1.27; 100, \$1.27 1/2 lb cwt.

[COMMUNICATED.]

Market Information.

Produce Receipts

Receipts of produce at this port the past week were as follows:

Flour, qr. sks....	40,597	Middlings, sks....	5,582
Wheat, cts....	91,217	Alfalfa, "....	50
Barley, "....	13,258	Chicory, "....	50
Rye, "....	1,154	Broomcorn, bds....	—
Oats, "....	9,376	Hops, bls....	13
Corn, "....	4,494	Wool, "....	4,111
Butter, "....	1,692	Hay, tons....	1,345
do bxs....	87	Straw, "....	49
Cheese, cts....	796	Wine, gals....	174 750
do bxs....	110	Brandy, "....	1,704
Eggs, doz....	168,840	Raisins, bxs....	65
Beans, cts....	6,448	Honey, cs....	23
Potatoes, sks....	14,758	Walnuts, sks....	3
Onions, "....	1,133	Flaxseed, sks....	2,004
Bran, sks....	11,640	Mustard, sks....	—
Buckwheat, sks....	—	—	—

Fruit.

Receipts of strawberries the past week were heavy, but prices were well maintained, owing to a free demand. The receipts of raspberries were only fair—some days free and others very light. Cherries

are coming in more freely, causing a shrinkage in values.

Crop advices are good so far as berries and cherries are concerned; but apricots, prunes and plums will be light, yet an increase in the number of trees that will come into bearing will to some extent offset the shortage to the tree. The quality will be good. Peach trees have the curl leaf.

It is to be regretted that canned fruit men do not see their way clear to get rid of their surplus, owing to the high overland freight rates. It is now being quite positively asserted that the Southern Pacific Railroad stands in the way of a lower tariff. With high prices for tinplate, high overland freights and high prices for sugar, canners will not be apt to put up much fruit this year.

In dried fruits the market does not show any material change. It now looks as if larger quantities of fruit will be dried the coming season than ever before.

The raisin market shows considerable firmness for all grades, with the more choice scarce and well held.

The receipts of oranges continue very heavy, largely in excess of trade requirements, without concessions being offered to induce increased consumption. Limes and lemons move off fairly well.

At to-day's, Wednesday's, market fruits of all kinds under free receipts were lower. Strawberries ranged from \$4 to \$8. Cherries had quite a drop, with still lower prices looked for. Oranges are coming in in bad order, making it very difficult to place consignments. Choice selected good keepers are in good demand at full prices.

Cereals.

The Chicago Farmers' Review of April 22d gives the following corn returns:

State.	Crop.	On hand April 1st.
Ohio.....	130,869,992	39,260,997
Indiana.....	159,543,943	51,053,704
Illinois.....	285,503,470	95,636,283
Iowa.....	306,843,713	107,395,299
Missouri.....	237,563,568	64,142,163
Kansas.....	183,299,623	37,552,013
Nebraska.....	151,591,479	45,477,442
Totals.....	1,455,184,858	440,517,962

The above shows that the 1888 crop in the hands of farmers on April 1, 1889, is quite light, being only about 30 per cent of the total output.

Wheat, the past week, has gained in strength the world over. The firmer tone, no doubt, is due, to some extent, to the weather scare, but the fact cannot be denied that the bullish condition of the market is founded on more good substantial grounds than the weather scare. The low price of wheat the world over created a larger consumption, and, as a rule, lessened the acreage seeded to the cereal, consequently the incoming season will be entered with a lighter stock the world over than ever before known, while, even with average crops, the output will not be more, if as much, as that of 1888. Well knowing this, wheat speculators are doing their utmost to keep values down so as to enter the next crop season with low prices. So far they have been quite successful in not only breaking values, but keeping the market from reacting much in the face of the statistical position being in sellers' favor. In this State the supply of available wheat is very light, much more so than for several years past. From all present advices it is safe to claim that we will enter the season of 1889-90 with a stock very nearly cleaned up, barely sufficient to meet Call Board purposes. Transactions in actual wheat, the past week, were quite free, considering the light supply to draw from.

Barley has been more active, with a steadier tone at a slight advance. Receipts have been quite free, with a good consumptive demand. The inquiry, to some extent, is of a speculative character, due to the low prices and a much less acreage seeded to barley. The supply of choice, bright, plump brewing grades is said to be light. With hot weather throughout the State, natural pasturage will soon get scarce, which will create a better demand from consumers and a stronger feeling by holders.

Corn is without essential change. The rapid movement from farmers' hands in the great corn belt causes many to look for better prices before the season closes. Europe has taken and is still taking more of this country's surplus than ever before, showing a natural growing appreciation of the cereal as an article of food. Crop prospects in this State are without essential change.

Choice to extra choice milling oats are doing slightly better, but feed varieties are still in buyers' favor. The stock in this State and in Oregon is said to be only fair for the season, but the crop prospects are of the best.

Rye is without essential change. The market is really in buyers' favor.

Hay has commenced in the more favored sections. As far as can be ascertained the crop this year will be large and of good quality, although many localities report the plant to be coarse. There is more of a selling pressure of new than for several years past, which causes buyers to bid down. Each concession made by sellers is met by large consumers with lower bids. It is difficult to say how much of the grain crop will be cut for hay, as it will depend largely upon crop prospects within the next fortnight.

Feedstuff.

Ground feed is weaker, but as the demand is improving, values ought to do better, particularly for bran and middlings, as ground barley is controlled by the market for barley.

Crop advices are decidedly mixed, but taken on the whole it is good, yet not quite up to what it was three weeks ago. The season is fully two weeks in advance of any former season, consequently the hot weather in the past two weeks, followed as it has been with a cooler spell, will not do the damage it would have had crop prospects been later. Crop advices from Oregon and Washington are of the very best.

Live-Stock.

Freer receipts of fruits and vegetables are against the fresh-meat trade, and as the offerings of bullocks, mutton sheep and hogs are free, prices favor buyers. The condition of the stock offering for sale averages better than for years. Lambs are coming in freely, but small calves are offering sparingly. Hogs are in freer receipt, with prices easing off. Advices report a large increase in the number of hogs raised this year. In milch cows and horses, there is nothing new to report.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, grain fed, 5 1/2 @ 6c lb; dressed, 8 1/2 @ 9c lb; soft, 5 1/2 @ 5 1/2 c lb; dressed, 8 @ 9c lb. Stock hogs, 5 @ 6c lb.

BEEF—Stall fed, 5 1/2 @ 6 1/2 c lb; grass fed, extra 6 @ 7 1/2 c lb; first quality, 5 1/2 @ 5 1/2 c lb; second quality 4 1/2 @ 5c lb; third quality, 4 @ 4 1/2 c lb; bulls and thin cows, —

VEAL—Small, 7 @ 8 1/2 c lb; large, 6 @ 7 1/2 c.

MUTTON—Wethers, 5 1/2 @ 5 1/2 c lb; ewes, 5 @ 5 1/2 c lb; lamb, spring, 6 1/2 @ 8 1/2 c lb.

Vegetables.

At to-day's, Wednesday's, market the receipts of seasonable vegetables were weaker. Vacaville is sending in liberal supplies of string beans, causing prices to shade off, and closing the market weak.

Free receipts of old potatoes at the close cause a weak tone, with lower prices than quoted looked for at an early day. Choice old onions are very scarce.

Choice, old potatoes are strong at an advance. New are coming in quite freely, with only the more matured fetching outside quotations. It is said that Salt Lake will send us several carloads of choice old.

In seasonable vegetables, asparagus moves off quite freely, with receipts still large. String beans are coming in more freely; peas are in liberal supply; green corn from Los Angeles is coming to hand; receipts of cucumbers are increasing; new cabbages show to better advantage; tomatoes are gradually easing off in price.

Wool.

Receipts continue to increase, with a much better assortment to select from. There is more sampling going with freer shipments being made to the East. It now looks as if lustrous goods will be more fashionable than ever, which will cause this class of wools to fetch better prices proportionately than the other kinds. This growing preference for lustrous goods will be more marked with next winter. Heavy weight wools goods had quite a run, but are now going out of style, which will make all wools of this class heavy at low prices, bought chiefly for mixing purposes. Medium to fine wools, clean, well-conditioned, healthy and lively, are in good request. The different kinds of wools were touched on by the writer in last week's Rural Press, under the caption of "Wool Facts and Figures."

Miscellaneous.

Young, well-conditioned, large-sized fowls sell well, fetching, at times, an advance on outside quotations. Poor or small-sized sell only at low prices. The market has ruled strong throughout the week, with a good demand toward the close.

Hops are firmly held, with an advance obtainable in sympathy with an improving market abroad and at the East.

Comb honey continues to shade off, under free supplies and good crop prospects. Extract is easier.

In beans, there is nothing new to report. More rain is said to be wanted in some localities for the growing crop.

Hides and tallow are easy.

Seeds of all kinds are slow.

Nuts are without change. Crop prospects are reported to be good.

From the *Commercial News* of April 29, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	189,162	271,399
On the way to neighboring ports 30,236		140,288
In port, disengaged.....	18,230	46,329
In port, engaged for wheat....	42,236	11,149
Totals.....	279,864	369,165

To get the carrying capacity, add 86 per cent to the registered tons as given above.

From July 1st to April 27, the following are the exports from this port:

	1889.	1888.
Wheat, cts....	11,315,310	8,033,058
Flour, bbls....	666,914	666,270
Barley, cts....	1,261,534	645,134

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

BEANS AND PEAS.	Old good to choice 2 00 @ 2 30	New 50 @ 75
Barley, cts....	2 30 @ 2 50	—
Butter, "....	2 50 @ 2 80	—
Pea, "....	1 75 @ 2 00	—
Red, "....	2 35 @ 2 75	—
Pink, "....	2 20 @ 2 40	—
Large White, "....	1 75 @ 2 00	—
Small White, "....	1 40 @ 1 65	—
Lima, "....	4 00 @ 4 25	—
Field Peas, Nkaye, "....	2 10 @ 2 10	—
do green, "....	3 00 @ 4 00	—
do Niles, "....	2 00 @ 2 10	—
BROOM CORN.	—	—
South'n 1/2 ton, 70 c @ 75 00	—	—
Northern, "....	85 00 @ 85 00	—

Northern.....	65	0	75	0	Early Rose.....	60	@	50
CHICKORY.					7 Chile.....	60	@	75
California.....	6	@	7		7 Peerless.....	70	@	80
German.....	7	@	7 1/2		Jersey Blues.....	@	@	@
DAIRY PRODUCE, ETC.					River Reds.....	25	@	40
BUTTER.					16 Burbanks.....	75	@	1 00
Cal. Poor to fair, lb.	10	@	14	@	16 Fancy Core.....	@	@	@
do good to choice	14	@	16	@	18 Sweet.....	@	@	@
do fancy brands	16	@	18	@	20 Tomatoes.....	40	@	60
do pickled.....	16	@	20	@	14 New, sacks.....	60	@	1 10
Eastern in tubs.....	11	@	14	@	POULTRY AND GAME.			
do in rolls.....	@	@	@	@	Hens, doz.....	0	@	8 50
CHEESE.					9 Roosters, old.....	5	@	8 50
Cal. new, choice.....	8	@	9	@	40 do young.....	50	@	12 00
do old.....	6	@	7 1/2	@	Broilers.....	3	50	@
do fair to good.....	6	@	7	@	7 Ducks, tame.....	60	@	10 1/2
new.....	6 1/2	@	7	@	Geese, pair.....	1	75	@
KIDDS.					do Goslings.....	2	00	@
Cal. ranch, doz.	17	@	18	@	6 Turkeys, Gobli.....	14	@	16
do store.....	13	@	16	@	16 Turkeys, Hens.....	15	@	18
Eastern, lined.....	12	@	14	@				
	12	@	14	@				

Alfalfa Compr'd	7 00 @ 8 50	Cotton.....	20 @ 1
Straw bale.....	65 @ 80	Flaxseed.....	21 @ 3
FLOUR.			
Extra, City Mills	4 35 @ 4 50	Hemp.....	31 @ 44
do Co Mills	4 00 @ 4 45	Italian Rye Grass	10 @ 11
Superfine.....	2 75 @ 3 25	Perennial.....	7 @ 9
GRAIN, ETC.			
Barley, feed, ctf.	63 @ 70	Millet, German.	5 @ 6
do Brewing.....	70 @ 80	do Common.....	5 @ 6
do do Choice.....	85 @ 90	Mustard, yellow	13 @ 24
Chevalier choice	@ -	do Brown.....	21 @ 32
do com to good	@ -	Rape.....	14 @ 2
Buckwheat.....	@ -	Ky. Blue Grass.	14 @ 16
Corn, White.....	1 00 @ 1 12	do quality.....	13 @ 14
Yellow.....	1 07 @ 1 15	Sweet V. Grass.	75 @ 7
Oats, milling.....	1 07 @ 1 17	Orchard.....	14 @ 16
Choice feed.....	1 05 @ 1 07	Hungarian.....	74 @ 8
do good.....	1 00 @ 1 02	Lawn.....	27 1/2 @ 40
do Gray.....	90 @ 97	Mesquit.....	6 @ 6
Rye.....	1 35 @ 1 45	Timothy.....	6 1/2 @ 6
Wheat, milling.....	1 42 1/2 @ 1 45	TALLOW.	
Gilt edged.....	1 40 @ 1 42	Crude, lb.....	3 @ 5
do Choice.....	1 40 @ 1 42	Refined.....	6 @ 6
do fair to good	1 35 @ 1 37	WOOL, ETC.	
Shipping, choice	1 35 @ 1 37	Spring-1889.	
do fair to good	1 32 @ 1 33	Humboldt and	15 @ 22
do fair.....	1 30 @ 1 31	Medocino.....	@ -
HIDES.			
Dry.....	11 @ 11	Sac'to valley.....	15 @ 22
Salted.....	5 @ 8	Free Astoria.....	12 @ 18
HOPS.			
Oregon, 1887.....	6 @ 12	S Joaquin valley	12 1/2 @ 20
do 1888.....	14 @ 18	do mountain.....	@ -
California, 1887	6 @ 12	Cal's & F's 11	15 @ 24
do 1888.....	14 @ 18	Oregon Eastern.	@ -
		do valley.....	@ -
		So'n Coast, def.	11 @ 14
		So'n Coast, free.	13 @ 18

Fruits and Vegetables.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.		WEDNESDAY, May 1, 1889.	
Apples, bx, com	— @ —	do extra choice	2 00 @ 2 50
do Choice	— @ —	Okra, dry, lb.	5 @ 7
do Extra, bbl	— @ —	do Green bx.	18 @ 25
Bananas, bunch	1 50 @ 3 50	Parsnips, ctf.	1 00 @ 1 25
Cranberries	7 @ 8	Peppers, dry, lb.	7 @ 9
Limes, Mex.	3 50 @ 4 50	do green, lb.	12 1/2 @ 20
do Cal.	60 @ 1 50	Squash, Sum-	mer, lb.
Lemons, Cal. bx	75 @ 1 75		7 @ 10
do Sicily, box	5 00 @ 6 00	do M'w-fat	10 @ 25 00
do seedling	2 00 @ 3 00	String beans, lb.	4 @ 8 1/2
Oranges Com bx	75 @ 1 25	do do Wax	6 @ 8 1/2
do Choice	1 75 @ 2 50	Turnips, ctf.	50 @ 75
do Navel's	4 00 @ 4 75	Beets, sk.	50 @ 75
do good	3 00 @ 3 75	Cabbage, 100 lbs	45 @ 60
do Com.	1 75 @ 2 50	Carrots, sk.	25 @ 30
Pineapples, doz.	5 00 @ 6 00	Green Corn, doz	20 @ 50
Raspberries dry	75 @ 1 25	Green Peas, sk.	50 @ 75
Strawberry chest	7 00 @ 8 00	Sweet Peas, lb.	2 @ 3
do fair to good	4 00 @ 6 00	Mushrooms, Cul.	tivated, lb.
Gooseberries, lb.	8 @ 10		25 @ 30
Cherries, red, bx	70 @ 1 00	Wild, lb.	5 @ 10
do blk bx	90 @ 1 25	Rhubarb, bx.	50 @ 1 00
do white bx	70 @ 1 00	Cucumbers, doz.	40 @ 1 00
		Garlic, lb.	1 @ 1 1/2
		Tomatoes, rv, bx	1 00 @ 1 75
VEGETABLES.		Egg Plant, lb.	7 @ 10
Asparagus, bx.	1 00 @ 1 50		
do choice.	1 75 @ 2 25		
do extra bx.	2 50 @ 3 00		

Where to Get the Powder for the Vines.

EDITORS HERALD:—I am constantly in receipt of letters of inquiry regarding the powder referred to in Prof. Dowlen's and my report to the Board of Supervisors of this county. Will you kindly permit me to announce through your columns that the powder is manufactured by the Ongert Grafting Compound Company, 210 and 212 Davis street, San Francisco. It was from this company I bought the powder that I am now using in my vineyards and those of the San Gabriel Wine Company. Mr. E. Steele, at 113 West First street, Los Angeles, is the agent for this company in this section of the State. Permit me also to add that I have no interest, directly or indirectly, in the manufacture or sale of this powder. Respectfully yours,

J. DE BARTH SHORE.
San Gabriel, Cal., April 25, 1889.

The above from the Los Angeles Herald of April 27, 1889, refers to the powder which is being advertised in the Rural Press.

CONSUMPTION CURED.

An old physician retired from practice, having had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints, after having tested its wonderful curative powers in thousands of cases, has felt it his duty to make it known to his suffering fellows. Actuated by this motive and a desire to relieve human suffering, I will send free of charge, to all who desire it, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing with stamp, naming this paper, W. A. Noves, 149 Powers Block, Rochester, N. Y.

Injurious Insects of the Orchard, Vineyard Field, Garden, Conservatory, etc.,

Remedies for their Extermination.
By MATTHEW COOKE.

Late Chief Executive Horticultural Officer of California. Illustrated with over 750 wood-cuts and 25 pages of classified illustrations. This book is designed for the use of orchardists, vineyardists, farmers and others interested in the subjects treated. It is designed to convey practical information concerning some of the species of insects injurious to the industries of cultivators of the soil, and those interested in earth produce generally. Price \$4, postpaid. For sale by Dwyer & Co., publishers, 220 Market St., San Francisco.

ORANGE CULTURE IN CALIFORNIA.

Now that the interest in the culture of the orange is extending so as to embrace nearly all parts of the State, a book giving the results of experience in parts of the State where the growth of the fruit has been longest pursued will be found of wide usefulness.

"Orange Culture in California" was written by Theo. A. Garey of Los Angeles, after many years of practical experience and observation in the growth of the fruit. It is a well-printed hand-book of 196 pages, and treats of nursery practice, planting of orange orchards, cultivation and irrigation, pruning, estimates of cost of plantations, best varieties, etc.

The book is sent post-paid at the reduced price of 75 cents per copy, in cloth binding. Address Dwyer & Co., Publishers "Pacific Rural Press," 220 Market St., S. F.

THE OLIVE.—The meeting of the Horticultural Society last Friday was large, and the discussion on the olive awakened much interest. We are obliged to defer an outline of the proceedings until our next issue.

THE Red Bluff Sentinel says that \$93,000 is paid out every year by the people of that town for flour alone. It advises the people to build a good mill and keep the money at home.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

	Portland.			Eureka.			Red Bluff.			Sacramento.			S. Francisco.			Fresno.			Keeler.			Los Angeles.			San Diego.											
DATE.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.								
April 24-30.																																				
Wednesday.....	.12	60	S	Cy.	.00	58	N	Cy.	.00	78	S	Fr.	.00	80	SW	Fr.	.00	60	W	Cl.	.00	88	E	Cl.	.00	80	SW	Cy.	.00	74	W	Fr.	.00	68	Nw	Cy.
Thursday.....	.04	70	Nw	Cl.	.00	56	W	Cy.	.00	84	S	Fr.	.00	78	N	Cl.	.00	58	W	Cy.	.00	90	W	Cl.	.00	84	Nw	Cl.	.00	64	W	Cl.	.00	70	Nw	Cl.
Friday.....	.00	76	S	Fr.	.04	56	Nw	Cy.	.00	82	S	Fr.	.00	80	SW	Cl.	.00	56	W	Cl.	.00	92	W	Cl.	.00	78	S	Cl.	.00	64	W	Cl.	.00	64	W	Cl.
Saturday.....	.10	52	SW	Ry.	.16	56	SW	Cy.	.20	66	S	Cl.	.00	68	SW	Fr.	.T	50	W	Fr.	.00	74	Nw	Cl.	.00	72	SW	Cl.	.00	64	W	Cl.	.00	64	W	Cl.
Sunday.....	.04	56	Nw	Cy.	.00	.....	.....	.....	.02	76	N	Cl.	.00	70	Nw	Cl.	.00	63	W	Cl.	.00	74	Nw	Fr.	.00	70	SW	Cl.	.00	64	W	Cl.	.00	62	S	Cy.
Monday.....	.00	70	N	Cl.	.00	58	N	Cl.	.00	86	Cm	Cl.	.00	78	SW	Fr.	.00	57	SW	Cl.	.00	82	N	Cl.	.00	72	SW	Cl.	.00	64	W	Cl.	.00	64	W	Cl.
Tuesday.....	.00	76	SE	Fr.	.00	54	N	Cy.	.00	80	S	Fr.	.00	78	SW	Cl.	.00	56	SW	Cl.	.00	90	W	Cl.	.00	74	S	Cl.	.00	60	W	Fr.	.00	62	W	Cy.
Total.....	.30	.....	.....	.....	.20	.....	.....	.....	.22	.....	.....	.....	.00	.....	.....	.....	.T	.....	.....	.....	.00	.....	.....	.....	.00	.....	.....	.....	.00	.....	.....	.....	.00	.....	.....

EXPLANATION.—Cl, for clear; Cy, cloudy; Fr, fair; Fy, foggy; Cm, calm; — indicates too small to measure. Temperature, wind and weather at 12:00 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.



The only machine that received an award on both Horse-power and Thresher and Cleaner, at the Centennial Exhibition; was awarded the two last Gold Medals given by the New York State Agricultural Society on Horse-powers and Threshers; and is the only Thresher selected from the vast number built in the United States, for illustration and description in "Appleton's Cyclopedia of Applied Mechanics," recently published, thus adopting it as the standard machine of this country. Buy the best. It is cheapest in the end. Catalogue sent free. Address, MINARD HARDER, Cobleskill, Schoharie Co., N. Y.

Also straw-preserving Re-threshers, Clover-hullers, Fodder-cutters, Feed-mills, Fanning-mills, and Saw-machines; all of the best in market.

The Fearless Horse-powers are the most economical and best Powers built for the running of Ensilage-cutters and Cotton-gins, and for general farm and plantation use.

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SQUIRREL AND GOPHER EXTERMINATOR!
IN 1-LB. AND 5-LB. CANS.

EXCELSIOR GROUND BONE.

This Excelsior Ground Bone is strictly pure and positively ground from its original condition WITHOUT BEING BURNED FIRST, thereby saving all the valuable ingredients of bone which burning destroys. Poultry rush for it, crowding each other away in their eagerness, and pick it up as if starved in their craving for it. It requires but a glance to show its true value and genuineness. The result is every one orders who see it, besides orders from Merchants and Poultrymen from every section. SAMPLES FREE. Send for Samples. Retail price, 50 lbs. \$2.00, 100 lbs. \$3.50. NOTE.—Poultrymen not using the IMPROVED EGG FOOD should do so at once. The STANDARD Poultry Preparation for TEN YEARS. Send for Circulars. B. F. WELLINGTON, Importer and Dealer in SEEDS, Proprietor of the Improved Egg Food, and Agent for Excelsior Ground Bone. 425 Washington Street, San Francisco.

Printing Business For Sale.

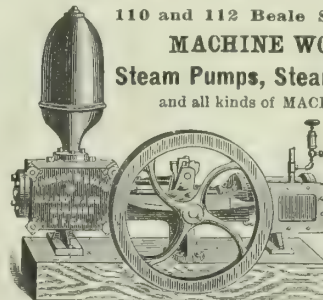
A splendid paying business, already established, for a good business man with a small capital. He can step into it in the morning and count his profits at night. Everything in first-class order. Steam Engine and Electric Power. A first-class and well established newspaper and book and job printing business. It has at this time a large and profitable patronage. Parties seeking to invest will find this property in perfect order. Failing health compels the proprietor to offer it for sale at a great bargain. Location of plant and address, 379 Tenth, corner Franklin St., Oakland, Cal.

TO SUBSCRIBERS.—Members of the P. of H. now receiving the regular editions of the RURAL PRESS are advised to try our Grange editions in press for awhile. The cost is the same for each edition. We will transfer names from either to the other on receiving a written request therefor.

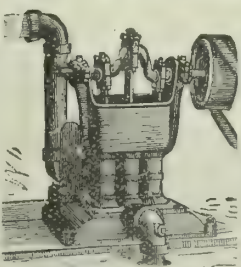
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Steam Pumps, Steam Engines
and all kinds of MACHINERY.



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HORSE POWERS, Windmills, Tanks

and all kinds of Pumping Machinery built to order. Awarded Diploma for Windmills at Mechanics' Fair, 1885. Windmills from \$65. Horse Powers from \$50. Send for Catalogue and Price List. F. W. KROGH & CO., 51 Beale St., San Francisco.

75 CARDS. 25 May 1889 Home Cards, 25 Export Cards, 25 Fine Cards, 25 Station Cards, and 25 Sample Book of Hidden Name Cards. All only 10 cents. Steam Card Works, Station 14, Union.

APIARIAN SUPPLIES for sale by Mrs. J. D. Enas, Napa City, Cal.

Windmills and Pumps.

HORTON & KENNEDY'S
FAMOUS

ENTERPRISE
Self-Regulating
WINDMILL

Is recognized as the BEST.

Always gives satisfaction. SIMPLE, STRONG and DURABLE in all parts. Solid Wrought-iron Crank Shaft with DOUBLE BEARINGS for the Crank to work in, all turned and run in adjustable babbitted boxes.

Positively Self-Regulating,

With no coil springs, or springs of any kind. No little rods, joints, levers, or anything of the kind to get out of order, as such things do. Mills in use 6 to 12 years in good order now, that have never cost one cent for repairs. All genuine Enterprise Mills for the Pacific Coast trade come only through this agency, and none, whether of the old or latest pattern, are genuine except those bearing the "Enterprise Co." stamp. Look out for this, as inferior mills are being offered with testimonials applied to them which were given for ours. Prices to suit the times. Full particulars free. Best Pumps, Feed Mills, etc., kept in stock. Address,

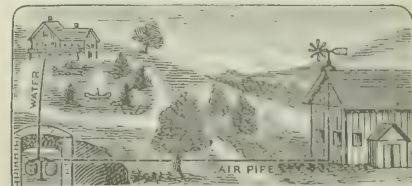
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GENERAL OFFICE AND SUPPLIES (as always before),
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San Francisco Agency, JAMES LINFORTH
37 Market Front St. San Francisco.

WARRANTED not to blow down off the tower, and that our Geared Wind Mills have double the power of all other mills. Mfrs. of Tanks, Wind Mill supplies, and the Celebrated

CHALLENGE Feed Grinders, HORSE POWERS, CORN SHELLERS, PUMPS and BRASS CYLINDERS. Send for Catalogue and Prices. Good AGENTS WANTED. CHALLENGE WIND MILL & FEED MILL CO., BATAVIA, KANE CO., ILL.

The Best is the Cheapest.



COMPRESSED AIR, WIND MILL AND POWER PUMPS.

Simplest and Best Method for Raising Water to any Height.

Runs in the lightest winds. Works in the heaviest gales. Does not get out of order. Noiseless in operation. Needs no oiling or other attention except than four times a year. No wearing parts exposed to the weather. No tower required, as Wind Mill can be located in the best exposure on barn or hill at any distance from water supply. Pumps five times more water than any other wind mills. Adapted to any size well. Recommended by distinguished engineers. The strongest and best pump made for farms, mines, railway service, drainage and irrigation. Send for catalogue.

Hartford Compressed Air Pump Co., Bound Brook, N. J.

Buy the FISH BROTHERS FARM AND SPRING



And You will Have the BEST.

Frank Brothers,

—DEALERS IN—
Agricultural Implements,
BUGGIES, HARNESS,
ETC., ETC.
33 and 35 MAIN ST.,
SAN FRANCISCO, CAL.

Why Sixty Seconds Make a Minute.

Why is our hour divided into 60 minutes, each minute into 60 seconds, etc.? Simply and solely because in Babylon there existed, by the side of the decimal system of notation, another system, the sexagesimal, which counted by sixties. Why that number should have been chosen is clear enough, and it speaks well for the practical sense of those ancient Babylonian merchants. There is no number which has so many divisors as 60. The Babylonians divided the sun's daily journey into 24 parasangs, or 720 stadia. Each parasang or hour was subdivided into 60 minutes. A parasang is about a German mile, and Babylonian astronomers compared the progress made by the sun during one hour at the time of the equinox to the progress made by a good walker during the same time, both accomplishing one parasang. The whole course of the sun during the 24 equinoctial hours was fixed at 24 parasangs, or 720 stadia, or 360 degrees. This system was handed on to the Greeks, and Hipparchus, the great Greek philosopher, who lived about 150 B. C., introduced the Babylonian hour into Europe.

Ptolemy, who wrote about 140 A. D., and whose name still lives in that of the Ptolemaic system of astronomy, gave still wider currency to the Babylonian way of reckoning time. It was carried along on the quiet stream of traditional knowledge through the Middle Ages, and, strange to say, it sailed down safely over the Niagara of the French revolution. For the French, when revolutionizing weights, measures, coins, and dates, and subjecting all to the decimal system of reckoning, were induced by some unexplained motive to respect our clocks and watches, and allowed our dials to remain sexagesimal, that is, Babylonian, each hour consisting of 60 minutes. Here you see again the wonderful coherence of the world, and how what we call knowledge is the result of an unbroken tradition of a teaching descending from father to son. Not more than about 100 arms would reach from us to the builders of the palaces of Babylon, and enable us to shake hands with the founders of the oldest pyramids and to thank them for what they have done for us.—Max Muller.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

A. F. JEWETT—Tulare Co.
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Wm. WILKINSON—Alameda and San Joaquin Cos.
CHAS. DUGAN—Stanislaus Co.
R. G. BAILEY—San Francisco.

AN IMMENSE BUSINESS.—Some idea may be formed in regard to the immense business which the Westinghouse Company is doing from the fact that the Pond Company of Plainfield, New Jersey, with a large plant, are using their best efforts to supply the Westinghouse Company with lathes and other tools required by that company, who are now engaged in fitting up numerous plants in various parts of the country. The Pond Company has found the demand ahead of the capacity of their works and have just negotiated with F. E. Reed of Worcester, Mass., to assist them to the extent of building no less than 200 lathes of various kinds.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, term of subscription, and give it their own patronage, and as far as practicable aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Successful Patent Solicitors.

As Dewey & Co. have been in the patent-soliciting business on this Coast now for so many years, the firm's name is a well known one. Another reason for its popularity is that a great proportion of the Pacific Coast patents issued by the Government have been procured through their agency. They are, therefore, well and thoroughly posted on the needs of the progressive industrial classes of this Coast. They are the best posted firm on what has been done in all branches of industry, and are able to judge of what is new and patentable. In this they have a great advantage, which is of practical dollar and cent value to their clients. That this is understood and appreciated, is evidenced by the number of patents issued through their SCIENTIFIC PRESS Patent Agency (S. F.) from week to week, and year to year.

A SCIENTIFIC ODDITY.—The model of an earthquake is a unique piece of apparatus that has been constructed by a Tokio seismologist. Patiently and laboriously following out the accurate records of a modern seismograph, Prof. Sekiya has succeeded in shaping a long coil of copper wire, so as to represent, with the utmost precision, the intricate path described by a shaken spot of the earth's surface. The model magnifies 50 times the ground's absolute motion during 72 seconds, and resembles a ball of twice unwound and thrown down in a confused heap. Numbered tags show the progress of the shock for each second of time.

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"Having been troubled with rheumatism at the knee and foot for five years, I was almost unable to get around, and was very often confined to my bed for weeks at a time. I used only one bottle of Paine's Celery Compound, and was perfectly cured. I can now jump around, and feel as lively as a boy." FRANK CAROLI, Eureka, Nevada.

Paine's Celery Compound

has performed other cures as marvelous as this—expressed here. It is sent to any address. Pleasant to take, does not disturb the stomach, and is entirely vegetable. A child can use it. It cures even those whom doctors call incurable. What is the use of suffering with rheumatism? \$1.00, SIX FOR \$5.00. DRUGGISTS. WELLS, RICHARDSON & CO., Burlington, Vt.



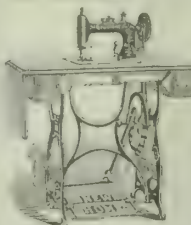
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\$70 Grade reduced to.....\$45
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Send for stamps for large catalogue of Guns and Hunters' and Anglers' Goods.

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THE POPULAR

NEW HOME

Light-Running
SEWING MACHINE.

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An Automatic Organ Combined with an Ordinary Five-Octave Organ.

NO TEACHER OR PRACTICE NECESSARY. ANYBODY CAN PLAY the latest and most difficult music of every class. Every home should have one. Send for descriptive circulars, prices and terms to

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ALL KINDS

Hay, Dormant, Grain, Portable, Grocers' Even Balance, Post Office, Butchers' Spring Balances.

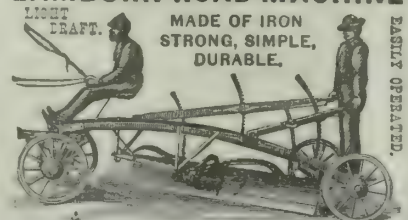
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HAS NO EQUAL

IN THE WORLD

—FOR—

Cheapness and Durability.

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Cannot be Torn. Anybody can put it on.

No Coal Tar. No Odor.

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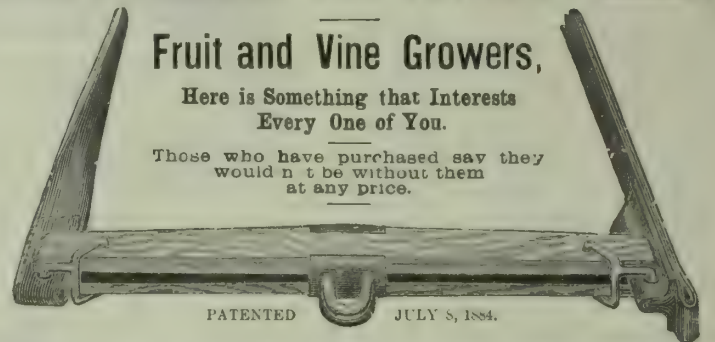
310 California St., San Francisco.

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Fruit and Vine Growers,

Here is Something that Interests Every One of You.

Those who have purchased say they would not be without them at any price.



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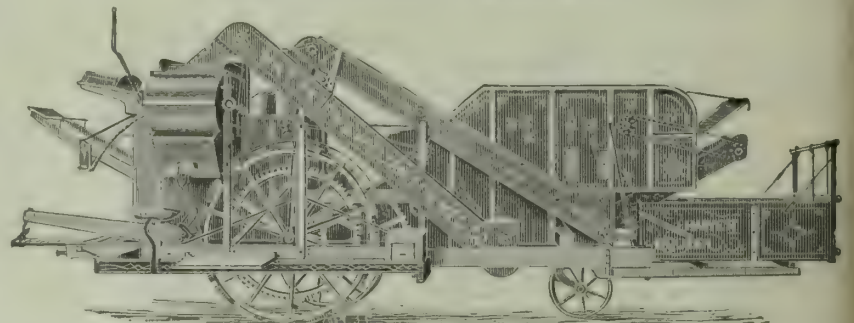
IS A SURE PREVENTION AGAINST DAMAGING TREES OR VINES, and will save its cost every day it is in use. Used with any trace without change, or by adding a little supplementary trace we furnish. Price of Singletree only 75 cts.; Sup. Leathers, 50 cts. per pair; with full set Traces, \$5.

G. G. WICKSON & CO.,

Nos 3 and 5 FRONT ST., - - SAN FRANCISCO, CAL.

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IT IS SUPERIOR TO EVERY THING OF ITS CLASS.

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Policies issued on growing crops, grain in warehouse, farm buildings, and other property, in these old and reliable companies. Losses promptly and liberally adjusted.

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Elevator, 12 Front.

Seeds, Plants, Etc.

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BEST ORANGE TREES,

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FAN PALMS,

Japanese Mammoth Chestnut,

OLIVE and PERSIMMON TREES,

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General Line of Fruit and Ornamental Trees and Plants.

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HARDY NORTHERN-GROWN

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Correspondence solicited. Send for Catalogue, Free.

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Jas. A. Anderson, - - - Manager.

APRIL 1, 1889.

I have now growing 500,000 Seedling Almonds, Peach, Plum, Pear, etc., started from choicest Natural Seeds, and am prepared to take orders to June Bud for fall and winter delivery. Fruit Trees of all kinds, including I. X. L., Nonpareil and Ne Plus Ultra Almonds, French Prunes, Prune d'Ente and Japan Plums, Royal Blenheim and Newcastle Early Apricots, leading varieties of choice Peaches. Bartlett Pears, Cherries, etc.

Varieties guaranteed as represented. My nursery lands are new and produce fine growth in body and fibrous roots, to which my patrons all attest. For particulars and prices, address

JAS. A. ANDERSON,
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FOR SALE.

400 Redding Picholine Olive Trees, From three to five feet high—stocky, thrifty, well rooted. A bargain. Address Humphrey B. Pilkington Box 341, Santa Cruz



BROWNE'S SQUIRREL AND GOPHER SMOKER.

This is an apparatus for Burning Straw and Sulphur

And forcing the Smoke and Gases down their holes, which kills them. Does away with poisoned wheat and all other dangerous methods. Every one guaranteed or money refunded.

Price, \$3.00

AGENTS WANTED EVERYWHERE.

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Patented Mar. 23, 1886.

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AGRICULTURAL WORKS,

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Stationary Engines and Boilers,
Portable Straw-Burning Boilers & Engines.

IRON AND BRASS CASTINGS.
Machinery of all kinds furnished at shortest notice.

Heald's Patent Wine-making Machinery, including Grape Crushers and Stemmers, Elevators, Wine Presses and Pumps, and all appliances used in Wine Cellars. Irrigating and Drainage Pumps. Heald's Patent Engine Governor, Etc.

This paper is printed with Ink Manufactured by Charles Eneu Johnson & Co., 500 South 10th St., Philadelphia. Branch Offices—47 Rose St., New York, and 40 La Salle St., Chicago. Agent for the Pacific Coast—Joseph H. Dorsey, 529 Commercial, St. S. F.

STOCKTON NURSERY,

Established 1863.

ADRIATIC and SAN PEDRO FIGS.

French Walnuts, Home-grown Oranges and Rooted Grapevines.

Illustrated Catalogue and Price List for the season of 1887-88 free to all sending for them. All Trees, Vines, etc., guaranteed free from scale and other injurious pests. A certificate of inspection furnished to all. A full line of Fruit and Ornamental Trees, Shrubs, Vines and Hothouse Plants.

E. C. CLOWES, Proprietor

(Successor to W. B. WEST).

Stockton, Cal.

INCORPORATED 1884.

460 ACRES.

FRUIT TREES!

Established 1863.

FRUIT TREES!

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We have now for sale at Lowest Market Rates the Largest, Best Selected and Healthiest Stock of

Fruit Trees, Grapevines, Olives, Small Fruits, Etc., Etc.

Ever offered on the Pacific Coast, including all the new varieties, all grown on new land at the above Nursery and free from scale and other pests. Samples of the trees always on hand.

Seeds! Seeds! Seeds!

WE HAVE ALSO CONSTANTLY ON HAND A LARGE AND FRESH STOCK OF

Grass, Clover, Vegetable, Flower and Tree Seeds,

And Ornamental Trees and Plants, Bulbs, Roses, Magnolias, Palms, etc.,

AT LOWEST RATES. New Catalogue for 1888 mailed on application.

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ORANGE SEED! ORANGE SEED!

From Fresh, Ripe Tahiti Oranges.

We shall receive a cargo of Tahiti Oranges about the 15th of May and desire to call the attention of Nurserymen and all who use this Seed to this opportunity to procure it, as this is the only seed fit to plant, as it is the only kind that will germinate. It will be packed in barrels as usual. Please send in your orders early so that we can fill them as soon as possible.

L. G. SRESOVICH & CO., 505 and 507 Sansome Street, San Francisco.

FOR THE MYSTERIOUS VINE DISEASE.

ONGERTH'S INSECTICIDE POWDER,

No. 2.



TRADE MARK REGISTERED.

This powder is the preparation specially recommended by Hon. J. De Barth Shorb, Viticultural Commissioner, and Prof. Ethelbert Dowlen, Expert employed by the State to investigate the mysterious Vine Disease. All the powder used by them in their recent experiments was the ONGERTH INSECTICIDE POWDER No. 2, of which about 20,000 pounds have been shipped to the San Gabriel Valley.

See Official Report in Rural Press April 27, 1889.

No preparation genuine without this trade-mark.

Manufactured by the ONGERTH GRAFTING COMPOUND CO., 210 & 212 Davis St., San Francisco, to whom all orders should be addressed. Samples and prices submitted on application. Also manufacturers of the Ongert's Liquid Tree Protector and Ongert's Grafting Compound.

PRESCOTT HOUSE.



S. W. Corner Kearny and Montgomery Avenue, San Francisco.

Free Coach to and from the House.

J. W. BECKER, Proprietor.

CLARK'S CUTAWAY HARROW

ENTIRELY NEW.

10,000 in ACTUAL USE.

SUPERSEDES THE PLOW! BEATS THE WORLD!

GROUND MADE INTO A PERFECT SEED BED.

Has a SEEDING ATTACHMENT FOR SOWING ALL KINDS OF GRAIN.

Send for New Circular with full description, FREE.

HIGGANUM MFG. CO., HIGGANUM, CONN.

189 and 191 Water Street, NEW YORK.

BURGE & DONAHOO CO., General Agents, San Francisco, Cal.

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TO FRUIT GROWERS.

PROTECT YOUR TREES

AGAINST

Sunburn, Rabbits, Borers and other Pests.

THE EXCELSIOR FRUIT TREE PROTECTOR

Is not only a protection against Sunburn, but being chemically prepared, is proof against Rabbits, Borers, etc., and is approved and being used by all orchardists who have examined its merits.

Buy neither until you have seen the EXCELSIOR. Its simplicity of fastening will recommend it, as it requires one-third less time to adjust it than any other make.

Price for Protection from Sunburn, \$1 per 100.
Price for Protection against Sunburn, Rabbits and other Pests, \$2 per 100.

BONESTELL & CO., Agents,

401 & 403 Sansome St., San Francisco.

SEND FOR SAMPLES.

PROTECT YOUR TREES

FROM

Sunburn, Borer, Rabbits, etc.

One Cent per Tree!

Hay's Tree Stem Envelope
(Patent applied for).

WATERPROOF! ADJUSTABLE!

Easy, economical and expeditious.

Saves time, trouble and expense.

Waterproof Paper, 7x18 inches, \$1 per 100.

Tarred Felt, vermin and waterproof, good for 3 years, 7x16 inches, \$2 per 100. Special sizes made to order. Send for samples. Orders promptly filled by

PACIFIC PAPER CO.,

416 Sacramento St., San Francisco, Cal.

SCREENS



Manufacturers of all kinds of Perforated Metal, Lip and Lip Hook Screens, round and slotted, or any other kind desired for cleaning and separating grain. Farmers will please take notice that the metal screens do not clog or choke up as do the old wire screens heretofore in use. Also manufacturers of Quartz Screens. Information by mail. California Perforating Screen Co., 45 & 147 BEALE ST., S. F.

REVERSIBLE MYERS' STEEL and WOOD TRACK HAY CARRIERS

TRADE MARK. A complete outfit. Easy to put up, always reliable and in full repair. Wanted to meet the wants of any farmer.

BEST HAY TOOLS IN THE MARKET.

MYERS' FORCE AND LIFT PUMPS

Simple, durable, powerful, easy to operate, never affected by frost. Patent GLASS VALVE, will never corrode. Ask your dealer for our goods. Write for catalogue.

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F. E. MYERS & BRO. ASHLAND, O.

"SOMEBODY TREAD ON THE TAIL OF ME COAT."

GET YOUR COFFINS READY.

WE DID WISELY

WHEN WE

Commenced to Advertise.



SAN JOAQUIN.

You will come nearer wanting them than Don Quixote did after his memorable attack on the ancient wind-mills of Spain.

Tell the truth, "Partner," don't our Windmills look splendid. DO COME AND STAND BESIDE US JUST ONCE. We are LONESOME.



IMPROVED DAVIS WITH TANK.



IMPROVED DAVIS.

The Intelligent People Appreciate a Good Windmill.

Our Sales are Increasing Wonderfully.

We are enlarging our capacity to keep up with orders.

What crime is a man guilty of who puts up a Windmill when it blows down and kills somebody? MURDER!

Special Rate to Parties Where our Mills are not in Use.

AGENTS WANTED EVERYWHERE.

READ WHAT THE PEOPLE SAY:

MERCED, Oct. 17, 1888.
R. F. Wilson, Esq.—Dear Sir: Yours of 16th to hand and noted. You have my permission to use my name in your Catalogue as reference. Your mills give entire satisfaction. I am using ten or twelve. Yours respectfully,
C. H. HUFFMAN, Treasurer Merced Canal & Irrigation Co.

STOCKTON, March 9, 1889.
R. F. Wilson—Dear Sir: I pronounce your Improved Davis Windmill superior to all other kinds. The amount of water they will pump is wonderful. They are splendid regulators. Yours respectfully,
J. M. WELSH, Manager Stockton Milling Co.

STOCKTON, Feb. 14, 1889.
R. F. Wilson—Dear Sir: After using your Improved Davis Windmill nearly one year, I will say that it has given entire satisfaction. Yours respectfully,
L. U. SHIPPEE.

STOCKTON, Feb. 23, 1889.
Mr. R. F. Wilson: The windmills I have bought from you from time to time—not less than eight or ten, for myself and relatives—have given entire satisfaction, and I think there are none better. Respectfully yours,
JAS. A. CROW.

STOCKTON, Feb. 28, 1889.
Mr. R. F. Wilson—Dear Sir: You have permission to use my name in saying that the windmill erected by you for the county of San Joaquin, is regarded as durable, runs with very light winds, and is a good self-regulator. It has given satisfaction. Respectfully yours,
W. M. K. CARSON, Supervisor Third District.

AUBURN, Feb. 22, 1889.
R. F. Wilson—Dear Sir: The windmill which I purchased from you in May, 1885, has been running in the most satisfactory manner ever since. I was especially pleased with the manner in which it withstood the heavy windstorm of this winter; in view of the fact, too, that almost every other windmill in town was more or less injured. Very truly yours,
J. E. PREWITT.

STOCKTON, Feb. 21, 1889.
R. F. Wilson—Dear Sir: I have used your large Irrigating Windmill with good success, having two 10-inch pumps attached to each mill with walking-beam attachment, and same would work with ease in a light or heavy wind and regulate themselves. I can fully recommend them to intending purchasers. I myself would take no other if I were to have dozens. Yours,
L. H. CUTTING.

CENTRAL POINT, March 19, 1889.
R. F. Wilson—Dear Sir: Yours received. I have used your Windmills for the past two years and find them to be powerful, durable, light running and well regulated Windmills, giving satisfaction in every way. Yours respectfully,
H. G. TANNER, Superintendent for Miller & Lux.

GRAYSON, Cal., April 6, 1889.
R. F. Wilson, Esq., Stockton—Dear Sir: The Windmill was received and is set up and running. I am delighted with it. It runs when there seemingly is no wind at all. There are several kinds of mills in my neighborhood, but I think the "Improved Davis" beats any I have ever seen. Wishing you success in your great enterprise, I remain Yours respectfully,
J. H. McCAFFREY.

P. O. Box 126.
Telephone No. 314.

R. F. WILSON & CO., 347 Commerce St., Stockton, Cal.

STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS

THE MILLER LIGHTNING HAY PRESS.

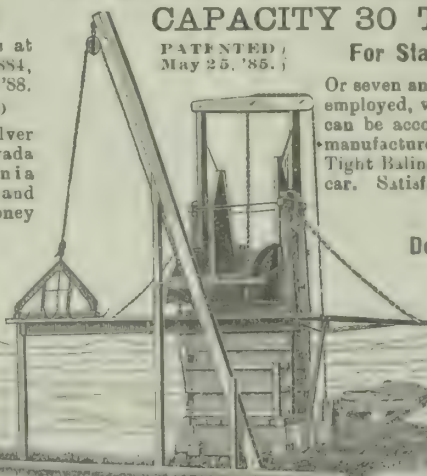
AWARDED

First Premiums at State Fairs, 1884, 1885, '86, '87 & '88.

AWARDED

Gold and Silver Medals at Nevada and California State Fairs, and won contest money of \$50.

Requires but Four Men and Two Animals to do Rapid Work.



CAPACITY 30 TONS PER DAY,
PATENTED May 25, '85.

For Standard Size Baling Press,

Or seven and a half tons per day for each man employed, which is more than has been or can be accomplished by any other Press yet manufactured. Twenty tons a day with Tight Baling Press. Can put ten tons in a car. Satisfaction guaranteed.

Does not require Hay Stacks built to suit our Press.

WOOL PRESSES
TO ORDER

HOUSER COMBINED HARVESTER

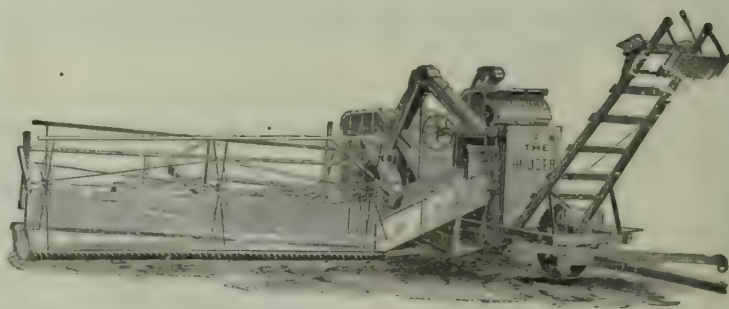
—MANUFACTURERS OF—

Received First Premium, State Fair, Sacramento.

No Experiment! No Failures

NINE YEARS IN THE FIELD.

500 IN FIELD USE.



None Ever Returned.

They have a larger sale than all other Harvesters combined. Built for heavy work and large grain fields with heavy grain. Always victorious in competitive trials. They have reduced the cost of Harvesting to less than \$1 an acre, and save three bushels an acre over and above Heading and Threshing. Have our Premium Extra "Star" Double Shoe Cleaner, the only successful Harvester Cleaner made. Received First Premium in 1888.

WOODLAND, Sept. 19, 1888.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 14-foot Houser I bought of you this season fills the bill right up to the handle. I have cut 1200 acres; have threshed 623 bags of wheat in one day, averaging 540 bags for six days. The Star Cleaner and Improved Shoe are perfect, and last, but not least, I turn a square corner and save all the grain.
J. R. JONES.

YUBA CITY, Sept. 13, 1888.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I have one of your Star Cleaner and Improved Shoes on my Houser Combined Harvester, and can say that the cleaner is far superior to any I have ever seen in barley, being able to return unthreshed barley and pieces of heads direct to the cylinder, something that everybody can appreciate that has run a Harvester. The Cleaner is of sufficient capacity, I having threshed 650 sacks a day. It is well made and very durable. The new shoe is perfection. I consider the Houser very strong and durable, and as light draft as machines of lighter build of same capacity.
A. GRAFFIS.

BIGGS, Nov. 25, 1888.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: I bought one of your 16-foot Houser Harvesters this season and cut my crop of 1200 acres with same without any expense for extras. The Star Cleaner and Improved Shoe are perfection. Heretofore, when using another make of Harvester, I had to have all my grain cleaned at an expense of \$500 or more, but with my machine it was not necessary, as the grain was clean enough for seed as it was taken from the spout, and I only regret that I did not buy one two years ago, and I would have saved over \$5000. I prefer the Improved Houser to any other make of Combined Machines, and would recommend it to my friends in need of a Combined Harvester.
W. S. RIDDLE.

YUBA CITY, Oct. 15, 1888.

Stockton Combined Harvester and Agricultural Works—GENTLEMEN: The 16-foot Houser Harvester that I bought of you this season, with the Star Cleaner, gave entire satisfaction, and, I think, is the best Harvester in the market. Will recommend it to anybody or friend that wants to buy a Harvester.
J. W. HUMPHREYS.

Also Manufacturers of "Star" and Angle Sieve Grain Cleaners, Curved Standard Gang Plows and Plow Extras, Passenger and Freight, Motor, Cable and Horse Cars.

Office and Works, cor. East & Main Sts., 4 blocks East of S. P. R. R. Depot. STOCKTON.

The "STAR" Double Shoe CLEANER

—FOR—

COMBINED HARVESTERS,

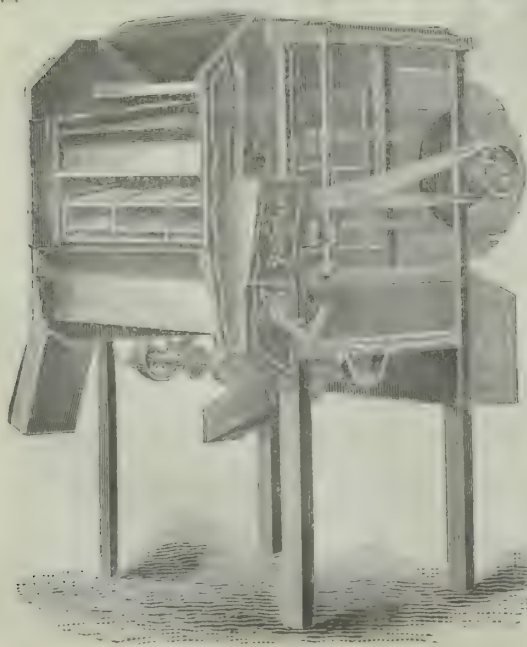
Awarded First Premium at State Fair, Sacramento, Sept. 24, '87.
(PATENT APPLIED FOR.)

The "STAR" Double Shoe CLEANER

—FOR—

STATIONARY THRESHERS

We also build to order the "Star" Cleaner with sufficient capacity for any threshing machine. It is mounted on trucks and can be set by the side of any "thresher," the power being transmitted to it by means of a counter shaft on the thresher, or belt from the engine. The grain is conducted to the hopper by an elevator extending from the grain auger of the thresher to that of the Cleaner.



PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXVII.—No. 19.

SAN FRANCISCO, SATURDAY, MAY 11, 1889.

{ \$3 a Year, in Advance.
SINGLE COPIES, 10 CTS.



HARBOR OF APIA.



MANGOES (Mago).



CUSTARD APPLE (Sarsalupa).



NATIVE BREAD FRUIT (Maopo).



IMPORTED BREAD FRUIT.

Samoan Scenes and Fruits.



SCENE NEAR APIA.

Much interest pertains to Samoa just at this time because of the issues which have arisen between the United States and Germany as to their respective interests there, and because of the terrible storm which wrecked the gunboats of both nations and drowned so many of the seamen a few weeks ago. These facts lend special interest also to all facts about Samoa, and lead us to present herewith views of scenery and products of the famous island. We reproduce them from a book just published by a native Samoan lady, now a resident of California, of which a notice may be found in another column of this issue. The leading picture gives a general view of the harbor of Apia, where the great naval disaster occurred. It is a beautiful harbor, formed, as are all the harbors of the South seas, by a coral reef almost inclosing a large bay. The other large engraving shows much of the characteristic vegetation of the island, the tall cocoanut palms and the wealth of lower growths which thrive in the tropical climate. The smaller engravings are of some of the chief fruits of the island. The writer of the book referred to says there are seven varieties of the bread fruit, of which two are shown. Another fruit is the custard apple, which is now thriving at Santa Barbara in this State. Still another important fruit is the mango, which grows on a tree of large size and is prized both for its shade and its fruit. But besides these the Samoan islands produce a wealth of other fruits of which the book makes interesting mention, viz.: Bananas, oranges, limes, pineapples, guavas, grenadillas and a host of others. All these grow naturally, and in great profusion.

POULTRY YARD.

Dead in the Shell.

EDITORIAL PRESS: It seems a very simple performance to put eggs under a hen and let her hatch them. In some parts of the country one must indeed, in popular opinion, be a very imbecile who doesn't "know enough to set a hen." Yet where is the wise man who can learn how to do it from the contradictory, dogmatic, bewildering instructions which every spring may be found in all sorts of periodicals? Dampness is and is not necessary; eggs should and should not be turned; nests should be made thus and so and they should never be so constructed. The neophyte in poultry culture must possess considerable "horse sense" not to be led astray by so many conflicting theories.

In the good old days before the advent of thoroughbred fowls, the demand for eggs and poultry was indifferently supplied by farmers' wives. Luck was held to be of much account in chicken hatching. The relentless law of the survival of the fittest was seldom interfered with. The mongrels were hardy, because only those that clung tenaciously to life had any chance in the struggle for existence. Then came the poultry "fancier" and the vast increase in poultry breeding. New varieties, new ideas sprang up. Luck was thrust contemptuously aside. Breeders began to ask questions and make experiments. Some of the more inventive studied egg life from the embryo up, and the result was the portable incubator. Not the incubating ovens of Egypt, but a Yankee hatching machine, that can be handled and moved about, and that will do its work well, is the outcome of the early experiments and later improvements.

The object of incubation, natural or artificial, is to hatch eggs. If it does not do this at all it is a disastrous failure; if it only partially does it we may still reasonably condemn it. One wholesome fresh egg, of cash value as food, spoiled and wasted by an abortive attempt at incubation, counts for but little. But in this country, this present season, there were millions of eggs so destroyed, and their value in dollars and cents not a trifling amount. It by no means follows that if we can find the cause of this failure and waste we can also point to the remedy. That may not be yet discovered. This season, as usual, there has arisen a widespread wail that incubator chicks died in the shell. Row after row of eggs containing perfectly formed chicks all ready to hatch, but lifeless. Have you ever been there? If you have, I am quite sure you will eagerly seek to know the why and the wherefore. But, say you, some incubators are "warranted to hatch every fertile egg." Don't believe it. Who warrants the warrantor? Hens will not do as well as that, and the best of incubators will not do it, either. But whether with incubator or hens, why don't the eggs hatch? That is the question. It's a pretty big conundrum, too. The more you look at it the larger it appears. No off-hand assertion born of ignorance, such as too much or too little moisture, will answer. But this moisture point has much to do with it. I don't mean water pans, pipes, sponges, sprinklers, and what not. Take up an egg. Look at it. Do you see those minute indentations on the smooth surface of the shell? Those are pores. Your skin is covered with them. The egg shell is but the brittle skin of the chick within. These pores are little air-holes, ventilators, nothing else. Within the shell is all that is required for the formation of the chick, and there is always moisture enough originally to hatch the chick. Nature never makes any mistake of that kind. Left to itself, this egg will rot; the moisture will all evaporate, and the application of heat would naturally increase evaporation. But to be incubated the egg must be heated. How does nature get around this little difficulty? Well, look at a nest of eggs that have been under a hen for a week. Do you see that oily shine, that polished appearance of the eggs? Certainly, the hen has settled that evaporation question by closing the outlets, but not so closed as to smother the chick within. Oh, no, nature is no such experimenter as that. Make the shell air-tight and you kill the embryo just as surely as you yourself would perish if your skin were covered with varnish from head to foot.

That is nature's way. Pretty good one, isn't it? Easily imitated. Just rub eggs with hen's oil, polish it well and the thing is done. Well, suppose you try it. If you succeed, don't tell anybody, because you can easily acquire wealth by keeping the process secret. I know of several incubator manufacturers who would cheerfully pay you a thousand dollars or so for such information.

That is nature's way. Man's way is to supply moisture to the eggs, as he cannot stop its evaporation. This is a pretty good way, too. By it are hatched a great many thousands of chicks yearly. There is only one serious objection to it. It is not, as the heat is, an imitation of nature, for nature doesn't water eggs as she does vegetation. Consequently man's way is a partial failure. Steaming the egg shell makes it moist, but it also toughens it, especially the inner membrane. The chick either cannot break through or is so weak that it doesn't try, so it dies in the shell, and will die

out of it if you try to help remove its prison walls. Why some are strong enough to break out and others are not, why eggs under hens often fail to hatch, is it possible to do away with artificial moisture in artificial incubation, these and other interesting questions suggest themselves, as we consider this, to poultry keepers, highly interesting subject. I simply open the discussion and hope it may be continued in the Press.

But it only requires a few words more to say that the oft-repeated injunction to make the hen's nest moist with soda, sprinkle the eggs, etc., is sheer nonsense. Eggs set under a hen require no moisture whatever. A soft, dry nest is just as good as a soft, damp one. True, hens that steal their nests on the damp ground frequently hatch every egg. But so they often do when they crawl away into an exceedingly dry haymow.

The poultry industry is capable of a great development on this coast. Under favorable conditions it is really very profitable, and the conditions here are most favorable. But it is no child's play. It is not what some seem to think it—the refuge of incapables. Those who fail in all other undertakings will be quite likely to fail in this one. There are obstacles in the way of success, plenty of them. But they are no greater than those generally encountered where anything worth striving for is at stake, and in this, as in all our growing industries, progress is the watchword of the day.

Santa Clara, Cal.

CHAS. R. HARKER.

THE FIELD.

Grain-Farming Experiences.

Hardly two farmers agree as to the true way of putting in grain in this part of California. While the one will advocate the early seeding as the only proper one, the other will hold that late plowing is preferable, while a third party considers summer-fallow grain as the only profitable way. Again, as to the quantity of seed to be used, some will advocate 30, 40, 50 pounds to the acre, while others again cannot understand how any one can expect to reap a profit of anything less than 80 to 100 pounds to the acre. And so on in almost every department relative to the practice of grain-farming, the opinions are thus diversified. While one farmer plows his grain in, the next neighbor always seeds broadcast, while his neighbor again uses only the drill. The difference in these opposite views and practices is no doubt covered by the fact that at some time or other each one of these different farmers has had great success with some particular method. Some time the season favored some way of grain-sowing, and every farmer who at that particular time practiced that particular way had good success, while their neighbors with some other method did less well. When a man has once been particularly successful with a certain method, he is apt to persist in using the same, even if the same should prove inferior at other times. In seasons when rain is abundant, it really matters very little what way the grain is put in. Deep or shallow plowing, early or late, much or little grain, broadcast or drill, every way you like, it will bring a crop, and a good one, too. But when the rain is scarce, or when the showers of rain fall at long intervals, or when hot winds desiccate the fields, then there is apparent to any one who examines the grain-fields or the plains that there is a decided difference between some of them. The question, then, is what causes this difference, and which way of grain-farming is the safest and best in the majority of cases.

What is the reason that we one year are informed by the telegraph that, for instance, the early-sown grain is all right, and is sure to bring a crop, with one or two more showers, while the late grain is hopelessly gone? At the same time the telegraph from another section will inform us that the early-seeded grain is all gone, while again the late grain is sure to bring a crop. Thus our experience shows us every year that what proves the most successful practice in one locality under certain circumstances may in other places, under slightly varied conditions, lead to unexpected failures. It may be said with much truth that if the grain-farming would be conscientiously done always, there would be less discrepancy in the results of the different methods, and almost every failure in raising a fair or good crop, according to the season being good or average, can be traced to some neglect, oversight, or to the general tendency among grain farmers to suppose that the work even if poorly done might do.

We hear to-day very much less than 10 years ago the cry of complete failure of the grain crop. Also the area is extending on which grain crops are profitably raised every year, and rather than to think that the climate is changing in our favor, it is more reasonable, and in actual accordance with fact, that the real cause is that our farmers are learning both to understand the climates and soil most suitable to the same. To the people of the Eastern States or to the farmers of Europe it is a marvel how any paying grain crops can be raised with six to seven inches of rain, and with drouths during the growing season, extending sometimes over seven long rainless weeks. But we may also ourselves well marvel at a climate where such

a thing is possible, and it is worthy of our most careful study to find out the extent of the possibilities and probabilities of raising good crops.

The San Francisco banker, who for years insisted, and who yet insists, that grain-growing cannot and does not pay, and who accordingly values the land at nothing, is constantly put to shame by the farmers themselves, who prove to him the contrary. If grain-growing does not pay, why is it, then, that the banker, the farmer, the business man of every description anxiously studies the signs of rain, and that the very announcement of a general downpour over the State unties the strings of the money-bags? The fact is, grain farming pays more and more every year, and every year the areas of grain-fields are extended. It is the novice in the business that fails; the observant farmer does now seldom calculate in vain.

The general belief is now that the grain crop to be most successful should be put in summer-fallow ground, and many even hold that only the summer-fallow ground will pay. But this year the experience of many is quite contrary. From many parts of the State the reports inform us that the summer-fallow grain which to begin with promised exceedingly well, suffered more from the long drouth than the late grain, the later promising an immense crop. An inquiry into this reveals the following fact: The summer-fallow grain that was seeded dry before the first heavy fall of rain has suffered very much, while the grain that was seeded on the summer-fallow after the first heavy fall of rain is the most promising grain in the country. If the rain had been copious and continuous, this would probably not be the case, at least not to the same extent as now, but the fact that we can never foretell the rainfall should teach us to take every precaution necessary.

There are two reasons why the grain on summer-fallow land, even in the very best condition, should be seeded after the first rain. The seed of the wild weeds which cover the ground everywhere will then have sprouted, and the seeding, harrowing, or better, the turning over of the top soil, will kill the young plants or bury the seed that has not yet sprouted. The turning under of the wet top soil is also of immense importance, as it gives the young grain the wettest part of the soil for the roots to grow in, while otherwise the wettest soil would remain on the top and cause a heavy and early crust. It is the weeds and the crust that is the bane of every bunch of growing grain, and with them out of the way, half success is insured. With a substratum of moisture to draw on, the summer-fallow grain will stand twice as long as the grain that was seeded dry. The wettest part of the soil will here remain uppermost, and when during a coming drought the top moisture has evaporated, there is little below to keep the grain alive. The principal reason that the later-sown grain in many instances makes a better showing than the dry summer-fallow is that the wet top soil was turned under and saved for the critical period during the drought.

The depth, again, of the plowing is of great importance; but as deep plowing—five to eight inches—is now generally conceded by successful farmers as the only proper one, we can here leave the same unconsidered, with only the statement that a late inspection of the fields in the three southern counties of the San Joaquin valley fully holds out the assertion that "plow deep" should really not only be the motto but the practice of every farmer. As to the seed, it should be covered rather deep, say one-half to three-quarters of an inch or more; whether the same is done by harrow or broadcast, or by drill, is immaterial, the object only being to cause the roots of the grain to strike deep, as otherwise the first little drought will cause the shallow-rooted grain to quickly dry out.

As to the quantity of seed to put in, the most diversified opinions exist. Some advocate 30 pounds to the acre, while others would not think of planting less than 60 to 80 pounds. The fact is, 30 pounds may prove too much under some circumstances, while under others 60 pounds or more may be far from enough. Very early seeding requires less grain, as the same will start out under the influence of the cool weather, while the late-seeded grain will start less, and consequently needs more seed to the acre. On very rich and moist land, twice the amount of grain may be profitably put to the acre, as experience shows us that such land will sustain twice or three times the amount of seed that the dry land, alone dependent upon rainfall, will do.

Should we venture upon some safe rules for the guidance of the grain farmer, they would be these:

1. Summer fallow the land deep, not less than six to eight inches.
2. Reprow the land immediately after the first fall of rain, and by all means harrow well.
3. Seed on ordinary land 40 pounds to the acre, or if an abundant rainfall is certain, twice as much or more. All the grain must be blue-stoned.
4. Cover the seed well and deep.
5. If a heavy crust is formed at any time before the grain has begun to joint, break the same either by harrowing or rolling.
6. Remember that half a section well done may prove profitable, while three or more sections badly put in are likely to become a poor investment.

If these rules would be carefully considered by every grain farmer, we would have but few failures of crops.—Fresno Examiner.

What Bulk Will Weigh a Ton?

A farmer in Salt River valley, Arizona, writes to the *Phoenix Herald* concerning estimating the weight of hay in the stack. His points are interesting and we would like to have them considered in the light of California experience and to receive notes from our readers thereon. We quote as follows:

M. T. Richardson of New York, in publishing a work for use of farmers and others for measuring land, grain, hay, etc., in 1885, gave the following rules as to measuring hay in stack.

He says no exact rule can be given for measuring hay in bulk; the rules are as various as the kind of hay, its condition and the amount of pressure to which it has been subjected, and then says:

The rules for hay in general use are as follows for a ton:

	Cubic feet.
Timothy a year in mow or stack.....	500
Timothy from bottom of stack.....	400
Timothy newly stacked.....	700
Clover stacked for some months.....	700
Clover newly stacked.....	900
Timothy and clover old stacked.....	600
Timothy and clover new stacked.....	800
Common meadow hay, old.....	800
Common meadow hay, new.....	1000

These rules being those in common use should be used until proven incorrect.

Alfalfa hay of this valley comes the nearest to clover hay, although the alfalfa stack is coarser than that of clover, and would seem to take a larger number of cubic feet for a ton.

The rule that has been in use in this valley, so far as there has been a rule, has been 512 cubic feet, and the lowest number of cubic feet for a ton, as given by Mr. Richardson, for clover hay is 700 cubic feet from an old stack, and 900 cubic feet from a new stack.

The raising of alfalfa in this valley will be, for some time to come, a leading industry, and it becomes every farmer, when he contracts to have hay put up, to know how much bulk it will take to make a ton.

And, again, as this depends very largely upon the size of the stack, some standard should be adopted; say 20 feet wide and 20 feet high.

And, again, there should be a rule by which a stack should be built. The hay should be evenly distributed and the middle always kept well up, and this should be continued from the ground up, so that if water enters the stack from any defect in building, the tendency should be to the outer edge and not follow from top to bottom of the stack.

Again, some system should be adopted as to the best time of cutting and as to the manner of curing, and the condition in which it should go into the stack.

All past experience in the East in handling clover has proven that it should be cut when in full bloom, as near as may be; that it should be gathered into cocks as soon as the rake will work, and cured in cocks, rather than on the ground and in the sun.

It would be well for the farmers to see that some rule shall be adopted whereby the crop of alfalfa in this valley shall give the largest results as a feeding hay, and when sold that a purchaser shall get what he buys, both in quantity and quality.

HORTICULTURE.

The Fruit-Growers' Convention No. 3.

Lemon Culture.

The following essay was written by Dr. O. H. Conger of Pasadena, the well-known lemon-grower:

Being unable to respond to your invitation to attend the convention, per force of circumstances, I beg to submit, for use in your meeting, if of sufficient merit to warrant it, the following hasty suggestions founded upon my experience in the propagation and culture of the lemon and lemon tree.

Twelve years ago there was but little if any reliable data available upon this coast relative to lemon culture. The orange was the only citrus variety of fruit that attracted general attention or was discussed with the new-comer. Finding, however, that climatic and soil conditions favored the lemon culture equally well with that of the orange, and being entirely ignorant of the requirements of both, the writer regarded the joint experiment with as little distrust as that of the single venture. But upon diligent inquiry there were no lemon trees to be obtained, yet as good luck would have it, a few young bearing trees were found that had been grown from cuttings or slips, and taking advantage of this ocular demonstration of the possibility of the future in this culture, several thousand cuttings were secured and put out in the most thorough manner that the skill of a novice could suggest.

Growing Lemons From Cuttings.

The method adopted and the results obtained in this initial trial, will, no doubt, be as interesting to those present, if not the general public, as any effort of the writer for the present occasion.

The cuttings already referred to were made

from the last growth and matured wood of young bearing trees and in size from one-fourth to one-half inch in diameter, and from 12 to 15 inches in length. The time of cutting them from the tree was during the most dormant stage of sap flow, which is readily determined by the tenacity with which the bark adheres to the wood, or, in other words, when the bark will not peel or slip, hence budding is always deferred until the bark slips. Cuttings, therefore, should never be cut from the tree when the sap is flowing, but when obtained, they should be healed in moist sand until May or June, the two best months probably for putting out, owing largely, doubtless, to the greater warmth of the soil at this season than earlier, a condition highly favorable for early promotion of rapid growth. All citrus trees require warm, moist soils while young as well as in more mature years.

Setting the Cuttings.

The most favorable soil in which to start the cutting is unquestionably a sandy loam, possessing, as it does, the power to retain moisture as well as to supply plant food readily. Less fertile soil, however, may be made to answer every purpose by enriching the surface and a more frequent use of water. Dig a trench one foot deep and the same width and with a tamping tool made of a 2x4 scantling pound the bottom of the trench until it is solid and firm, upon which place the cuttings solidly 15 inches apart, and haul back the earth thrown out, four inches deep about the cuttings as they are placed in position, and when the setting is completed tamp this four inches of earth about them as thoroughly as though each one was a post. This is to insure their starting, as cuttings of all varieties of plants or shrubs fail to grow unless the earth is firmly packed at its base or at some point above not far from it. Again haul in four inches more of earth and then fill to the surface with water and four or five days thereafter complete the filling of the trench with earth and then mulching with fine material the surface, and but one other irrigation will be required for the season unless cultivation is neglected and weeds are permitted to sap the moisture in the soil.

By adopting the foregoing method a growth of two to four feet will be obtained the first year, and the second year in June many of the strongest growers can, with advantage, be placed in the orchard.

Digging the Trees.

A practice has been followed by many to cut away the radical or tap-root of both the lemon and orange tree when taking them out of the nursery for transplanting. While this may facilitate to a certain extent the handling, it is greatly at the expense of the already stored energy of the plant, as well as unnecessarily, greatly abridging its capacity to recover from the shock sustained. The experienced eye readily detects the area occupied by the roots of the young tree by the size and shape of its top, and is therefore guided in his efforts to preserve the roots from harm while digging to remove it. Not only should the roots be saved harmless when removing the young tree from the nursery row, but also from the sunlight and drying atmosphere by wet cloths being immediately put over them as they are taken out. The holes having already been prepared to receive the trees, further shaping may be required to accommodate the size and form of root surface, especially the radical or tap-root, by pointing a piece of inch gas pipe, if nothing else is already provided for the purpose, and drive a hole from the dug portion deep enough to receive the full length of this tap-root. By thus restoring, as far as possible, the full capacity of the root surface, the vital energy is little (or less) taxed in renewing its full functions under the laws governing plant life. Another important consideration in this connection is to carry nothing but fine clean soil down about the roots with a small stream of water instead of shoveling in indiscriminately everything present and treading with heavy boots the soil about the roots. After completing the work thus far, three or four weeks can elapse before again irrigating, which should be very generous, and will also suffice for the balance of the season, supplemented from time to time with thorough cultivation. Indeed, no subsequent irrigation will be necessary until the tree has reached the age of fruiting.

Soils for the Lemon.

Different opinions prevail respecting the most suitable soil for the lemon, and the expression of best soil is too often localized, and many times, possibly, for unworthy purposes. However, the fact of the more delicate and sensitive nature of the lemon than that of the orange tree, suggests at least somewhat different conditions for the lemon than experience teaches us is acceptable for the orange.

The sandy, gravelly soil, with a fair amount of humus as a constituent, is probably nearest a typical soil. Such soils are controllable, yielding or withholding plant food at the bidding of a skillful manipulator.

An orchard of lemon trees so favorably disposed needs only directing. The day of putting forth its bloom, the ripening of its fruit, as well as anticipating the needs of the markets, and consequently highly remunerative prices, are all foreshadowed under so favorable a set of circumstances.

Sandy soils supply sufficient moisture by frequent cultivation to sustain the life of the lemon tree perpetually independent of artificial irrigation, while in a clayey or stiff soil, in the same period of time, they would succumb.

Double the expense also will be required to reach results in the stiff soils that are requisite in the sandy soils, besides the objectionable feature also of inferior quality and other economical values.

Fertilizing poor soils to meet an apparent demand is a matter of judgment and discretion, but too rich a soil for the lemon, especially of the clayey class, leaves little discretionary power in the hands of the manipulator. The overgrown, coarse thick-rind product is ever present. Water becomes the arbiter to decide the blossom period of the lemon in sandy soils. Irrigation postponed until the months of July or August secures marketable lemons ten months hence, and limiting the curing process to two and three months thereafter, brings them into market when most desired, and also at top prices. The economical requirements of water in sandy soils has a great advantage in many ways also over the clayey soils, which is of marked interest in many sections.

Cuttings vs. Seedlings.

The experience of 14 years in the lemon industry has also demonstrated to the writer the practicability of growing as thrifty fruit-producing trees from cuttings as from the seedling or by budding, and at a considerable saving of time and money. May and June are good months to propagate the cuttings, as the soil is then warm, which is an indispensable condition to prevent the sap souring or the cutting molding at its base where the cicatrix is forming preparatory to the manifestation of the function of cell growth, or the commencement of life of the future plant.

As to the variety of lemon to propagate, with all due deference to other varieties, the Eureka stands as the present favorite. The bearing age from cuttings commences at the third and fourth years. The Eureka is also nearly a thornless tree, and the lemon carries fewer seeds than most other varieties.

Pruning the Lemon.

In regard to shaping the form of the tree by judicious and timely pruning, there can be no very arbitrary rule laid down, for in sections frequented by strong winds the shaping of the tree should be almost entirely different from that in localities more fortunate in this respect. Exposed or liable to wind storms, the limbs should be permitted to form within two feet of the ground, and continually cut back so as to encourage short unyielding arms to bear the fruit; whereas in protected localities shoulder the limbs four and five feet up the bole and encourage low spreading tops for the double purpose of shading the ground and facilitating the picking of the fruit; and in case of the necessity of spraying, a great additional advantage will also be secured in reaching all portions of the top at much saving of expense and trouble. Frequent pruning of the lemon tree is less a necessity than that of the orange, and should be confined more to the shaping than thinning out, unless infested with the scale pest.

The size of the lemon is due principally to two causes. The overgrown size results from overfeeding the product on the tree in making soluble the food by excessive use of water, whether there be a more or less prolific crop. The under size, on the contrary, is either due to starvation by neglect, or a diseased tree, or both, for it is well known that the reproductive powers of the tree are largely increased when attacked by disease, which can be demonstrated by girdling the trunk or large limb of a tree at an immature age. Oranges can thus be produced from a seedling tree at from five to seven years of age.

The Market Lemon.

The processes are various for preparing the lemon for market, but the first injunction is to handle them most carefully at the time of picking, for the very important reason that if the rind of a lemon is abraded at first handling, while gorged with its acrid secretions, the oxygen of the atmosphere tends immediately to excite a depraved condition at the point of injury, the same as would occur in man or the lower animals, and to this carelessness is almost invariably due the decay of fruit.

To obtain the lemon from the tree entirely free from injury is the first great requisite for future success in curing, and when so received at the place for carrying on the future treatment, all subsequent handling need involve but slight risks from the packing-house to the market. The first, and probably the safest method adopted by the writer, was to spread coarse litter from the barnyard, straw-piles or leaves about in the shade of each tree, and pick and make shallow piles upon this straw floor, and permit them to remain undisturbed from one to two weeks, owing to the dry, hot or moist and cool condition of the atmosphere, before removing them to the packing-house, and by this means alone the loss was reduced to the minimum, and also what few were injured were at once rejected, saving the balance from inoculation by the decay already set up.

When to Pick.

The best qualities of the lemon will be preserved by picking as they commence to color. At this stage of development they have received all that the tree can impart, and not before.

Others, however, advocate picking when they attain a certain size, measuring by arbitrary standards, regardless of degree of development. But as before stated, size should be controlled by soil and treatment.

The fine, delicate flavor of the juice of a lemon that matures on the tree, and is properly

cured by process thereafter, is readily distinguished from the marketable immature sample, besides yielding a larger amount of juice and citric acid. As to the demands of commerce in regard to size for fancy prices, a lemon weighing from three to five ounces two or three months after picking, and measuring from 2½ to 3 inches from blossom to stem end, with a nearly uniform diameter crosswise from 2 to 2½ inches, will fully meet all of the desired requirements.

Curing.

The varying processes followed by those engaged in this industry differ more in detail than in principle. To the experienced or the person of keen judgment, but little can be suggested, as each locality has conditions of temperature, moisture, etc., peculiar to itself in many respects, which possibly militates for or against a practice acceptable in another section. A good method, to say the least, is to first leave them under the tree, as above stated, to wilt and toughen so as not to readily receive injury by rough handling, which they are liable to with the available and usual help employed. Removed to the place for storing during the curing period, they can be placed upon trays so made that in single layers they can be piled one above the other without risk of injury by pressure. Thus disposed and placed in rooms as much protected from light as possible, cool and well ventilated, they can be carried in this condition with but a trifling loss, for months, if desired, that the best market may thereby be secured, and no more desirable lemons can be put upon the market from any portion of the known world than can thus be produced upon thousands of acres throughout Southern California. And when we fully begin to realize the unnecessary drain upon our country of from \$5,000,000 to \$10,000,000 annually for lemons alone, and our virgin soil capable of yielding this enormous revenue still unoccupied, it should arouse the people of this unrivaled section of the State to immediate, thorough and persistent endeavor to grasp this vast income in the near future. It is not only within the reach of thousands to participate in this prospective wealth, under the rich endowment Nature has bestowed in soil and climate, but also a rich legacy for posterity in perpetuity.

[Other essays read at the National City Convention will be given in later issues.]

AGRICULTURAL ENGINEER

Plans of the California River Commission.

William Hammond Hall, State Engineer and one of the examining commissioners of rivers and harbors in California, was appointed a committee at a recent meeting of the board to draft a memorandum for the general guidance of the board in its consideration of the subject of its labors. In his report, which is quite long, he reviews the obligations of the Government of the United States to its citizens, and its jurisdiction over the navigable rivers of the country. But the policy of the Government in ordinary improvement matters being based solely on the idea of promoting the interests of commerce, only holds in view the betterment of navigation facilities and gives no attention to the great arterial drainage problems which confront our people. The Government has never done anything toward the betterment or preservation of the flood-carrying channels in this State, but on the contrary, it has encouraged practices which have damaged its rivers in this respect.

The report, after showing the duty of the Government in the premises, says:

It is absolutely impossible to compass the control of floods in the great central valley of California except through the agency of works and regulations carried out and administered by some general power having authority over the whole. The State may co-operate and property-owners may contribute and assist, but it would seem that the National Government alone has the scope of power sufficiently great to take the initiative and maintain the requisite general authority.

The report then shows that the general laws of the United States are inadequate to give California the relief she needs, cites the course of Arkansas, Mississippi and Louisiana in procuring the creation of "The Mississippi Commission" and the inauguration of a new national river policy, which has wrought wonders in the Mississippi river, and proceeds to show that there is a necessity for such national action for California. But this matter is not understood at Washington, and it is the object of this commission to make it understood. Mr. Hall says:

The merits of causes such as that which California has to urge respecting her main rivers are not adequately presented at Washington. Our Congressmen are at as much disadvantage in this special cause as are the military engineers in the cause of river improvement generally.

There is wanted in Washington an authoritative professional representation of the technical and equitable phases of our local river problems and State claims to National action in solving them. Such work need in no way conflict with the work or reports of the Government engineers, nor with the efforts of the State's repre-

sentatives, but should supplement each. The commission should attempt such representation, and for this purpose it should prepare itself:

First—To forcibly present and make clearly apparent the equitable claims which California has to special consideration at the hands of the National Congress in this regard.

Second—To show the extent and nature of the land, municipal and commercial interests involved and the probable extent of benefits derivable from a successful treatment of our rivers.

Third—It should outline in general terms the engineering possibilities of the several river navigation and arterial drainage problems, and present general estimates of cost of the greater works and of each improvement as a whole.

Fourth—It should illustrate the entire subject with maps designed and drawn especially for exhibition and as the basis of argument at Washington.

Fifth—It should prepare synopses of existing data and arguments, and generally brief the cases for the use of our representatives at Washington.

Sixth—And finally, its members should serve as professional advocates in explaining and presenting the cases to our members and Senators and others.

The report sets forth that no extended and expensive surveys and field examinations are necessary, the past work of the State Engineering Department being directly applicable to the uses of the commission. Mr. Hall says that the points to be made by the commission are:

First—That the rivers shall be taken in hand rationally for their betterment in each drainage basin to perform every legitimate function required of a river.

Second—That a special exception in national legislation be made in their favor in matters of administration and treatment, because of the peculiar circumstances recited.

Third—And that enough money be appropriated annually by Congress to keep the work going at a due and proper rate.

The report then shows that the Board of United States Army Engineers working under the "Biggs debris" law can accomplish only temporary good, and declares that what is wanted is a permanent Federal commission of engineers to manage and improve the California rivers.

As to the immediate work of the State Commission, Mr. Hall says:

Our consideration of plans should be for the presentation of engineering possibilities only and the formation of general estimates of probable cost, which can be readily done without going into details of methods or espousing and advocating special lines of river or arterial drainage treatment. With this idea, in my judgment, it will be well to confine our surveys for the most part to local re-examination of the main rivers to see what changes have taken place since the State surveys of them were made eight or ten years ago. * * * We shall be compelled to consider the extent of damage to the main rivers already affected, however, to illustrate the necessity for actively dealing with the river conditions as they now exist. As to other rivers than the Sacramento and San Joaquin and their tributaries, and as to the harbors, the law makes it obligatory upon us to examine them if called upon so to do by the Governor, but not otherwise.—*Chronicle*

Honey, Etc., in Ventura.

EDITORS PRESS:—The rains of March put to flight all fears of a drouth, and crop prospects are very encouraging. The hay harvest has begun and there will be an immense crop out. Corn and bean planting are nearly over, and many large fields are up and looking finely.

The outlook for honey is good, providing we have the two things needful to insure a flow of this delicious sweet, viz.: balmy, dewy nights and warm, quiet days. Without these, flowers bloom in vain for bees to secure a surplus. East winds and heavy fogs are death to honey-producing flowers. Some years we have had abundant rains and a magnificent profusion of flowers, but the weather necessary to secrete the nectar was lacking, and no honey was secured. Of course rain is the first essential. That we have had; now we wait only on the weather.

At present bees are barely making a living, as we've been having some east wind and lately some fog; but we hope it is over and honey-producing weather will attend the awaiting hives—not bees; they do not wait, but work on till their honey is gone. In the meantime the bee-men are getting ready for the harvest they hope for. S.

Fillmore, April 29, 1889.

BEING TOO HONEST A FAULT.—A Yorkshire coal-dealer has hit upon one of the most novel as well as most effective schemes for advertising of the present century. He has a weighing machine which gives over instead of under weight; and, although warned by the authorities that it was as illegal as the one that does the other thing, he persisted in its use until a fine of 5s. and costs resulted, the bench expressing the opinion that it looked a little hard to punish a man for cheating himself to benefit his customers. He paid the fine, and has the bulk of the coal business in his parts.—*Grocers and Cannery Gazette.*

PATRONS OF HUSBANDRY.

Some Things in Our Grange Edition.

In our Grange Edition to-day the following matters of interest are mentioned at more or less length:

The Grange seal.
New Hampshire State Grange.
A Good Appeal to Grangers.
From Gilroy.
A Musical Committee.
From Tangent, Oregon.
Tidings from Old Polk.
Programs for Pomona Granges.
Objects of the Grange.
Counsel from Oregon.
Woman's Work in the Grange.
Gone to Europe.
Picture and Sketch of National Master J. H. Brigham.
The Farmers' Organ.

Grange Meetings.

California.

Yuba City Grange Picnic.....May 14
San Joaquin Co. Pomona, Lodi hall, Lodi.....May 25
Bennett Valley Picnic.....May 25
Butte Mt. Pomona, Masonic hall, Yuba City.....June 29
Sonoma Co. Pomona, Santa Rosa.....July 17
State Grange, Sacramento.....Oct. 1

Oregon.

State Grange, Salem.....May 28
Dallas Grange Picnic, Luckiamute Falls.....June 7-8

SUBSCRIBERS who are Patrons, or feel interested in the Grange should bear in mind that, upon application, they can receive the Grange edition of the Pacific Rural Press, containing two or more extra pages of Grange news, in place of the regular edition, without extra cost or the loss of any considerable amount of valuable reading or advertising matter.

Alameda and Santa Clara County Grange Picnic.

Arrangements are nearly completed for one of the largest and best Grange picnics probably ever announced in these counties, to be held at Alvarado (on the narrow gauge railroad), Saturday, May 25th.

Governor Waterman has accepted an invitation to be present unless for some reason unavoidable he is detained by official duties. Joaquin Miller has also been invited with good reason to believe that he will accept.

Short speeches will be made by experienced Grangers, farmers and other able speakers. An excellent brass band will be in attendance, and young folks and old folks will have a good chance to march or trip the "light, fantastic toe" to stirring music.

It is hoped there will be a large attendance of farmers and their families and friends from throughout both counties and neighboring towns and districts. All Patrons, far and near, are specially invited.

The grounds are close to the railroad station, comfortable and very convenient. The fare from Oakland and San Jose for the round trip will be 75 cents or less for adults, with corresponding rates for children. Let each Grange and every Patron make an immediate and active effort to advertise and canvass for a large turnout. It is specially desirable to have the picnic a personally agreeable and happy affair and as effective as possible in increasing the good reputation and membership of the Order. A more complete program and notice will be given next week.

The Contrast.

Farmers should be greatly interested in the construction of the belt line of railroad around this city, which will prevent the expense and save the time of drayage where produce is conveyed hither by boat. The completion of the Nicaraguan canal, with the saving of time and less liability to wreck, will also be a great boon to our Pacific Coast farmers. It will do more toward cheapening freight than two Interstate Commissions. After our country has become thickly populated and rivalry or government ownership shall have reduced the freight rates so that the products of the soil can be conveyed to distant regions, the owner of enough acre property, say 20, to support his family, will be in a position, except for snobbery, equal to the English land-holding lord. Get your boys into the Grange and teach them this so they will not foolishly rush into the already overcrowded city to struggle with the hundreds of applicants for a book-keeper's situation or a \$10 per week clerkship. After spending their best days here in "furnished rooms" or a tenement-house, toiling like slaves, subject either to the caprices of employers or the bosses of the unions, unable to work, they find themselves when they have reached

that age when they should have a competency, without money, home or friends. The boy who remains on the farm may have a little rougher time than his companion who seeks the city, but his work gradually becomes easier as the city lad's becomes more irksome, and later on he has a home, a comfortable living and works for himself. Remain in the country, acquire land, till it well, and when land becomes harder to obtain you will be the American lord and the book-keepers will flock by the hundreds to obtain the position of your private secretary.

Co-operation in England.

In England the principle of co-operation is stronger than in the United States. We are indebted to Secretary J. T. Cobb of Michigan for a quantity of English literature on this interesting subject. We will give a list in brief of the titles and the address of the publishing companies, and we presume our readers, by sending them a small remittance for extra postage in addition to the regular price, can obtain them and other important publications on co-operation in England. The following are published by the Central Co-operative Board, City Buildings, Corporation street, Manchester, England; The Lord Bishop of Durham's Inaugural at the Co-operative Congress in Newcastle on Tyne, May 17, 1887, Lecture by Thos. Hughes, Q. C., on the History and Objects of Co-operation, Association Farming, Inaugural of Rt. Hon. W. E. Baxter, M. P., at the Edinburgh Co-operative Congress, How to start Co-operative stores, the Economic Aspect of Co-operation, read by E. V. Neale, M. A., at the Derby Congress, 1884, Co-operation and the Perils of Credit, a translation from the French of M. Godin's lecture, "The Association of the Familistere, at Guise (L'Aigle), France, delivered at Lousanne, Switzerland, Association and Education, what they may do for the People, by J. V. Neale; Leclair, a lecture by W. H. Hall, 1880, the Fundamental Principles of Co-operation, by Mrs. A. Greenwood, Rochdale, the Principle of Unity, the Life of Co-operation, 1875, Educational Funds, and Some of the Weaknesses of Co-operation. Truebner & Co., 60 Paternoster Row, London, and the Co-operative Printing Society, 17 Balloon street, Manchester, England, also publish Geo. Jacob Holyoake's Logic of Co-operation in 1873.

Co operation is one of the strongest needs of farmers. It is almost the corner-stone of the Grange, we hope all Patrons will take an interest in the subject. At the last meeting of the State Grange the following committee on co-operation was appointed: O. F. Alley, San Jose; E. R. Elliott, Lodi; J. W. Mackie, Tulare; Sister E. Z. Roache, Watsonville; and Sister Mary S. Smith, Yuba City. We have sent these books to Bro. Alley for the use of his committee. We hope the chairman will write up an article on this subject, or induce his associates to do it. We hope that the committee will be a working one, and that they will formulate and present to the next State Grange a plan which can be brought into effective working for this State. Any of the authors mentioned in the above list would probably be happy to give any desired information. We learn that our Worthy Lecturer and his wife will sail from New York to England May 28th. We presume they intend to make the tourist's expedition an important field of observation during the coming months, and we would suggest that the Worthy Lecturer put himself in communication with Geo. Jacob Holyoake, 20 Cockspur street, Pall Mall, London, S. W., who is a patriarch in co-operation. No doubt, as in times past, he will respond to the inquiries, by mail, of any Patron who is interested in this subject enough to see correspondence and books regarding the same. He is one of England's real benefactors.

Going to Europe.

By daily newspaper authority, we learn that Worthy Lecturer Flint and wife will sail from New York for Europe on the 18th, intending to visit the Paris Exposition as well as various parts of Europe. We are sorry to spare the Worthy Lecturer at this time, but hope that he and Sister Flint will have an enjoyable time, which their good works justly entitled them to. Mr. James Hutchison, nurseryman of Oakland, a long-time friend of Bro. Flint, accompanies the party.

We hope our readers will have the benefit of regular correspondence from Bro. Flint during his absence, and that he will return in good time to attend the State and National Granges in California. Few can carry abroad so many hearty good wishes from Grange and home acquaintances as Bro. and Sister Flint.

Voting Together.

MESSRS. EDITORS:—In your issue of April 13th, Bro. L. B. Anway of Seattle, W. T., wants me to explain in this paper what is meant by voting together. I meant just what I said in my address at Stockton, February 6th, when I said, "We must vote together." I was addressing a large public meeting, composed mostly of farmers, and was trying to impress upon their minds the importance of organization; that all other classes were organized, and not only working together, but voting together; that this country had been run by monopolies and trusts about long enough. If the tillers of the soil and the working classes of this country ever get any relief from the excessive taxes heaped upon them, and be represented in Congress and the different Departments, especially that of the Secretary of Agriculture, where they are justly entitled, it will be when they "vote together." Unless the political parties of this country grant us a part, at least, of what belongs to us, I, for one, shall advocate forming a new party, called the Farmers' and Working-men's party.

This idea of talking against monopolies and trusts 364 days in the year, and on the 365th going to the polls and voting for them, is an insane one. We need more education politically. Our public speakers should dwell more upon political economy. All will admit that the politics of this country are ruling the country to-day, and why should not our people be educated more politically, both to work together and "vote together."

I do not advocate the idea of talking partisan politics in our Granges. This, of course, is strictly forbidden.

It is said that four only of the 401 members of Congress are farmers, and it is also stated that two of these are sidewalk farmers. Now, farmers of America, I appeal to you in all seriousness, if such a state of things should longer exist? You pay 70 per cent of the taxes, and have brains enough to run this Government, from President down, and very seldom get even a clerkship. I repeat to you General Sheridan's order, given to his retreating army, as he met them on his Winchester ride, with his black steed covered with foam and dust, "Face the other way, boys! Face the other way! We are going back!" The order was instantly obeyed, and the battle won. So I say to you, farmers, "Face the other way," and go to the polls and "vote together." Then, instead of having only four members in Congress we shall have a majority.

Pleased with Both Papers.

Brother Dewey, I want to congratulate you upon the bright appearance of the Rural Press and California Patron. I read them with a good deal of interest, especially anything from the eight Granges that I visited—Sonoma County P. G., Bennett Valley, Tulare, Merced, Stockton, Sacramento, San Jose and Temescal. I am rejoiced to know that they are all on the high road to prosperity, as well as all the Granges in your State, and if the National Grange meets in California next fall, I want to see at least 10,000 Patrons. California should go ahead of Boston, for there, even Tremont Temple would not hold half of the multitude. W. M. Overhiser, W. L. Flint, you should at once put 200 workers in the field and bring every farmer into the Grange, so that nothing but a massive tent will hold the audience next November.

S. C. CARR,
M. Wis. State Grange.

A Visit to San Miguel.

MESSRS. EDITORS:—Having become somewhat tired of vineyard work, I thought I would take a day off, and not knowing of a better place to spend it than at the Grange, I visited the Grange at San Miguel with my wife and daughter, where we had the pleasure of meeting a number of our sister Grangers. Although but lately organized, we found them all alive to the best interest of the Grange. They conferred the first and second degrees on a brother, and the work was well done. When they get their working tools they will be able to do more impressive work. I would be pleased to see Paso Robles and San Miguel Grange members meet and exchange fraternal greetings at every meeting of their Granges. There is enough material here to sustain two large Granges, and the day is coming when every farmer in the land will be in the Grange. The country is in a flourishing condition.

Paso Robles Grange meets May 11th. All members will be present, as some fine talking will be done. Fraternally yours,
D. F. STOCKDALE.

Paso Robles, Cal., May 6, 1889.

Visitors to Oregon.

One of the great advantages of belonging to the Grange arises from the interchange of thought. Those who get the most good from the Order are those who attend every meeting. The interchange of visits between subordinate Granges is mutually beneficial. When all meet together in State Grange there is a charm and pleasure that must be seen; it cannot be exactly described. In a higher degree, visits to State Granges in other jurisdictions are profitable. The time of holding the Oregon State Grange at Salem, May 28th, draws near. Last year the Order increased in new life and manifested itself at the State session. Readers of the Press and Patron have seen that vigorous new life wax strong. We believe the present year has been one of prosperity and it will be found at the annual conference that the business arm of the Order has been strengthened during the year. As we gain new ideas of great advantage by calling upon other Granges than our own, so Californians may learn much by studying the work and methods of their Northern sister. As the combination of two Granges makes both stronger, so the union of two State Granges will add to the effectiveness of their work. California and Oregon, adjoining each other, affected more or less by similar needs, the chief representatives of the Pacific Coast, should always make it a point that the State Grange of the one should have its visiting delegation from the other. The little group of Californians who attend will try to be good listeners, not talking much, and hope and expect to gain much good information of benefit to our own work while there, and if they can make themselves helpful in any manner to the friends they visit it will be an extra satisfaction. We anticipate much pleasure in touching hands with the true and faithful in Oregon, and trust that the coming year will prove very profitable, as we are confident it will be pleasant, that the fraternal assistance will be so agreeable to both parties that there will be an increased attendance at the future sessions of both State Granges.

San Lucas Grange.

MESSRS. EDITORS:—By request of San Lucas Grange I attended their meeting on the 4th inst., to assist in the conferring of degrees and render such instruction in Grange work as they might require. This Grange, as you are aware, is a new one formed in a new and prosperous district. Accordingly, as might be inferred, the members have not all been well drilled in the work, but their zeal counterbalances all other shortcomings. I had not been apprised of the exact hour of meeting, but supposing that it would be in the afternoon, I arrived in San Lucas about noon. By this time the good Patrons had begun to assemble from all directions, and an hour later, by invitation of the Grange, I called the meeting to order, and the third and fourth degrees were conferred on three candidates. After the degree work was completed a bounteous Harvest Feast was spread in the center of the hall, around which all the Husbandmen and Matrons, together with invited guests, circled and indulged their appetites to satiety on the substantial and delicacies of the farm.

Under the head of "Good of the Order" some timely and sensible remarks were made by a number of the members.

The sisters and brothers have pluck. They have held weekly meetings since the organization, but will meet semi-monthly through harvest-time. The Grange has a choir of good singers, which helps very much to enliven the meetings. A number of new applications for membership are expected to be received soon.

Already it is thought a good influence is being felt throughout the neighborhood as an outgrowth of the Grange meetings, and doubtless much benefit will ultimately be experienced, especially by the young people who are uniting with the Order at San Lucas.

F. B. L.

San Lucas, Cal., May 6, 1889.
[Bro. Logan may well be proud of the first new California Grange organized through his efforts, and we all rejoice with him.—Eds.]

Attention, Grangers!

There will be a meeting of Gilroy Grange, No. 168, P. of H., at the Masonic hall, Gilroy, Saturday, May 11th, at one o'clock sharp. Deputy A. P. Roache and wife of Watsonville Grange and visiting members from San Jose are expected to be present, together with others. It will be an interesting occasion, and all Patrons are requested to attend. Patrons from neighboring Granges are cordially invited. The Order is developing new strength every day; let us keep up with the procession.

San Jose Grange.

Master O. F. Alley called the meeting of the Grange to order Saturday afternoon, and, after conferring the degrees upon a lady candidate, proceeded to consider the report of the committee appointed to interview Assessor Spitzer in the matter of assessing fruit-trees and vines. The committee reported that they were given a hearing and proceeded to state their case, calling his attention to the recent decision of the Supreme Court in which trees and vines were classed as growing crops; also the Act of the Legislature at its last session, in which growing crops were particularly defined as including fruit, nut-bearing and ornamental trees. Mr. Spitzer was asked why he was continuing the assessment of trees and vines against the provisions of the authority quoted.

Mr. Spitzer replied that he was proceeding with the assessment in accordance with instructions received from the State Board of Equalization, which directed him to ignore the law last passed, which they stated was unconstitutional. They did not so state, but he supposes they had conferred with the Attorney-General, and was acting in accordance with his opinion. He said he wished it were possible to omit the trees and vines from the roll, as it made a great deal of labor to include them, but he considered the order of the State Board as binding on him, and thought it safest to do as he was doing. He gave the committee to understand that he would not change his methods of assessment.

Mr. Pettitt read an article from the *Herald* reviewing the situation. It seemed to him, he said, that the law was very plain and that the Constitution gave the State Board no power to pass upon the validity of the laws.

Capt. Dunn said he failed to see what the State Board had to do with the assessor. As he understood it, they had no power to give directions, except as to matters of form when the law was silent.

S. P. Sanders read the text of the late decision of the Supreme Court declaring trees and vines to be "growing crops," and of the law as passed by the Legislature.

The matter was referred back to the committee, and they were directed to ascertain the cost of having a test case put through the courts, so that the validity of the law might be judicially determined.

Mr. Brainard asked the members to be watchful over the depredations of several kinds of worms that were eating leaves and fruit. One kind was the canker worm, or measuring worm, on apricot, cherry and prune trees. They spin a web when shaken from the tree. The best way seems to spray the trees with London purple, the same as for codlin moth. The maggot of the sawfly troubles the leaves of the pear tree somewhat and should be treated the same way. Cut-worms are doing great damage in some vineyards. Sulphur will not kill them, but it is said they will not trouble sulphured vines greatly. Bits of cabbage or lettuce leaves dipped in a solution of Paris green or London purple and spread among the vines at night or in a dark day will kill thousands of them. A mixture of two parts ashes and one of lime will do much good about the stem of the vine. Mr. Brainard called attention to the cottony cushion scale, and advised it to be washed off the rose-bushes and trees once a week with a strong jet of water, and prevented going up the trees again by a band of tar or printers' ink. It can be held in check this way with least injury to the bushes and trees, and nineteen-twentieths of all that are washed off will be killed.—*San Jose Herald*.

A Railroad Victory.

Neither do farmers nor their representative Order, the Grange, believe in dealing unjustly with railroads; they are willing the common carriers shall have fair profits, but do not want them to kill business by extortionate charges or unfair discrimination. If it be true that the Pensacola & Atlantic R. R. was treated by Florida as corporations often treat a State, no Patron will feel sorry that they have won a victory as recorded in the following Pensacola, Fla., special of May 4th:

The Supreme Court of Florida has rendered a decision of vital importance to railroad corporations. The Board of Railroad Commissioners in 1887 fixed rates for the Pensacola & Atlantic Railroad Co., which the company asserted were too low to enable it to earn enough revenue to pay its operating expenses, and it refused to adopt the rates fixed by the commission. The State brought suit against the railroad to recover penalties, and obtained a judgment in the lower court for several thousand dollars. The railroad company appealed. The Supreme Court now reverses the judgment of

the lower court, holding that the reduction by the Legislature or commission of rates of a railroad to a point too low to permit it to earn operating expenses is a deprivation of property without due process of law and without just compensation, and is confiscation and in conflict with the State and Federal Constitutions. This is the first decision of the kind by a court of last resort.

From Deputy F. B. Logan.

MESSRS. EDITORS:—Since my attendance at the Deputies' meeting in your city, I have been traversing the hills and dales of eastern San Luis Obispo and Monterey counties. The landscape everywhere blooms in high promise of an unusually good harvest of grain. Live-stock gambol amid luxuriant grasses of every kind native to the country, and all are fat and sleek. The orchards that have attained sufficient age to bear are overloaded with fruits. New dwellings meet your gaze at every turn, indicating the late occupancy of the public domain by stout-hearted, industrious homesteaders, and no intelligent observer can, for a moment, doubt that a few years will witness still more surprising changes in the direction of material improvement. At present the settler here has many inconveniences and burdens that the older portions of the State are not called upon to bear. He is a long way from rail communication and from the lumber markets. The blessing of a daily mail is not enjoyed by many. The market price for ranch products (when there is any price at all) is inadequate to justify the labor and expense involved in their production. Many of the settlers are cramped with debts to the merchant, and the land to which they have secured deeds, mortgaged to the money sharks. These are conditions that in a measure are shared by every new settlement, and dark as the picture would appear, time will doubtless expose the silver lining.

Besides the model plantation of Hon. J. V. Webster, briefly described in a previous communication, there are a number of gentlemen in the vicinity of Creston who are making their labors tell to great advantage in practical culture and the adornment of the landscape. Of this class I might mention Messrs. Gruenhagen (one of the early homesteaders), E. L. Kruess, Geo. S. Wilson and J. W. Slack. The latter is the gentleman after whom Slack canyon was named. His homestead is five miles south of Creston among what is termed the brush hills. The success he has met in fruit culture demonstrates how well the locality is adapted to the business. Some trees show a growth of from seven to twelve feet attained last year.

Starkey.

At the confluence of the Cholame and San Juan is the settlement called Starkey. It is about 20 miles east of Paso Robles. Much attention is given to grain-raising, though fruit-tree planting is beginning to be the order of the day. The place supports two stores and a blacksmith shop. There is here a neat schoolhouse also. The best-improved farms hereabout are generally those of the small holdings. At the home of W. T. Sheid, a few miles west of Starkey, are some remarkably fine fig trees in his well-attended orchard. Mr. Sheid was among the earlier settlers of the Estrella. I saw one of his fig trees which measured, one foot above the ground, 58 inches in circumference. I passed a pleasant day with J. W. Short and his neighbors among the foothills near Cholame postoffice. Everything looks as prosperous as could be expected in that region.

Parkfield.

Twenty miles northeast of San Miguel, at the head of Cholame valley, in Monterey county, is situated Parkfield, a picturesque locality, the landscape being adorned with wide-spreading live and white oaks. The Government lands are nearly all located by settlers, and the large cattle ranches are in some instances being leased or bought up in smaller tracts and more farming is being done. I just learned that a Mr. Sherwood of Lake county has leased 6000 acres of Cholame grant-holders, and will commence soon to plow it up with steam plows. The land will be sown to wheat. The petroleum-oil wells, lately discovered within a mile or two of Parkfield, bid fair to become a source of great revenue to the enterprising projectors of the scheme. The well is ten inches and has reached a depth of 400 feet; men are constantly employed in sinking deeper. Mr. Raymond is the manager. There are about 5000 acres filed upon as oil claims under the placer mining laws of California.

I made an effort to organize a Grange at Starkey, and also at Parkfield, but while I found more than the requisite number necessary to fill the charter who were in sympathy with the movement and expressed a

willingness to join the Order, the tightness in money matters proved an actual barrier to my success, lacking a few of completing the number to organize; doubtless good Granges can be formed at both these places after harvest is past and a little money is again put in circulation. F. B. L.

Parkfield, April 30, 1889.

Worthy Master Overhiser's Loss.

About 10:30 o'clock last evening a fire started in the boiler-room of the irrigating works of W. L. Overhiser, about three miles from the city on the Waterloo road. Mr. Overhiser had gone to Elk Grove, and his son, W. H. Overhiser, with G. W. Potts, the engineer of the works, led the men employed about the place in the fight to save the adjoining building, in which the farm implements are stored. The irrigating works were totally destroyed, entailing a loss of about \$15,000, on which there is insurance. The men employed about the place all worked nobly to save the other buildings. In this they were helped by the fact that the wind, which was blowing hard at the time, carried the flames between the other buildings instead of directly toward them. The building destroyed was one of the first brick structures erected in this county. The news of the fire was brought to the city by Wm. Arnold and John Rooney, who had been out to Waterloo to attend a dance and heard of the loss on their way into the city. *Stockton Independent*, May 5.

We are sorry to find the above special in the Stockton and San Francisco papers. Although the loss is reported as "covered by insurance" in one dispatch, yet the indirect loss resulting from disabling the machinery, and the delays incidental to the purchase and setting up of new, cannot be estimated. We hope the phoenix will soon arise from the ashes, and the Worthy Master's crops not be less by reason of the misfortune.

Sacramento Grange Picnic.

Thursday, May 2d, was a great day for the thousands assembled at Beach's Grove to enjoy the picnic held under the auspices of Sacramento Grangers. Music was furnished by the First Artillery band, and the light fantastic was performed to the satisfaction of many dancers and a large crowd of onlookers. It is needless to attempt description of the scene at noon. A Grange Harvest Feast is noted for its overplus of good food, but a Grange picnic beggars adequate description. The races were entered upon with keen zest. Sheriff G. C. McMullan and Wm. Robinson acted as race judges, John Reese and Nelson Wilcox as starters, and Rock Hunt as patrol judge. Out of the large number of competitors, the following were winners: Bertie Greer, Howard May, A. J. Hiller, R. Titherington, May Myers, Eddie Simons, May Heith, Fittie Gosling, Matt Bronner, Harry Williams, George Vassello, E. Havener, Kittie Wittenbrock, Josie Myers, Eva Harlow, Mrs. Theresa McGlouchlan, Mrs. Nettie Jackson, Dicey Harlow, R. M. Hester, J. Harlow, — Boyne, P. M. Clark, J. C. McGlouchlan, H. Boyne, G. W. Harlow, West Simons, J. M. Harlow, L. J. Harrigan.

The Grangers' Warehousing and Business Association.

The regular annual meeting of the Grangers' Warehousing and Business Association was held on Wednesday, May 1st. The Board of Directors elected for the ensuing year are as follows: Dr. John Strentzel, F. M. Warmcastle, Geo. P. Loucks, D. N. Sherburn, J. W. Jones, John Larkey, R. O. Baldwin, Alex. Boss and James Kelly.

The board subsequently met and organized as follows: John Strentzel, president; F. M. Warmcastle, vice-president; Geo. P. Loucks, secretary; John Larkey, treasurer; J. W. Jones, Alex. Boss, James Kelly, Auditing Committee.—*Martinez Gazette*.

EUREKA GRANGE OFFICERS.—Eureka Grange met at Edgewood schoolhouse, April 27th, to install the following officers: J. C. Burns, M.; J. W. Hulbert, O.; Mrs. A. E. Burns, L.; J. O. Burns, S.; Mrs. E. B. Beecher, A. S.; Mrs. M. Srite, C.; M. Srite, T.; Mrs. J. W. Hulbert, Sec.; E. B. Beecher, G. K. The other officers failed to appear. Adjourned to meet at Edgewood schoolhouse May 25th.

ABOUT THE NATIONAL GRANGE.—The Worthy Master and Secretary of the State Grange are still in correspondence with the Executive Committee of the National Grange, and doing their best to secure the next session for California, and with a good deal of confidence for success.

SEEDLING ROSES.—Rose-growers of California will be glad to know that Mr. Luther Burbank of Santa Rosa is finding time in the midst of his advanced horticultural experimentation to undertake the trial of a vast number of seedlings of flowering plants, especially of roses and gladioluses. During a recent flying trip to Santa Rosa, we enjoyed Mr. Burbank's hospitality, but did not have time to visit the rose plantation, and at our request a box of some of the new blooms has been sent us for examination. We are pleased to find some of unquestionable excellence in form, color and evident abundant flowering, and some which we expect will win wide recognition through their characteristic qualities. We will not attempt to particularize them at this time, but merely make this mention to advise our readers that such promising undertakings are under way. We trust that Mr. Burbank will take an early opportunity to give the public an occasion to judge of his success, and we hope the Flower Show of the State Floral Society next week may seem to him a desirable opportunity.

THE CHRONIC FRAUD.—The *Williams Farmer* says: It is a fact that over 200 Louisiana lottery tickets were held in this town at the last monthly drawing and not one dollar drawn by the holders thereof. If this nuisance was abated, that money would be retained in circulation at home instead of going to fill the coffers of persons who have no interest in the State whatever. Again, we find that these tickets are not held by our men of means, but, on the contrary, are, without a single exception, held by our laboring population and persons in moderate circumstances. Had some one of the 250 tickets held in Williams at the last drawing proven the lucky number and drawn the capital prize, or even a twentieth part of the same, how many newspapers in the State would have published the fact under large and bold headlines! On the other hand, how many of our exchanges will notice this little paragraph? We venture to say, not one.

HOSTS OF CATERPILLARS.—There seems to be an unusually wide distribution of leaf-eating caterpillars this spring. Cut worms, pear sawfly larvae, pear slugs, etc., are reported in quantity in different parts of the State. For all these leaf-eating pests there is a sovereign remedy, and that is the application of Paris green, using one pound of the poison to 180 gallons of water and applying in a fine spray, being careful that the Paris green is continually agitated to prevent its settling to the bottom of the vessel. It does not dissolve in the water, but is merely mechanically mixed with it, and is thus carried to the leaf. If soap is dissolved in the water before the Paris green is put in, it is not so likely to settle, but must still be agitated. We have given this prescription several times before, but readers don't seem to remember it or to pay any attention to the subject until the worms are on them.

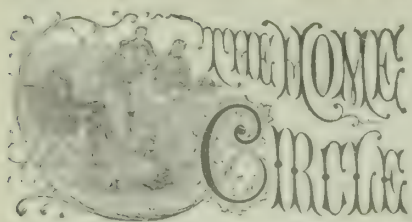
ALMOST A SERIOUS ACCIDENT.—We are glad to announce that a wagon breakdown which threw Prof. Hilgard, Senator Caminetti and George Hansen, foreman of the Amador Experiment Station, into the mud near Jackson the other day will not result seriously to any of the parties participating in the incident. Prof. Hilgard was visiting the station to note its progress and to arrange for water supply. The heavy rains had put the roads in bad condition, and an exceptionally bad pitch-hole was the cause of the disaster. All parties were more or less demoralized by the upset, and the life of Mr. Hansen, who was thrown between the horses and dragged for a long distance, was seriously imperiled. A few days' quiet will, however, restore him. It was a very narrow and very fortunate escape for all parties.

AFTER THE HYDRAULICKERS.—The Sacramento supervisors have obtained the following list of hydraulic mines which are now working in defiance of the law, namely: The Iowa Hill mine, run by two Chinamen and owned by J. B. Hobson. Look Gee Company, Colfax. Michigan Bluff—Van Emmons' mine. Forest Hill—Mayflower Company's mine. The mines of Ty Sing & Co. of Gold Run are running through the Gold Run tunnel enjoined by Judge Keyser of Yuba county seven years ago. Liberty Hill mine, Nevada county. Gold Run claims, Gold Run. Sing Ye Company's mine, Dutch Flat. These last claims have great pressure and fine machinery and run 5000 inches of water. The outlet for the debris is the north fork of the American river. Rewards for the apprehension of hydraulic miners will probably be offered in the course of a few days.

AGRICULTURAL DISTRICT No. 28.—The Governor has commissioned the following directors for Agricultural District 28: W. R. Tolles, L. M. Holt and R. F. Cunningham of San Bernardino; J. M. Hoag of Redlands, Joseph Jarvis and Emil Rosenthal of Riverside, Geo. L. Joy of South Riverside and W. E. Collins of Ontario.

THE WOMAN SUFFRAGISTS are making a vigorous campaign in Washington Territory for the purpose of having a clause inserted in the new State Constitution by the Constitutional Convention giving the ballot to women.

THE AUSTRALIAN ELECTION LAW, with modifications to suit the locality, has been adopted by both houses of the Missouri Legislature.



Ethereal.

Oh, where is the spinner that's carded the cotton
That's rolled round the brow of the Mount of
Mourning?

Is she fair? Does she dwell in the shade of the
fountain,
Or in the bright vale that the sunbeams bath
kissed.

You should see it, that mount wrapt in fleece of
soft splendor,
On a morning in spring, when the winds are
adrift,
When they sing from the ocean in symphonies
tender,
And anon the soft vapors they dally and lift.

Now it parts—and above is the mountain green-
crested,
And below is the vale, and the canyon's deep
roar;
But the brow, draped in white with its fleece
crown invested
Shows a diadem fairer than monarch e'er wore.

I have seen it full oft, and I loiter and linger
And fancy the fairy that wove the soft veil;
See the print of her footstep, the touch of her
finger,
And the bloom on the mount where her
pearly scarf trailed.

There's a fragrance of brine, seaweed and salt
grasses,
And a flavor of strength in the swell of the
breeze,
The morn's radiant tints, that all language sur-
passes,
And something in mem'ry that's awakened
by these.

Ah! something in memory, that faded and per-
ished
Long ages ago in life's morning-lit land,
When dreams and ambitions too ardently
cherished
Were cruelly wrecked on a desolate strand.

And I smile as I sigh at the lovely illusion,
For lo! the sweet vision dissolves from my
view,
Like the dreams of our youth turned to vain-
est delusion,
Too high for our reach, and too bright to be true.

—Mattie Stafford in "Pacific States."

Her Spring Cleaning.

[Written for the Rural Press by FANNIE ISABEL SHERRICK.]

"It's certainly time we were cleaning house," said Mrs. Reed, and as Mrs. Reed's word was law and gospel in the household, the cleaning was forthwith begun.

And for three long dreadful weeks Mr. Reed's life was made unbearable, with paint-cleaners, and scrubbers, and whitewashers, and goodness knows who all in the long list of those who strive to make life miserable in the springtime.

Every night Mr. Reed came home from his downtown office weary and longing for rest, only to sit down disconsolately in the midst of rolled-up carpets and dusty furniture and all sorts of bric-a-brac heaped up in the corners.

Everything was topsy-turvy, for Mrs. Reed was one of those energetic housekeepers who believe in tearing everything up at once. It was impossible for Mr. Reed ever to find anything he wanted, save his slippers, perhaps, which were generally on the mantelpiece. His dressing-gown he had found over-draping the easel in the parlor, and his fancy meerschaum in a spoonholder with the silver.

He was generally at his wits' ends when he wanted anything, for Mrs. Reed never remembered for a moment where she had put a thing, and she moreover was usually "too tired to think," and cross over the stupidity of her co-workers.

"I declare if I don't think it sufficient grounds for a divorce," growled Mr. Reed one evening as he stumbled over a step-ladder in the semi-lighted hallway, thereby smashing a handsome lamp-globe to pieces and knocking off a half inch or so of his own epidermis. "I think this housecleaning business ought to be put a stop to by law. A man can't have a particle of peace in his own house. I can't see for the life of me why a house that is cleaned every day in the year shouldn't be clean. It's perfect nonsense to turn everything upside down like this. I thought when I married you, Clara, you would have better sense. And what in the deuce are you laughing at?"

This last remark was addressed to his wife, who was standing in the doorway striving to keep from laughing outright at her irate lord and master who was sitting on the overthrown ladder with the debris of the broken globe about him, rubbing his knees dolefully. It was plain to be seen he was not happy, though monarch of all he surveyed.

"Excuse me, James, but I couldn't help it," Mrs. Reed said contritely. "I'm so sorry

about the lamp-shade, too, but it can't be helped now."

"Oh, of course two or three dollars don't make much difference, and a broken limb or two."

With this ungracious remark Mr. Reed limped upstairs, and by good luck having a cigar and newspaper in his pocket, made himself as comfortable as possible in the sitting-room.

When his wife followed him a little while later, he took a letter from his pocket and handed it to her, a look of grim satisfaction settling over his face as he saw her read it.

It was from his Aunt Jane, inviting herself to pay them a visit, her "annual" as they were wont to call it.

"Well, I never!" exclaimed Mrs. Reed. "And there's no way of getting out of it, for she'll be here to-morrow. Aunt Jane of all people!—the most particular woman in the country, and my house upside down from one end to the other! Dear, what shall I do?"

Mr. Reed made no reply, only smiling more grimly behind his newspaper.

"What do you suppose made her come this time of the year? You know she always comes in the fall, at fair-time. It's very surprising."

Mr. Reed had nothing to say, seeming not to sympathize with his wife in her dilemma. Indeed I believe he secretly rejoiced over the coming visit of his prim relative, thinking it would be a good lesson to his wife not to have her house in such a complete upset.

However, Mrs. Reed accepted the situation cheerfully and tried to make the best of it.

She and her maid-of-all-work set to work early in the morning and got the best bedroom straightened out so that Aunt Jane could be comfortable at least.

But such a disgusted air as that lady wore when she arrived in the midst of the confusion!

"It wasn't so in my day," she said in a superior way as she stood in the hallway viewing the dismantled parlors and the forlorn halls where the whitewashers were hard at work.

"We used to manage quite differently. But then we didn't have all these new-fangled ideas about dados and frescoes and the like, to say nothing of portieres and bric-a-brac."

Mrs. Reed took this rebuke upon her extravagance with meekness, and escorted her guest upstairs.

But Aunt Jane would not even take off her bonnet.

"I don't guess I'll stay, Clara," she said. "I'd better not. You're in such an awful mess."

"It needn't trouble you," said Mrs. Reed politely; "we will be all straightened out in a few days, as soon as the painters are done, and will do our best to make your visit pleasant."

"I don't doubt it," replied Aunt Jane, who, on the whole, rather liked her nephew's wife.

"But you see, child, it's like crowding the mourners. I think I'd better not stay, and besides, I did not come to make you a real visit. I came mainly on business."

"Business!" exclaimed Mrs. Reed, somewhat surprised and wondering what new turn family affairs had taken.

"Yes, business," repeated Aunt Jane, "and quite important, too. I want to get at that old-fashioned walnut table of your husband that you used to keep in your sitting-room. You know it belonged to Jimmie's" (Aunt Jane always called her nephew by his boy nickname) "father, my brother Sam. It seems there was a secret drawer in it that none of the family knew about, and it's just come to light that there are important papers in it that will decide the contest over father's will."

Clara felt the hot blood rushing all over her, clear to the roots of her hair. She remembered what she had said to her husband that very morning:

"I think the annual spring cleaning is a blessing, for one gets rid of all the old rubbish."

She had actually sold the old table to a second-hand man.

It had constituted in her modern ideas part of the "rubbish" she had so gleefully parted with to the old Jew for a few dollars; and here was Aunt Jane waiting anxiously to ransack that table.

For a moment Mrs. Reed was staggered, and then she did the best thing she could do—told the truth.

"Aunt Jane," she said bravely, "I'm very sorry, but the fact is I—sold the table to a second-hand furniture dealer."

"Sold the table!" gasped Aunt Jane, collapsing into the nearest chair, "and to a second-hand man!" Aunt Jane did not always speak correctly when she got excited.

"Yes, I did," said Mrs. Reed meekly, fanning the indignant lady with her handkerchief.

"Sold the table! sold the table!" repeated Aunt Jane in a dazed way, "and all that money will go to those rascals if the will isn't proven to be right. Well, I know no good ever would come of these new-fangled notions that can't bear anything that isn't fashionable. Then, that table has been in our family at least forty years, and now Jimmie's wife has gone and sold it to the second-hand man."

"Don't grieve so, dear Aunt Jane," said Mrs. Reed, trying to pacify her. "I'll tell you what I'll do. I'll put on my bonnet and run right downtown and see if I can get the table back."

"All right, child—be quick," said Aunt Jane, brightening up; "don't stop at prices. I'll pay most anything for it myself, for I must have those papers."

Mrs. Reed was ready quickly, but she came

back after she had got started to whisper a word in Aunt Jane's ear.

"Dear Aunt Jane," she entreated, "don't tell James—please don't—if he should come home before I get back; don't breathe a word. He will be so angry; but I didn't think it mattered, really I didn't."

"Well, there, child, I won't," replied Aunt Jane kindly, "but run along quickly."

"Well, if that table is in the city, I'll bring it home if I have to carry it here on my back," laughed Mrs. Reed, hailing a street car and looking immensely hopeful.

But alas! her hopes turned to despair when she reached the shop of the old Jew, for she found that he had sold it the day before to a woman living in the country. She obtained the woman's address and went home to tell Aunt Jane.

"Well, you'll have to hunt the woman up," said Aunt Jane. "It's lucky she lives on the line of the railroad."

"Yes, very lucky," sighed Mrs. Reed, thinking of her housecleaning coming to a standstill while she went chasing over the country in search of an old walnut table.

The two women kept the secret between them, and the next day Mrs. Reed took the first train to Melville. This time she was successful. She found the lady she was in search of, who willingly sold her the table for a trifle more than she had paid for it. It was duly shipped and brought home in triumph.

Aunt Jane was delighted, and together they searched for the secret drawer.

It was an exciting moment when Aunt Jane touched the little brass knob almost hidden and the drawer flew open.

And then both women uttered a little scream of amazement. The drawer was empty!

"Well, I never!" exclaimed Aunt Jane. They looked blankly at one another for a moment, and then Mrs. Reed said:

"You must surely have been mistaken."

"No, I was not," replied Aunt Jane, firmly.

"The papers were put away in that drawer by brother Sam, and no one knew of their existence but mother and himself. Mother's mind had been sort of wandering, you know, after father's death, and the person to whom she confided this secret did not believe she knew what she was talking about; but the minute I heard it I just knew it was true and I came post haste to investigate."

Mrs. Reed said no more, and though she felt sorry for Aunt Jane's disappointment, she could not help thinking it must all be a myth, though to be sure they had found the secret drawer.

When her husband came home she confided the whole matter to him. He said very little, only smiling in his enigmatical way, but the next evening when he came home from his office he laid a bundle of papers in Aunt Jane's lap.

"There," he said, "are your papers. I have always felt afraid of Clara's housecleaning manias, and on these occasions have taken all letters and papers of value out of the house. Not long since I happened to think of the secret drawer which my father had once told me of, and looking in it, discovered these papers. Believing them of value and fearing that in some accidental way the secret spring might be touched, I took them downtown and locked them up in my desk."

"Well, I never!" exclaimed Aunt Jane, whose expressions of excitement were usually limited to this eloquent phrase.

"All's well that ends well and has a good beginning," said her nephew gaily.

"Well, I can tell you what it is, young woman," Aunt Jane said, turning to his wife.

"You may thank your stars that with all your new-fangled notions and upsetting ways, you've got a husband who has got a level head."

"Yes, dear aunt," said Mrs. Reed meekly.

"I think I quite appreciate him," a speech which entirely upset her husband's gravity.

It is needless to say that the papers settled the validity of the grandfather's will and that Mr. Reed fell heir to his father's portion, which was not inconsiderable.

He forthwith settled a handsome sum upon his wife, with the sole stipulation that at every annual housecleaning there should be an apartment sacred to him and which should on no account be invaded with mops and brooms and whitewasher.

A Choir Quelled.

In the Lewiston (Me.) Journal, a minister tells his experience with a choir whose members quarreled among themselves. "One Sabbath, they informed me that they would not sing a note until Brother —, one of their number, left the choir. I gave out as the opening hymn:

Let those refuse to sing
Who never knew our God,
But children of the heavenly King
May speak their joys abroad.

They sang, and I was never again troubled."

WHY SOME FOLKS STAY POOR.—A shoe manufacturer in Portland, Me., having been asked to assist in providing bread for the suffering poor, said he would contribute to the extent of 100 sacks of flour and 100 bushels of meal, one sack of flour and one bushel of meal to be given to each man who might be found in Portland who neither kept a dog, drank rum nor used tobacco, and was in need of bread. The first man has not appeared yet to claim the gift, although the offer was made four months ago.

Hints for Housewives.

EDITORS PRESS:—I read once that every one should partake of some food and a warm drink before he did any work in the morning. That rather amused me, for I could not see how the drink and food could be prepared without work. But after my last illness I found myself so weak that it was impossible for me to dress myself until I had had some refreshments. Then I could help get breakfast and do quite a good day's work. Now it was important that I should have the food, but more especially the warm drink, just as soon as possible after awakening. So I took a small alcohol lamp and put it by my bedside on a stand, fixed my cold coffee in a tin cup with a cover beside it, and put a couple of crackers or a thin slice of bread and butter between two plates close by; then, with my match-safe handy, I was ready for my morning repeat without waiting for the fire to be lighted. It cost me only 20 cents per month for alcohol. The lamp was a half-pint cup with a screw top, fixed for one wick; then I had a zinc stand made to set over that with a hole in the top, so that the cup could set right upon the blaze—there being no smoke or black. I only put in a teaspoonful of spirits at a time, and by capping the tube with a thimble as soon as the coffee was hot, it retained the spirits that was unburnt, ready for another time. It was very little trouble and was such a help to me that I thought I would tell some of the sisters about it, hoping they would try it when they feel weak and faint in the morning.

There is one kind of dyspepsia that makes the stomach hurt after eating. That can be cured nearly every time by eating five small meals a day instead of three large ones. I know from my own experience and from that of several of my neighbors. Of course you may not feel better for three or four days, but keep trying that plan for a week and I am sure you will be benefited, and if your stomach feels bad in the night, have a cracker or two or a cup of milk to drink handy by the bed and partake of them without getting up. It stops the gnawing feeling and you can fall asleep and get rested. Never mind if some do laugh at you for eating so often, your laughter will be the happiest because you will feel comfortable.

Some kinds of flour are very touchy and act sulky if they get chilled even a little. By setting a pan of hot water upon the board or table where you are going to mold your bread for five or ten minutes before working, it will prevent chilling the dough and sometimes it will rise quicker for the warming.

We have such fun coloring eggs for Easter with different colored dyes. With blue dye the yellow shells take such a lovely blue-bronze color, while the white shells will be plain blue. Then one can have all shades of pink, red, purple and maroon. A little basket lined with some soft greenery, and the colored eggs placed within, makes such a pretty Easter gift that we feel well paid for the trouble.

I am having good success this year raising Brown Leghorn chicks. I feed them with dry curd, made by heating the lobbared milk until the curd is hard, until they are one week old, and then giving them the curd for one meal and wheat the next. I have tried all kinds of ways to raise them other years, but with such poor luck that I was almost discouraged; but I am very much pleased with the result from the curds. For the laying hens we have kept a tab full of shorts, wheat or barley, well wet with sour milk, and they have laid excellently. My hens are Plymouth Rocks and Brown Leghorns, with two pure blood roosters of each kind.

MRS. J. HILTON.

Los Alamos.

Chaff.

Says "Rambler" in the San Jose Mercury: I was passing down Santa Clara street Friday afternoon, when I saw a granger driving along a big pig, with a reasonably fair mixture of success and exasperation. A well-known citizen who was driving down the street at the same time shouted to the granger as he passed: "Hello, there! Isn't it strange to see one hog drive another?" "Well," replied the granger, "I don't think it is so funny as it is to see a hog drive a horse."

INSANITY BY ABSORPTION.—"And how did Birkins become insane?" "By absorption. He slept three nights beneath a crazy quilt."—Boston Transcript.

Poets who submit their verses in person to magazine editors want to look a little odd. Some fellow has invented a new "magazine gun" containing 10 or 12 cartridges, and warranted to be more destructive than any other similar weapon in the market. Such a gun in the magazine editor's hands doesn't give the poet much chance to get downstairs and around the next corner.—Norristown Herald.

Sydney Smith, hearing a little girl read, who persisted in reading "partridges" for "patriarchs," said: "She is determined on making game of the patriarchs."

The attention of the passengers in a Canadian smoking-car was riveted on a strangely behaved negro. He rocked himself from side to side without ceasing. "What's the matter with you?" asked a traveler who was in the car. "Does you know Dan McGary?" "Yes." "Well, sah, he sold me a silver watch for twenty dollars," continued the negro, still swaying from side to side; "an ef I stops movin' dis here way, de watch don't go no mah."

YOUNG FOLKS' COLUMN.

Tangles.

Enigmatic Snarls, Hard and Easy, for Young People of all Ages to Untangle.

19—A CAUTION.



20.—ENIGMA.

Where happy children romp the green (1)
In times of peace I'm found,
Yet at the mast in arms I'm seen (2)
'Mid battle's fiercest sound;
And on the land where cannon roar
I hold the deadly ball (3).
And many a vessel seeks the shore
On me again to call (4).
Again 'mid busy haunts I'm found
Where rings the hammer's peal (5),
Or fiery furnace burns the ground (6),
Or swings the burnished steel (7),
Or where the mine its treasure heaps (8),
Or forests yield supply (9),
Or sentry round me vigil keeps (10)
In prison where I lie,
About the stable oft I'm found (11),
Again at palace door (12),
I reach the spacious earth around
Repeated o'er and o'er (13);
And with the silent dead remain
When earthly friends forsake (14),
Or in Orion's shining train
A golden trio make (15).

B.

21.—CAN YOU TELL?

In a room there were 1 grandmother, 2 mothers,
2 aunts, 4 sisters, 4 daughters, 3 cousins, 3 nieces
and 3 granddaughters, all from the same family.
How many persons were there in the room?

FLORENCE BARNETT.

22.—BEHEADMENTS.

Far o'er the sea, to distant lands,
O'er snowy mountains and trackless sands,
To whole the message Christ has taught,
That it may next last soul He bought,
The earnest missionary goes,
Proclaiming life or deadly woes;
Salvation free he offers all
Who hear the word, accept the call,
But threatenings dire to Adam's race
Who do reject the words of grace.

R. K. NUS.

23.—WORD SQUARE.

1. In logic, the first words in technical verses.
2. In general, punishes. 3. Widows. 4. Any part
of a rampart or parapet which deviates from the
general direction. 5. An officer who prefers an ac-
cusation against another. 6. To go back. 7. De-
clares.

U. REKA.

24.—TRANSPOSITION.

"PETER N. MACE" was a vagabond, tramp;
He was idle and wretched, a drunkard, a scamp;
But now he is sober, respected;—who can
Tell me what was it that made him a man?

LEVER.

ANSWERS.

13.—Cloves, cinnamon, salt, mint, mustard, mace,
pepper, vanilla, coriander, spice, sage, vinegar, nut-
meg, ginger.

14.—Beast, best; negro, Nero; world, wold; turn-
key, Turkey; Leander, leader.

15.—It-ern, em-it, m-ite, ti-me.

16.—Pansy, pins, Pan, pa, p.

17.—

501=D1

5=V

1=I

101=CI

And these letters properly arranged make two-thirds of Cæsar's famous message, "(Veni, vidi, vici)"

18—Microscope.

Rob Wiltz's Scrape.

[Written for the Rural Press by ADAM F. BATELLE.]

Perhaps it was not my fault in the least, but as Rob Wiltz got into trouble helping us, I feel very much to blame. Poor fellow! I am afraid he vowed never again to take pity on friends in distress.

To begin at the beginning, mother had not been well all summer, and, in spite of our urging, she would not rest. In the latter part of August I insisted on taking her up to Aunt Mattie's for a visit.

There was the usual scene at the station, the whole family saying good-by and loading me with injunctions as to what to remember. My sins of omission have been so many that they were almost afraid to trust the little mother to

so heedless a body. But I made many promises of carefulness, and, to prove my ability to travel, insisted on going alone to get our trunks checked.

"A man pushed in and said: 'Mine first.'"

"This lady is waiting," said the baggage-master.

"I came first," retorted the man.

My opinion of baggage-masters as a class rose when this one said: "The age of chivalry isn't yet over; I'll check this lady's trunk first."

We had a pleasant seat, and after settling mother comfortably, I amused myself by studying faces and imagining all sorts of things about my fellow-passengers. This favorite pastime of mine is discouraging in one way. It proves that I am no judge of human nature, for my surmises are seldom correct.

As we passed from one train to the other in changing cars, two little boys came hurrying along carrying a large valise.

"Is this the train to Oregon?" one of them asked.

I told him where our train was bound for, and we hurried on.

"We ought to have seen to the little fellows," said mother when we were seated in our car. "How can people let such little children travel alone and so far? To Oregon—it's a shame!"

Just then the little boys came in and found a seat, so we concluded that some one had directed them, but continued to express our pity.

Not long after, among the names of small towns shouted unintelligibly was one that I understood. It was Oregon! We looked out and saw a group of some half-dozen houses and the Oregon hotel. We could only laugh and think of our wasted pity.

We were to change cars at Parkson, a town four miles this side of aunt's; but when I helped mother into the waiting-room, I saw that she was not able to go even so short a distance.

When she drank some water and felt a little better, she walked, with my help, to the hotel, a few steps from the station. Her willingness to go there and rest, as I urged, showed me how badly she felt. I asked for a room, and persuaded her to lie down and let me bathe her face and hands. Unused as I was to sickness, I saw that a fever was rising, and became thoroughly alarmed. Had I known some simple remedies, all would have been well. Isabel would have known what to do, but I never liked to fuss with medicine and was helpless as a baby.

I started downstairs resolving to send for a doctor, though I knew mother would disapprove if she knew. Hurrying through the hall, I ran against a man, and, looking up to apologize, was overjoyed to see Rob Wiltz. He and Isabel went through the High School together, so I felt acquainted with him. He said that he came in on the noon train, and was waiting for his uncle to meet him. Rob offered his assistance when I told him of mother's sickness, and volunteered to go for my aunt instead of for a doctor.

"I will have her here in less than an hour," he said, stepping into the office to ask that a team be sent at once from the livery stable.

Of course I tried to thank him, but cried so I could not, and ran up very thankfully to mother. She seemed to be asleep, and I sat down by the window and saw Rob drive away. He had a pretty black horse and a low buggy, and I was sure that, with such an outfit, he would not be gone long.

The hotel was on a noisy street, and from my seat by the window I could hear a commotion. The landlord was talking in a tone evidently intended to soothe. Probably his quiet tone was unavailing, for the other man swore dreadfully, and I could catch the words "stolen" and "constable" over and over. The landlady came up to see about mother, and explained that a horse and buggy had been stolen, only a little while before, from the hotel.

"Your mother seems resting easily," she said as she left the room.

"She seems better," I replied, "and I have sent for my aunt."

Rob started out of Parkson with a nice "rig," as he called it, and, having a good road, it did not take him long to reach aunt's home. At aunt's there is a shed to drive into, and while Rob stood in this shed watering his horse, he noticed two men who drove by together. They went as if on a race. Rob had better cause to remember those men than he then thought.

As Rob and my aunt started back to Parkson, they passed two boys in the road, and heard one of them say: "I'll bet my hat that's the fellow they're after." Rob said it made him feel as if he were an elephant, escaped from a menagerie, for the boys were watching him. The teams they saw on the road were going very leisurely, but just before they got into Parkson they heard a fast horse behind them. Like most boys, Rob does not enjoy being passed on the road, and he hurried his horse and got to the hotel before the horse behind them did.

Aunt went directly to the landlady, who brought her to mother's room.

Rob had tied his horse, when (just imagine his feelings!) these two men came up and one of them said: "Young man, it's my duty to arrest you unless you can explain yourself."

Rob was so surprised that he only said: "To arrest me? What for?"

"For stealing this horse from before this hotel an hour ago."

Rob tried to tell the constable about it, and

that dignitary said: "Only one thing makes your story seem true—your coming back."

The owner of the horse and buggy was so excited that he would not give Rob a chance to go on, but talked very fast and loud about "hoodlums."

"They've tried that trick too many times—didn't steal my horse—oh, no, but they got a free ride, and this fellow shall pay for his."

"The ladies in room—" Rob began, "in room—" and stopped. He did not know the number of our room, and as we had not registered, he did not know what to do, and tried to describe us. He thought our evidence might clear him.

I don't know what they might have done with Rob if a new actor had not appeared on the scene. Rob's uncle drove up and greeted his nephew heartily. The horse-owner and the constable knew Mr. Kinley, who owns a large farm near Parkson.

Mr. Kinley laughed at Rob because he had not explained carefully about taking the livery team. And there was the horse and buggy from the stable, waiting all that time at another entrance.

Mother was so much better that we went home with aunt on the late train that evening.

Mr. Kinley was very pleasant to us, but I did not like his teasing Rob about the scrape.

Mother and I will always be very thankful to Rob, and sorry that his kindness received no other reward than an arrest.

GOOD HEALTH.

THE TRUTH ABOUT THE MIND-CURE.—Now, in view of what has been done in curing disease by the aid of mental influence, the public has a right to demand that our physicians shall give us the benefit of this healing agency. Mental influence is a pleasant and inexpensive medicine; it cures in some cases where drugs fail, and it shortens the term of sickness and lightens its pain in many other cases; furthermore, it has no injurious incidental effects. But the mind-cure should be taken out of the hands of the untrained and irresponsible visionaries and the impostors who now practice it, or it will add a terrible amount of suffering and death to what it has already caused. These enthusiasts, carried away by their seeming successes in a few cases, insist that the mind-cure is the only treatment that is worth anything in all diseases and for all persons. They know too little about the nature of disease to recognize symptoms which indicate the fitness of this agency, too little of science in general to realize that a means suitable to remove one condition may be entirely inadequate or unsuitable to counteract another.—*Popular Science Monthly*.

A DANGER PECULIAR TO RESIDENCE IN FLATS.—The *Lancet* (London) raises its voice of warning to apartment-house occupants, which is worth considering. An ordinary householder has access to every portion of the building in which he lives, and should he suspect a defect, he can ascertain how far his suspicion is correct and remedy it. But in the case of flats, while the actual apartments rented may be free from all risk of evil, the tenant is, in point of health, almost entirely at the mercy of his landlord and of the occupiers of the basement, in so far as the drainage of the premises is concerned. If this latter be wrong, the whole mansion is apt to be filled with foul air from below upward. A number of cases have come under our notice in which tenants have only been too glad to pay what was demanded of them in order to get out of the premises with the least possible delay. While no one should take a residence without skilled advice as to its sanitary state, this precaution is more than ever necessary in the case of flats, where the entire premises, including, above all things, the basement, should be thoroughly overhauled.

DANGER FROM BITING THE FINGER-NAILS.

"A novel incident resulting from a habit of very common prevalence among nervous people was brought to my notice recently," said a leading physician of Philadelphia to a reporter the other day. "A young lady presented herself at my office and complained of a constant irritation in her throat. Two weeks previously she had been taken with a very severe attack of sore throat, which was treated by the family physician. Under his care, she said, the inflammation quickly subsided, but there still remained a sensation of irritation. Examination revealed a small, fleshy-looking object about the size of a kernel of wheat adherent to the tissues posterior to the left tonsil by the one end. The other parts of the throat were normal. The little mass could not be detached by a cotton-covered probe, but by the use of forceps it was easily removed and on examination proved to be a piece of finger-nail which had become imbedded in a cheesy deposit. A broken piece of the nail was also removed from under the mucous membrane at the same spot by a sharp-pointed probe. The lady then confessed to the habit of biting her finger-nails, and moreover could remember that a day or two previous to her throat trouble a piece of nail she had bitten off had become lost in her mouth, but after it had caused a fit of coughing she had forgotten all about it until reminded by the discovery."

WRINKLES.—The following paragraph would seem to do away with the old theory that wrinkles are produced by worrying: "It is customary to say that wrinkles come from wor-

rying, but the truth is that most of them come from laughing," says a well-known physician. "To know how to laugh is just as important as to know when to do it. If you laugh with the sides of your face the skin will work loose in time, and wrinkles will form in exact accordance with the kind of a laugh you have. The man who always wears a smirk will have a series of semi-circular wrinkles covering his cheeks. When a gambler who has been accustomed to suppressing his feelings laughs, a deep line forms on each side of his nose and runs to the upper corner of his mouth. In time this line extends to the chin and assumes the shape of a half-moon. A cadaverous person, with a wax-like skin, is very apt to have two broadly marked wrinkles, one running up from the jaw and the other under the eye. These meet at right angles at the cheek-bones and look as though they formed a knot at the apex. The scholar's wrinkles form on his brow, while the scheming politician's come round his eyes, where they look for all the world like the spokes of a wheel."—*Mail and Express*.

LENGTHENING LIFE.—An English newspaper has been making collective investigation regarding the questions given below: "1. Does your experience suggest to you that the race of Englishmen is degenerating physically? 2. Do you think that the great advance in the healing art is responsible for keeping alive much weak life that will in time affect the whole race injuriously? 3. Do you think that the increased indulgence in physical sports has, on the whole, a good influence on health? 4. Has it ever struck you that probably the great attention paid to health in these days may be producing an anxiety about bodily ailments which is a disease in itself?" Answers have been received from a long array of practitioners, among whom are the names of eminent London physicians. The general view taken, according to the *Medical Record*, is that Englishmen are not degenerating, but that, on the whole, the race is improving in vigor.

DOMESTIC ECONOMY.

OATMEAL MUFFINS.—Two cups of oatmeal, one cup of flour, one large spoonful of butter, the same of molasses, one small teaspoonful of soda; enough milk to make a batter.

SARDINE SANDWICH.—Wipe and bone the sardines, lay them on the bread and squeeze a lemon over them very lightly, taking care not to make them too wet or the bread will be soggy.

SMOTHERED RICE.—Boil for ten minutes one cup of cold boiled chicken chopped fine, two cups of cold boiled rice and one pint of chicken broth, seasoned with salt, pepper and butter.

GINGERBREAD.—One cup of molasses, one-half cup of brown sugar, one-fourth of a cup of butter, one cup of sour milk, one egg, one teaspoonful each of cream tartar, soda, ground ginger and cinnamon, flour enough to make a medium batter.

POTATO CROQUETTES.—Season cold mashed potatoes with pepper, salt and nutmeg, beat to a cream with a tablespoonful of melted butter to every cupful of potatoes. Add two or three beaten eggs and some minced parsley. Roll in small balls, dip in beaten egg, then in bread-crumbs; fry in hot lard.

TONGUE TOAST.—A very nice dish is prepared from cold boiled or potted tongue. Slice the tongue and cut each slice into small, fine pieces, heat it in a pan with a little butter. To prevent burning, moisten with warm water or clear soup. Add salt and pepper; stir into it two beaten eggs. When set, arrange neatly on toast.

WHITE MOUNTAIN CAKE.—Two cups of sugar, one cup of butter, one cup of sweet milk, four eggs, four cups of flour, two teaspoonfuls of baking powder. Cream butter and sugar together, add the beaten yolks, then the milk, flour with the baking powder sifted through it, and last the beaten whites. Flavoring. Bake in one loaf.

MAYONNAISE DRESSING.—Put the yolks of four eggs in a bowl, set in a cool place, then pour in, a few drops at a time, some good salad oil, without ceasing to stir the mixture; when one tablespoonful of oil is well mixed with the yolks, add, in the same manner, one teaspoon of white vinegar; add oil and vinegar until the sauce is of the consistency of thick cream; add salt and white pepper to taste, and mix well.

BROWN BREAD.—Two cups each of corn meal and graham flour, four cups of water or milk, one cup of molasses, one teaspoonful of soda dissolved in a cup of water, a tablespoonful of salt. Mix all well together, put in a pan or jar with a tight cover, set into boiling water and steam for four hours. As the water wastes, fill up with boiling water, and do not let the water cease to boil from the time the bread is put in till it is taken from the kettle.

CHEAP FRUIT CAKE.—One pound of flour, three-quarters of a pound of sugar, half a pound of butter, one pound of raisins, one pound of currants, half a pound of citron, one teaspoonful of mace, one nutmeg, five eggs, one even teaspoonful of soda, half a pint of sour milk; flour the fruit well, cream the butter and beat the eggs light, separately, and, no matter in what order you may put in the ingredients, your cake will be light; only, after soda is added, the baking should begin forthwith.



A. T. DEWEY.

W. B. EWER.

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SAN FRANCISCO:

Saturday, May 11, 1889.

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[NEW THIS ISSUE.]

Headers—Hawley Bros. Hardware Co.
Agricultural Implements—P. P. Mast & Co.
Hay Presses—Baker & Hamilton.
Argonaut Stock Farm, Sacramento, Cal.
Underwear—Mrs. M. H. Ober.
Well Drills—F. C. Austin Mfg Co., Chicago, Ill.
Poultry—Associated Fanciers, Philadelphia, Pa.
Horses—John Deter, Colusa, Cal.
Fruit Trees—J. T. Bogue, Marysville, Cal.
Sugar Machinery, etc.—Blymyer Iron Works.

See Advertising Columns.

The Week.

The prevailing talk is concerning crops. The rains can be counted to have helped grain more than they have hurt it, though some local losses may be considerable. Reports of the fruit outlook are somewhat contradictory, but though some sections report certain fruits large, others seem to have lower estimates on the same fruit to offset them. All accounts agree, however, on lower yields of cherries and apricots than usual, and in cherries the popular canning sorts seem to have suffered most.

Shortage in cherries and apricots has naturally filled the country with buyers, and growers' views are therefore high. If proper freight rates on canned goods can be assured in time, it is probable that prices for fruit will go far to compensate growers for smaller crops. Plums and prunes seem to have prospered best of all fruits, and we hear of abundant prospects. There is much contradiction in reports on peaches; in some parts the yield will be very light and the whole crop will run below the last two years. Pears have dropped badly and grapes promise well, but are hardly out of the woods yet.

The rains will give us a verdant landscape later than usual this year, which will delight

the tourist, the flower-hunter and the grazing animals. The State is still at the height of its beauty, fit to delight the eye and fill the heart.

The Heavy May Rains.

We generally have heavy rains in California, but they are usually only heavy enough to record their impress on the dust of the early summer. Sometimes greater weight of water falls and some injury is done in soaking hay and lodging over rank grain. This year the rains have been unusually heavy and wide reaching and have been accompanied with unwonted wind force. The result has been damage to hay and lodging of early sown or summer-fallow grain, which will perhaps double the cost of harvesting even if the effect on the yield is not large. With such moisture a few hot quiet days would develop much rust, so that in some parts of the State there is danger of after effects which cannot yet be measured.

There has been some injury to small fruits which were ripe in the early parts of the State, but the greater injury has been the prostration of orchard trees, which in their full leaf and in soft-soaked soil could not withstand the wind. Still this evil, counting the State as a whole, has been small, and any ill to tree fruits generally will be more than compensated for by the improved size of the later fruits, which had it not been for this spring gift of water might have thirsted before autumn, for the general aggregate of the winter rains was not large, though a desirable improvement upon last year's record.

The wet ground and low temperature prevailing gives the vine-growers apprehensions of frost, and it will be desirable to watch the thermometer and have fresh piles of dry litter for smoking. This safeguard against frost effects is now quite generally attended to in the small valleys where frost is most to be apprehended, and the smoke cure is most readily applied. If attention and protection are given for a few days now, the vines will be counted safe for the year and their present promise of generous fruiting may be realized.

To show how general have been the May rains and how respectable the season's figures have become at various points in the State, we give the following table derived from telegraphed reports from observers at the stations of the Southern Pacific railway. Our southern counties have been well favored this year, and though there are of course drier regions at the south than those reported, the figures for the year are in gratifying proportion everywhere:

Stations.	Rain for storm.	Rain for season.	At same date '88.
San Francisco.....	1.68	22.41	16.96
Oakland.....	.65	19.82	17.25
Niles.....	.64	15.61	11.38
Martinez.....	.40	16.93	12.61
Livermore.....	1.17	15.45	12.35
Tracy.....	.60	10.83	...
Stockton.....	.77	12.17	9.35
Ione.....	1.47	14.00	11.10
Folsom.....	1.84	21.47	...
Placerville.....	7.00	34.11	...
Santa Rosa.....	1.30	22.90	...
Napa.....	2.05	22.36	17.44
Vacaville.....	2.24	24.20	18.18
Woodland.....	1.30	19.88	11.87
Williams.....	.95	12.67	7.36
Marysville.....	1.34	20.67	13.43
Chico.....	1.37	19.47	11.77
Red Bluff.....	.40	21.54	14.56
Delta.....	2.23	54.57	...
Sacramento.....	2.90	18.05	10.25
Los Gatos.....	1.64	24.32	...
Auburn.....	3.60	27.55	21.16
Modesto.....	1.11	8.68	6.44
Merced.....	.63	7.76	6.28
Fresno.....	.37	7.81	6.15
Tulare.....	.72	7.88	6.25
Pomona.....	.22	16.95	...
Anaheim.....	.21	17.15	16.94
Santa Monica.....	.16	13.58	18.34

"California on Wheels"

Has been heard from as far East as Albany, N. Y., where a new floor had to be laid in the exhibition car, the one it started with having been utterly worn out by the footsteps of myriads of visitors.

To illustrate the interest which this display of our State products has aroused along the route, the manager mentions that they reached Schenectady, N. Y., in the midst of a heavy rainstorm. Nevertheless, over 600 people visited the car after nightfall, and it was found necessary to keep the doors open until 10 P. M., instead of closing at the usual hour—9 o'clock.

The roving exhibit is next to be taken through New England and afterward to New York City.

West American Oaks.

We have received, through the courtesy of Prof. Geo. Davidson, a copy of a monograph on "West American Oaks," the history of the preparation of which is as follows: Dr. Albert Kellogg, a distinguished pioneer botanist of this State, confided to some of his friends, before his death, all his papers on botany. They were incomplete and there was apparently no hope of their being finished or published. J. P. Moore and W. G. W. Harford consulted with Prof. Davidson, who addressed a letter to Jas. M. McDonald explaining the matter to him. The result was that Mr. McDonald cordially undertook to bear the expense of publication and gave his check for the required amount. He also asked for an estimate of the cost of publication of a similar monograph of the Coniferæ. Prof. Edward Lee Greene of the University of California wrote the text and the drawings were made from the originals by Dr. Kellogg.

Dr. Kellogg was one of the original seven founders of the California Academy of Sciences, and one of those mainly instrumental in giving it a reputable standing in the scientific world. He was an enthusiastic botanist, ardently devoted to research in the new field of the Pacific, and a singularly unselfish man, assisting with his knowledge and experience all who sought his advice.

In the sketch of the life and work of Dr. Kellogg, which Prof. Davidson has written for the monograph, occurs the following paragraph: "He was the embodiment of modesty in manhood. His heart was as gentle, as sweet and as innocent as a woman's. His speech was clean and refined; always for the right, the needy and the struggling. He was startled at an attack on religious purity, and then his words rose swiftly in force and directness. His soul revolted against chicanery, intrigue and petty meannesses of the trickster, the back-biter and the prevaricator, and his condemnation was unhesitating and piercing. He shrank from the charlatan and the sham; to him they were an unnatural growth in morals or science. His sense of justice and purity was so inborn that he instinctively knew the presence of the offender. His moral life charmed the young and innocent and was an example to the best."

The term "West American Oaks" is used for the work because all the oaks east of the Rocky Mountains have been published as East American oaks. There are now known to botanists at least 300 kinds of oak, of which 50 are indigenous to North America, north of Mexico. The 50 North American species are about equally divided between the eastern and western sides of the continent; and there is no oak common to Atlantic and Pacific America. The greater part of the species belonging to the Pacific States and Territories were more or less fully illustrated by Dr. Kellogg's pencil. The 24 different drawings of his in the monograph represent all the more important species of the extensive commonwealth of California particularly, as well as several others; and the editing of these plates has resulted in a virtual monograph of the Pacific North American oaks; so the volume may be found to contain about all which, up to this date, is known of our West American oaks. The plates are of lasting value. The engraver has been scrupulously faithful to the drawings; and no artist was ever more strictly and conscientiously true to nature than Dr. Kellogg.

The bibliography of the oaks is specially complete. The text is intelligently and plainly written and scientifically correct. Botanists everywhere owe a debt of gratitude to Capt. McDonald for his generosity in publishing this work. The work is a credit in every way.

WATER FOR ARID LANDS.—An important meeting was held on Tuesday at the rooms of the State Board of Trade, where Senator Stewart of Nevada spoke at considerable length in regard to reclaiming the arid regions of the country. We will endeavor to give a further account of it in our next issue.

FIRST APRICOTS.—The Fruit-Growers' Association of Vaca valley shipped the first apricots of the season East on Saturday, 4th inst. The crop is light. The first apricots received in this city by Allison Gray & Co. came from L. W. Buck's orchard and sold for half-a-dollar a pound.

Conspirators Nonsuited.

Some months ago the Pacific Factor Company, alleged to be a corporation engaged in a general commission business, brought suit against A. A. Adler, to recover \$5625 for breach of contract.

It appears that a scheme was concocted a year ago to corner the grain-bag market of California for 1889, and on the 16th of May, 1888, that Adler agreed to give the said P. F. Co. the exclusive sale of all grain bags or burlaps from which bags could be manufactured, in any way under his control, up to Jan. 1, 1889, amounting to 187,500 bags, and to accept for said bags or burlaps the average price the company might obtain for all grain bags or burlaps it might sell between the date of the contract and Jan. 1, 1889. Defendant further agreed to pay the plaintiff, as liquidated damages, in case he should fail to comply with the terms of the contract, the sum of three cents for each bag of the entire 187,500, which he refused or neglected to deliver.

The complaint stated that the defendant refused to deliver the bags according to contract.

The defendant's answer was mainly devoted to showing up the abortive bag-trust engineered by plaintiff and others. It averred that the directors of the P. F. Co. had devised a plan to control the sale of all grain bags in the State or to arrive before Jan. 1, 1889, for the purpose of increasing the price and compelling the farmers to purchase at prices in excess of the real value. The consumption of grain bags in the State was from 32,000,000 to 35,000,000. The calculation was that there were in the State, or in transit, 42,000,000 bags, and if the plaintiff could secure control of a majority of these, competition would be removed and the price could be raised to figures which would satisfy the greed of the speculators. Contracts were then entered into with the defendant and many others, all of a similar nature, by which the plaintiff could secure control of 30,000,000 bags.

Defendant also charged that the plaintiff had contracted with its president and vice-president to sell 4,000,000 bags belonging to them in advance of sales to be made for defendant and others. The defendant then claimed that the combination was against public policy and that the contracts were void.

The case came up in Superior Judge Lawler's court on Tuesday of this week, and David Freidenreich, attorney for the defendants, moved for a nonsuit, which the court granted on the ground that bags were a necessity to the farmer, and a combination of the character indicated by the pleadings was against public policy, and the agreements under it void—a decision which will be heartily commended by the honest producers of California, and for that matter by honest people everywhere.

The Flower Show.

We have already referred to the first Flower Show of the State Floral Society which will open at Irving hall in this city on Wednesday, May 15th, and continue three days and evenings. It will have this distinctive character over the many excellent floral displays which are being held for charitable purposes in that this is to be, so far as possible, an exhibition on approved scientific plans. Flowers are not to be massed for general effect, but are to be shown in single specimens correctly named, so that the flower-lover may study closely individual characteristics and associate these with the proper appellation of the bloom. Though the display will be naturally beautiful, and though there will be delightful social features, the fair is to be primarily for educational purposes and for the advancement of intelligent floriculture. The exhibition is in charge of a committee of which John H. Sievers of 25 Post street, S. F., is chairman, and from him, or from the secretary of the society, Emory E. Smith, 126 Kearny street, copies of the premium list and regulations for the exhibition can be had. The schedule is made out to meet the requirements of both large and small growers, and we hope that both those having large collections and those having but a few choice varieties may aid the exhibition.

FOREST FIRES have been raging widely in Northern Wisconsin and Minnesota for the past week. Great destruction is reported, and it is feared that some lives have been lost.

Improvements in Lime-Burning.

Lime is of such universal industrial importance, and as the occurrence of lime rock and the means of reducing it to available form interest so many people, we have thought a portrayal and brief description of a notable recent improvement in lime-making in California would be acceptable to our readers.

At the works of the Guadalupe Lime Company an extensive business is carried on, the kiln being a perpetual one, and a decided improvement on the old-fashioned pot kiln. The works of this company are situated upon the eastern slope of the Almaden section of the Santa Cruz mountains, about ten miles southwest of San Jose and 2½ miles from Guadalupe Station, Santa Clara county, on the New Almaden branch of the Narrow Gauge Railroad. This property was first developed about the year 1864, and the lime burned in kilns on the banks of the Guadalupe creek.

The principal quarry of this company is situated at the height of about 900 feet above sea level. It is a circular opening, and was connected by a tunnel with other workings about 150 feet below, but the tunnel has now caved in. The limestone in this quarry is about 45 feet thick, and dips to the southwest at an angle of over 30 degrees. It is a dark-colored bituminous limestone, many samples of which smell strongly of petroleum when freshly broken. Both above and below the limestone are strata of shale.

The present workings appear to be confined to smaller openings, most of which are at a lower elevation. In some of these the limestone is of a light color, but the formation presents the same general characteristics as the former. The accompanying engravings and the description, we take from the report of the State Mineralogist. Inquiry has been made by those using the old-fashioned kilns concerning the improved ones. The cuts will give those interested a good idea of the "perpetual kilns."

The limekiln, which is situated about 400 feet below the upper quarry, is supplied with limestone by trucks worked by a gravity pulley from the quarries above. The kiln is an upright circular furnace about 60 feet high, tapering from a circumference of about 100 feet at the base to about 40 at the top. It is surmounted by a smokestack 60 feet in height. This kiln is connected with an outer wall of ordinary brick and an inner one of firebrick, the space intervening being filled with concrete, altogether forming a wall of about six feet thick.

The trucks from the quarry are lowered to the charging platform, which leads to the door of the furnace. About 20 feet beneath the charging platform, the kiln is surrounded by a firing floor. On a level with this floor are three fireplaces, placed at equal distances in the main body of the kiln. The ash pits beneath the grates of the fireplaces extend directly down through the wall of the kiln, leading separately and directly to the ground or drawing floor, about 20 feet below. The space in the kiln between the level of the fireplaces and the ground floor constitutes a cooling chamber, the line being drawn from three openings at the bottom of the kiln. This kiln is charged by filling the cooling chamber with waste rock up to the level of the fireplaces, above which 18 truckloads, equal to about 30 tons, of limestone are dumped. The fires are then lighted, being fed with four-foot sticks of redwood.

After burning three days, a charge equal to 24 barrels of waste rock is drawn from the draw-holes at the bottom of the kiln, just as though it were burnt lime, and fresh limestone added at the charging door to keep the charge at the proper height in the kiln. After six drawings, which now take place in 24 hours, the waste rock is all drawn out, and the lime begins to make its appearance. The lime is sorted and shoveled into rawhide baskets, and hauled to the depot, where it is shipped in bulk. This kiln consumes from 4½ to 5 cords

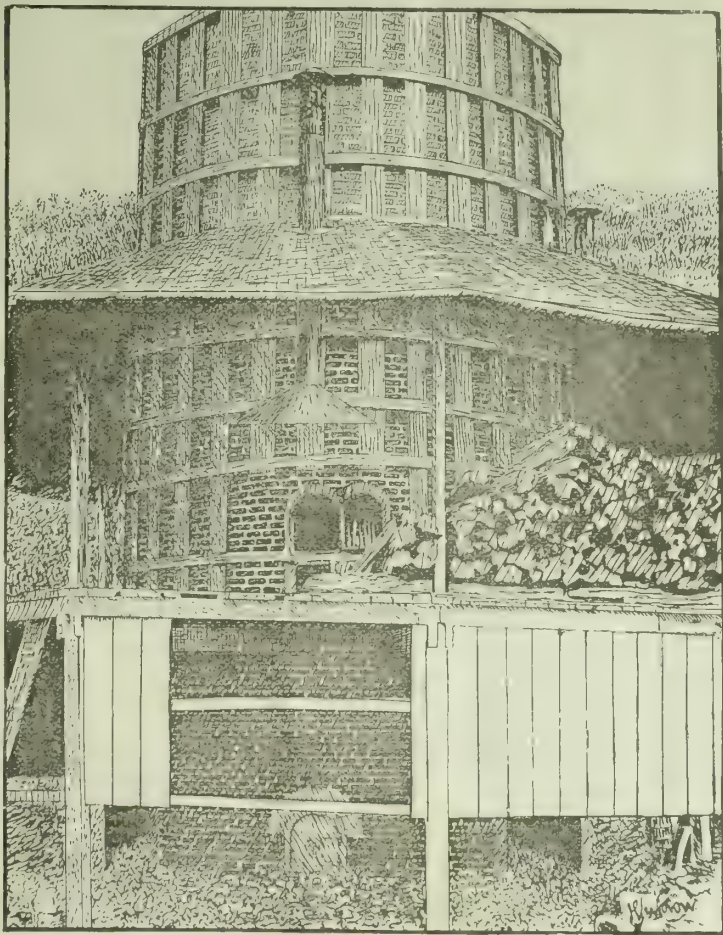
of wood in 24 hours, producing 160 barrels of lime in that time.

Co-operative Dairying.

[Written for the Rural Press by COL. R. P. MCGILROY.]

Within the past two or three months several parties in different portions of the State have

to be in the flush of milk when the pastures are short and dry, and then supplement the dry pasture with ensilaged corn fodder, alfalfa or other forage crops that can be readily grown, together with cornmeal, shorts or bran. By this arrangement, the cows will be yielding a good flow of milk when butter is high, which

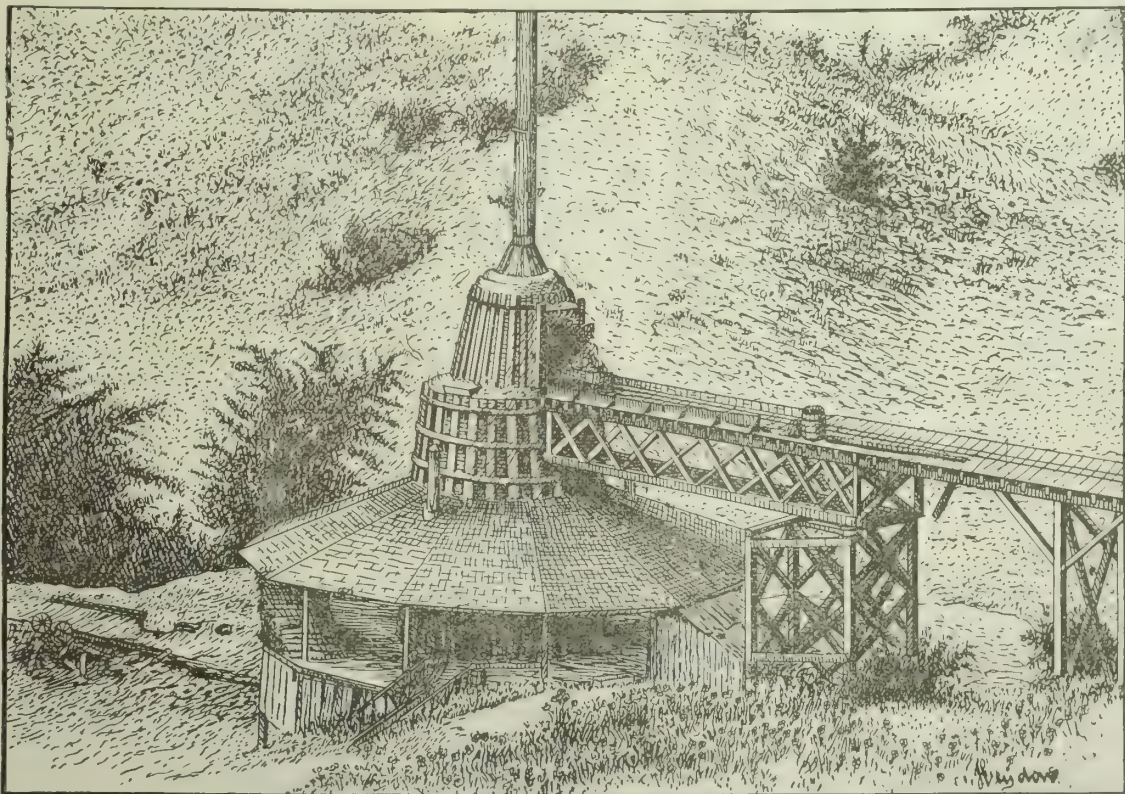


VIEW SHOWING FIRING DOOR AND DISCHARGE DOOR.

written me, asking if I believed that co-operative dairying could be made to pay. I have answered that I did not doubt it, especially if good butter or cheese was the product of the

usually is the case during the summer and fall months.

I do not apprehend that there would be any surplus butter, as there is not now enough pro-



TOP OF KILN SHOWING CHARGING PLATFORM.

creamery or factory. I have every reason to believe that it will pay as well here as it does in the Central-Western States, where for a number of years it has been successfully carried on. It will require, however, good cows—that is, cows that yield a good supply of milk, rich in butter fats if butter is to be made, or rich in casein if cheese is to be the product; well fed and otherwise cared for; the milk and cream properly handled, and a market established for the product. Neither of these requirements is hard to fill, or at least ought not to be. The system can be successfully followed, and if butter is to be the product, the dairymen should have their cows come in in May or June so as

duced in the State to meet the requirements of consumers, for if I am correctly informed, not only does Oregon ship large quantities of butter to California, but also the Eastern States have to be drawn on to supply the wants of butter consumers. And just here I would like to inquire if all the butter shipped into this State is really butter, or is the greater part of it oleomargarine, suine or a compound of hog's lard and cotton-seed oil, churned in sweet milk to give it the butter flavor, and which the United States Government requires to be sold under a special license? No doubt much of the so-called butter sold in this State is one or the other of these vile compounds, and the unsus-

pecting public is swindled every time it buys an ounce of the stuff. California should join her sister States and prohibit the sale of these compounds, except under severe penalties. [California already has a law which would check such sale if it were enforced.—Eds. PRESS]

Apropos of co-operative dairying, I quote the following which I recently found in an Eastern paper. I am personally acquainted with the creamery and most of the farmers connected with it, and believe that a careful perusal of the figures will convince any one that the business will pay. The following is the statement of the treasurer of the creamery for the year 1888:

Whole amount of milk received for the year	2,102,187 lbs.
Butter manufactured	84,342 lbs.
Average net price of butter	\$24.58
Total sales	\$22,554.96

The dividends paid to the producers of milk were as follows by months:

January	\$1.38	July	\$1.62
February	1.15	August .....	.75
March	1.14	September .....	.95
April .....	.87	October	1.11
May .....	.70	November	1.55
June .....	.60	December	1.35
Average dividend per 100 lbs. milk	\$1.01 ¼		

By comparing the amount of butter made with the amount of milk received by the above creamery, it will be seen that it required almost 25 pounds of milk to produce one pound of butter. Now, I believe that owing to the dry atmosphere of California during a large portion of the year, a better yield can be obtained; certainly the cheese yield here is better than in the Eastern States.

The creamery above alluded to received from the farmers the whole milk, from which neither any portion of the cream nor the stripings had been withheld, and separated the cream by centrifugal force, thus leaving the skim milk sweet, to be returned to the farmer, who could use it for feeding pigs and calves.

It would be interesting to know how many cows were required to furnish the amount of milk at that creamery, and also the breed. I have an idea that they were a mixed lot, with a predominance of native stock.

Another interesting point would be to know the cost of producing 100 pounds of milk. It certainly costs more where that creamery is located (Northern Illinois) than it would in California, owing to the long, severe winter and the extra amount of grain required there to keep up the animal heat.

There is thorough organization among the dairymen in the Central Western States, and co-operation is more successfully carried on there than anywhere else that I know of, and by this very organization co-operation is made successful. The creamery referred to is owned, managed and operated by farmers only, and is but a sample of what has been, and is being, done by the dairy farmers of Illinois, Wisconsin and the neighboring States, and should be an incentive to others elsewhere. The conditions of success seem to be more largely in favor of California dairymen than those referred to, and it might well be worth their while to attempt to follow the lead of those who ventured and succeeded.

GOVERNOR RUSSEL ALGER, speaking of the extent and superiority of the Washington Territory fir, says: "For several years, appreciating the fact that Michigan and Wisconsin pine lands were being exhausted, I have had my eye open for new fields, and three years ago I visited the Washington region, making a personal examination of the field. I think I am a fair judge of timber, and I don't hesitate in pronouncing the product of those regions in every way superior to our Northern pine, and other countries recognize the fact. While I was in Tacoma I saw nine vessels, bound for England, Germany and China, loading at the wharves."

A STINGAREE that weighed 165 pounds was caught in San Diego bay last week.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

HARVESTERS IN DEMAND.—San Leandro *Reporter*, May 4: The demand for the Best harvesters continues: On Tuesday four were sold to the following-named gentlemen: W. J. McIlwain of Dixon, W. S. Peddrick of Dixon, Lepenger, Fox & Co., also of Dixon, and P. H. Palmer of Pope valley. Out of the 28 harvesters constructed for this season, all but six have been sold.

HESSIAN FLY.—Mt. Eden Cor. *Oakland Enquirer*, May 2: A great many of the farmers are experiencing considerable trouble with cutting volunteer hay. The Hessian fly has done irreparable damage to the grain in this vicinity. There has been hardly a field but he has visited. The prospect for a large barley crop is very good. The wheat crop will be a comparative failure. What is left from the Hessian fly is being destroyed by the rust. The prospect for a large yield of volunteer is excellent, but the weather is not satisfactory for a successful curing.

Butte.

SIAMESE-TWIN EGGS.—Chico *Enterprise*: G. W. Graves has at his drug store on the corner of Main and Second streets a curiosity consisting of two eggs joined together by a soft ligament at the small ends. The eggs are soft shell, preserved in alcohol. After the hen had deposited the eggs, she commenced to pick them, but was scared off by the owner, who preserved the freak and brought them to town. They are separate and distinct, and only attached by the ligament.

THE FLEMING DITCH.—Gridley *Herald*: Surveys have been completed and maps made demonstrating beyond question the feasibility of thoroughly irrigating 200,000 acres of the choicest valley lands in the county with water taken from Feather river and brought by this ditch within easy reach of every land-owner in Gridley and Hamilton townships. It is proposed to take the water from the river at a point about one mile below the Thermalito hotel in a canal 60 feet wide and six feet deep, thence along Hamilton slough southwesterly. Lateral ditches will be constructed at various points to convey the water from the main canal in various directions as far north as Nelson and south to Sutter City. Two of these laterals will be located, if the scheme is carried out, between this city and the river, one along the river road to Marysville, the other about on the line between the ranches of V. P. Richards and R. E. Taylor. Another will cross the railroad north of this city and follow the Gridley ridge, while another will traverse the "dobe lands six miles west of this place. This is a synopsis of the scheme as set forth by the projectors.

El Dorado.

EIGHTH DISTRICT FAIR.—Placerville *Republican*, May 2: A meeting of the Fair Directors was held last Friday evening. The date of the fair was fixed for the five days beginning Tuesday, September 3d. Four special premiums will be offered as follows: For best general display of fruit, \$150; 2d do., \$75; best general display of vegetables, \$100; 2d do., \$50. Those who receive these special premiums will not be allowed to compete for other premiums offered in the same line. Premium lists will be ready for distribution in about two weeks. The following officers have been re-elected to serve for the ensuing year: Pres., Thos. Fraser; Sec., W. H. H. Fellows; Treas., Jas. Blair. At a meeting Tuesday night the directors also offered a prize of \$30 for the best display of county minerals and \$20 for 2d best.

TWENTY-DOZEN CHICKENS.—Eds. *Press*:—We have another incubator full of chicks, out to-day, and for a fine hatch I do not think it can be beaten. Three weeks ago to-day we placed in the machine 280 eggs, and at the first testing took out 8 and at the second 12, leaving 285 eggs in the incubator, and to-day we have 240 live chicks in first-class condition. Would be pleased to hear from some one who can show a better percentage than the above.—F. S. B., *Kelsey*, May 3d.

Fresno.

EDITORS *Press*:—We have had the usual winds and hot weather since April 25th. The damage is variously estimated by different farmers. Some think late grain only is seriously hurt. On April 20th our prospects for a crop were as fine as Fresno county ever had. As a rule, the work is done more thoroughly than formerly. Farmers are waking up to the fact that what will pay to do at all, will pay to do well. Summer-fallow twice plowed is the rule, and usually well done.... May 5th we had a good rain (.60 of an inch) which will correct the effect of the warm weather to a great extent.... There has been a large quantity of hay cut this spring. Most of it is yet in the field, and that of course will be damaged.... We are much interested at present in preparations for irrigation in the Madera Irrigation District.—E. S. R., *Madera*, May 6th.

Humboldt.

ENGLISH SPARROWS INCREASING.—Eureka *Times*, May 2: Unless some steps are soon taken to get rid of the English sparrows, which are increasing so rapidly in numbers in this city, they will become a pest. The first were brought here some years ago and turned

loose, and now large flocks can be seen on any of our principal streets. They are extending to other towns in the county and will soon be a nuisance where fruit is raised. They are of no particular benefit in any locality that we know of, and in many places in the East there is a bounty paid for their extermination. We attribute the vast increase in the number of house-flies during this and last season in a great measure to the fact that the sparrows have driven the swallows away.

Los Angeles.

IRRIGATION POPULAR.—Anaheim Cor. *Chronicle*, May 3: The election to-day for the purpose of deciding whether an irrigation district should be organized under the provisions of the Wright bill resulted almost unanimously in its favor. Four precincts in the district gave a total vote of 347, of which 334 are in favor of the district and 15 against it. One precinct remains to be heard from, but the result cannot be changed. There is great rejoicing among our citizens. Property valuation in the valley is increased by millions. Thousands of acres never irrigated before are brought under one splendid system of irrigation, and thousands of dollars of capital are now ready for investment. J. P. Zeyn, J. P. Greeley, John Hunter, T. A. Darling and Prudencio Yorba are elected directors; Max Nebelung, assessor; H. D. Polhemus, collector, and F. H. Keith, treasurer.

Nevada.

COUNTY EXHIBIT.—*Foothill Tidings*, May 3: The committee appointed to arrange for an exhibit of county products at the State Fair met at Nevada City Saturday afternoon. It was decided to exhibit at the State Fair only, and Jas. R. Nickerson was appointed to make the collection and have charge of the same at Sacramento. In addition to the premiums such exhibits may take on special entry at the State Fair, the committee will award premiums for the best jellies, preserves, dried and green fruits—\$15 for first, \$10 for second and \$5 for third premium in each of the four classes named. The committee will meet again Saturday, June 29th.

Placer.

DISTRICT NO. 20.—Auburn *Republican*, May 1: The new Directors of the Agricultural Association met in Auburn last Wednesday afternoon, all being present except Hollis Newton, who declines to serve. Jo Hamilton was elected Pres., T. J. Nichols Treas., and F. D. Adams Sec. for one year. The terms of office fell as follows: G. W. Towle and J. C. Boggs, four years; W. M. Baker and Jo Hamilton, three years; H. T. Power, two years; W. D. Perkins and W. B. Lardner, one year. The Board recommended E. J. Sparks to fill Mr. Newton's vacancy. Messrs. Hamilton, Lardner and Perkins were appointed a Committee on By-Laws; Baker, Boggs, Towle, Hamilton and Lardner on Finance; Boggs, Lardner and Adams on Printing; Boggs, Perkins and Lardner, Location of Pavilion. The next meeting will be held May 18th.

PINO PICKINGS.—The Armsby, Hatch and Porter orange groves are now all cultivated and present a nice appearance. Of the two ten-acre groves set out near here last year, less than one per cent failed—in one, eight trees in a thousand and in the other seven. All our peach orchards near here have a full crop, and we are now thinning them out. Almonds are near full size, and some black figs are beginning to color. Cherries are coming in quite freely to the new fruit company, and the growers seem happy. The first shipments paid the grower \$4 for ten-pound boxes.

EARLY CHERRIES.—Newcastle *News*, May 1: The first regular shipment of Black Tartarian cherries was made by Geo. D. Kellogg on Friday last. They were from the famous Hector cherry orchard. While cherries of other varieties had been shipped from here for some days previous to this, the shipment of Friday was the first, we believe, of the Black Tartarian variety.

San Joaquin.

BUBACH HARVEST.—Stockton *Independent*, May 4: Supt. Ladd of J. D. Peters' bubach plantation is gathering his forces for the annual pick of the bubach flower, which is now ready to be gathered. It takes a force of 150 men several weeks to pick and sack the flower for shipment to the mills in this city.

Santa Clara.

HORSES SOLD.—San Jose *Mercury*, April 27: D. J. Murphy's sale of horses at Agricultural Park yesterday attracted quite a number of buyers. Forty-two animals were put up, and the prices secured were reasonably good. Killip of S. F. acted as auctioneer. The buyers were mostly local men, though several persons from other counties were present. Among the more notable of these were Sec. Smith of the State Agricultural Society and J. D. Carr of Salinas. The horses offered consisted of seven trotting yearlings, three two-year-olds, six three-year-olds, eight trotting mares and eighteen draft horses. The colts sold at prices ranging from \$40 to \$75. The three-year-olds and trotting mares sold better than the yearlings. There was a particularly good demand for draft horses, and all of them brought good prices. Jesse D. Carr bought a gray gelding Jack, sired by Prince Albert Jr., out of a dam by an imported Percheron Norman horse, for \$162.50. Another of Prince Albert Jr.'s colts, Sallie, sired in 1886, was sold for \$175.

GUINEA FOWL.—Gilroy *Advocate*, May 4: Guinea fowls from Kentucky have been import-

ed here by O. W. Palmer, dealer in fancy poultry. This fowl is considered very profitable on farms where the range is wide, as they destroy innumerable insects and do not scratch up seeds. A hen will average 100 eggs annually and begin to lay in May. The eggs take a month to hatch. The proper number of eggs at a sitting is 16. The eggs are rich and regarded by some people as a delicacy. The birds are good eating, tender and juicy when properly prepared.

Shasta.

AGRICULTURAL ASSOCIATION ORGANIZED.—Redding, May 3: The citizens of Shasta county held a most enthusiastic meeting here to-day and organized Agricultural District Association No. 27. Judge C. C. Bush was chosen chairman; P. F. Pinkham, Sec'y; Fred Grotenfels, cashier; C. C. Bush and H. T. Ross of Millville, T. W. H. Shanahan of Anderson, C. J. Becker of Cottonwood, E. A. Reid of Buckeye, A. C. Brigman, Jerry Culverhouse and Henry Clinesmith of Redding were elected directors. A County Fair will be held this fall.

Solano.

DIXON DOTS.—*Tribune*, May 4: The last heavy storm had a bad effect on such fruit trees as peach and apricot in a few orchards in this vicinity. Bartlett pears and prunes are hardier trees and are thrifty.... There are several large lots of old wheat in the warehouses, upon which the owners will have to pay taxes.... Hay is plenty. It is selling loose in the field at from \$5 to \$6 a ton, and for \$7 delivered in Dixon. Barley is so low that it is likely a great deal of it will be cut for hay.... There are thousands of acres in sight of Dixon upon which the grain is standing waist high, and is as even as though it had been leveled with a lawn-mower. It is a sight that ought to make glad the hearts of the farmers.

Sonoma.

A WONDROUS APPLE-BLOSSOM.—Sonoma *Index-Tribune*, May 4: Mr. S. H. Shaw discovered a freak of nature in the shape of a wonderful apple blossom on one of his trees last Wednesday morning. The blossom, which resembles a large-sized rose, measures 9½ inches in circumference and is what may be termed a second-crop blossom. The twig containing it was brought to this office, and is an object of much curiosity to visitors. Immediately alongside the blossom is a cluster of small apples about the size of a thimble. An ordinary apple blossom contains five petals, while this one has 30 or 40.

ORCHARD EXTENSION.—Mrs. K. F. Warfield of Ten Oaks Vineyard has planted out this season 2000 fruit trees of the choicest varieties, the greater number being French prunes, Kelsey Japan plums, Mammoth chestnuts, and peaches. Eight varieties of Japanese persimmons were also set out.

Tulare.

IRRIGATED WHEAT.—Tulare *Register*, May 3: Wm. Brown has furnished this office with some samples of wheat that show a good prospect. Some of it grown on land that was irrigated two years ago is nearly six feet in length and fully two feet higher than that which has never been irrigated. This shows the lasting effects of irrigation and is another argument for winter irrigation. Mr. Brown says the difference is quite marked in the two pieces where they come together, the stalks on the irrigated piece standing high above the other within 30 feet of it. Some of the heads of this grain are fine looking and will fill without additional rain.

BARLEY, OATS AND APPLES.—Visalia *Times*, May 2: Samuel Halstead, who farms a ranch on the North fork of the Kaweah river, 35 miles northeast of this city, on Saturday last brought to the *Times* office a sample of the beardless barley growing on his ranch, the stalks of which are over five feet in length, and contain well-filled heads that measure over four inches in length. Accompanying the barley was a bunch of stalks of wild oats that measured nearly seven feet in length. Mr. Halstead also presented a sample of green apples that he had kept over winter, and which he says he will have until green fruit comes in again this year. The apples were of two varieties—the Winesap and the Limber Twig, and were not in the least dried up.

THE RAVAGES OF THE CUT WORM in the orchards, vineyards, alfalfa and wheat fields of this county have somewhat abated in the past three or four days, the supposed cause being the extreme heat of the sun. I. H. Thomas estimates that they have destroyed young trees in his nursery to the value of at least \$1500, while the "Delta" nursery of Jacobs & Co. has suffered more extensively. At the Briggs orchard the worms have done considerable damage to the apricot crop, which had previously promised to yield abundantly. Many farmers claim the loss of several acres each of growing grain from the same cause.

THE CHEESE FACTORY BEGUN.—Hanford *Sentinel*, May 2: Last Thursday the directors of the Hanford Cheese Man'g Co. met in Hanford and did an excellent day's work. They bought an acre of nice land of J. N. Benedict, received bids and awarded the job to Mr. Ford of Hanford, who is a thorough mechanic, and on Friday he began the preliminary work of erecting the building, which is to be 30x60 feet on the ground, and 20 feet in height, two stories, on a foundation four feet high. The first floor will be divided into a workroom 20x30 feet and a cheeseroom 30x40 feet, with 5 rows of double shelving, 12 shelves each, lengthwise the building. These will hold about 1400 full-size

cheeses. There will be a storeroom, 30x40 feet, and a suite of five living-rooms 20x30 feet, partitioned off in the upper story. The land is located one-half mile directly east of Hanford.

Tuolumne.

MOVING FOR A FAIR.—Sonoma Cor. *Chronicle*, May 4: A public meeting was held here to-day for the purpose of organizing for the Twentieth Agricultural District Fair. Seventy-five signatures were obtained, and the following four were designated for appointment by the Governor as directors: Dave Oliver, Thomas Berney, James Goodwin and D. W. Berger. A committee of three, consisting of F. W. Street, E. A. Rodgers and George W. Niola, were appointed to visit Calaveras county, which with Tuolumne forms the district, for the purpose of obtaining signatures and otherwise pushing the organization. More interest was manifested to-day than in any public movement for a long time.

Ventura.

BEAN PLANTERS.—Ventura *Free Press*, May 3: J. D. Morgan has just completed the tenth of his bean-planters, for which he will receive \$80 each. This machine is likely to become very popular with the farmers, as it commends itself to all who use it or see it in operation. It is the invention of Mr. Morgan and he made the patterns for the castings and other parts at his own shop in this town.

NO SCALE.—M. E. Isham of the County Fruit Pest Commission, informs the *Free Press* that he recently examined the orchards in and about Bardale, where the incipient scale has once been found, and that he finds no signs of any there at present. He feels encouraged to think the pest is stamped out, but will make further examinations during the season and until assurance is made doubly sure.

Yolo.

A PILE OF PRUNES.—R. B. Blowers presented the Woodland *Mail* the other day with a branch from a Petit prune tree. The branch was about four feet long and bore nearly 200 prunes, which even at this early season are quite large. Mr. Blowers states that prune trees of this variety do equally well every year in Yolo county.

HOGS RUN WILD.—Woodland *Mail*: It is reported that many wild hogs infest the willow thickets near the sink of Cache creek. These hogs are, although running wild, the property of some person living in that vicinity, and he might cause hunters considerable trouble if they killed his swine. Some of the animals are vicious enough to be entitled to death in its most horrible form, but their owner might not believe this. A few days since one of these "wild hogs" was killed, his head being blown off by a charge of buckshot. One of his tusks measured seven inches in length.

ARIZONA.

GOOD CROPS.—Florence *Enterprise*, May 4: For the past two weeks the farmers of this valley have been busy cutting hay and grain. The crop of hay is something above the average, and as the acreage has been greatly extended this year, it will be both abundant and cheap. The barley being harvested is in splendid condition, and a large crop is expected. The wheat is looking fine, and will be ready for the headers in a couple of weeks. The fruit crop of the whole valley will be an unusually heavy one, the trees and vines being loaded down with it. Figs are ripening, and the season of plenty is at hand.

SEMI-TROPIC FRUITS.—All the young orange trees planted last fall in and about Florence are doing finely and making satisfactory growth. Among the semi-tropical fruits that are known to do well here is the date, which thrives exceedingly. Judge Bartleson has several fine date palms in full bearing, from which a good crop has been taken for several years.

WASHINGTON TERRITORY.

RIPE CHERRIES IN APRIL.—W. W. Union, May 4: Dr. N. G. Blalock on Thursday evening showed a reporter a handful of fully matured cherries, grown on a tree in the Walla Walla valley. Last year the first ripe cherries were picked on May 12th. Walla Walla valley has always been known as a land of immense wheat yields, early vegetables, and the fine quality of all the products of its soil. We all know that our soil is as prolific as that of California, but few know that we are as early in matured fruit as that land of the semi-tropics.

EUREKA FLAT.—Imagine, if you will, one grain-field 30 miles long by 10 miles wide, the surface undulating, billowy, with not a stream in the whole vast expanse, and but few wells of living water. Land-locked by the hills of the Touchet on one side and the Snake river hills on the other, the field spreads out like a canvas. It is not a field of grain, but a grain-field. As the train passes, there will be seen a thousand-acre patch of fall-sown grain, still an orange green, owing to the admixture of wild mustard. Perhaps next to it will be seen a stretch of brown stubble, while beyond will stretch the dark upturned earth of the summer-fallowed field. But the gem of which these things are the almost indistinguishable setting, is the dark-green fields of spring and late fall-sown grain, which in the aggregate amount to about 30,000 acres, and in a few months will yield its golden harvest of an average of from 35 to 40 bushels to the acre. It is through the center of this vast granary that the O. & W. T. has been built.

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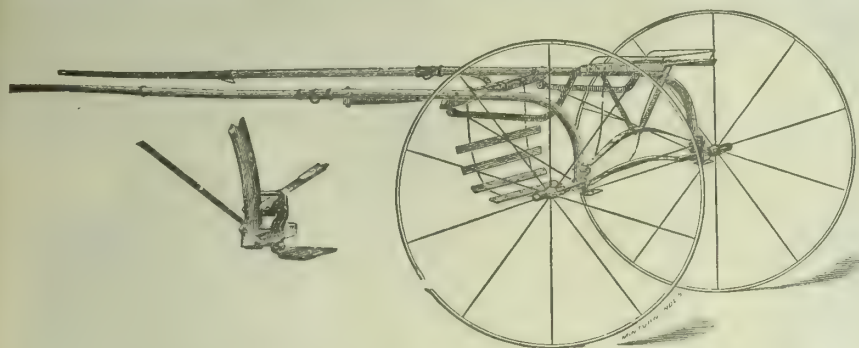
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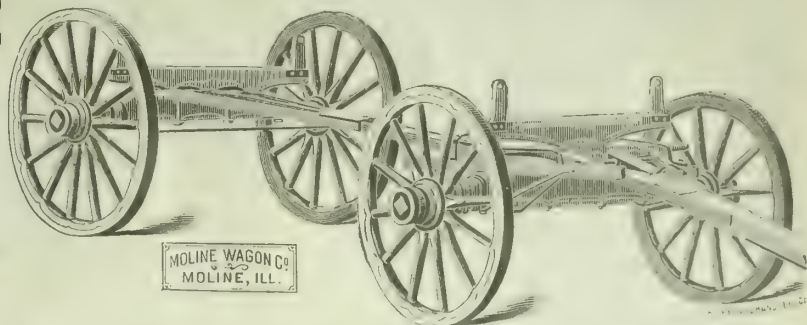
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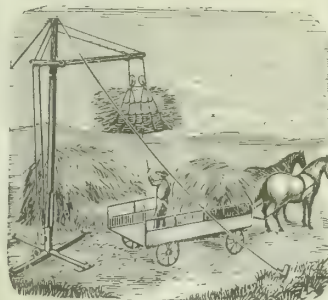
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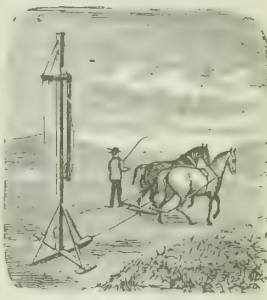
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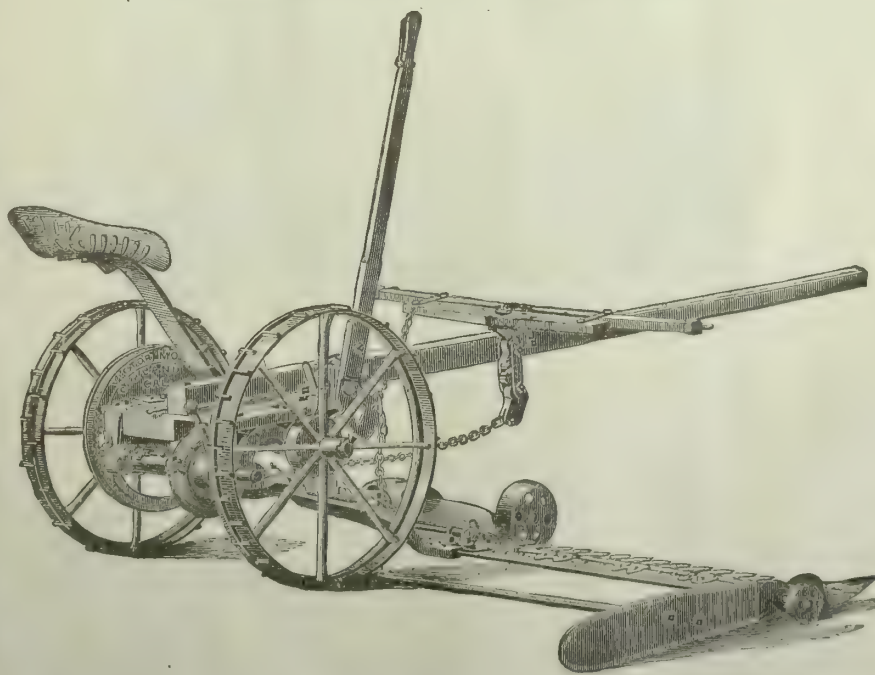
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4 Feet Cut,
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5 Feet Cut,
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No Side-Draft.

SHEEP AND WOOL.

Wool Facts and Figures—No. 5.

(Written for the Rural Press by J. R. P.)

In answer to an inquiry from a subscriber to the Rural Press, the writer will state that "noils" is the name given to various fibers and parts of fibers combed from scoured wool, such as short fibers, knots, broken fleeces and tangled fibers. They are usually used in making woolen clothing goods by carding and mixing with longer fibers. "Waste," or as usually known "ring waste," is the name given a certain kind of wool imported into the United States so as to avoid paying the heavy duty imposed on the same class of wool in good condition or ready for immediate use. It is manufactured in France and Belgium, where it is known as couronnes—crowns or rings. It is bought almost, if not entirely, by exporters for shipment to the United States. It is a highly purified scoured wool, composed of wool tops or comb wool, but when not made for export it is the tangled slubbing or wool top that, through accident, becomes disarranged in the process of spinning it into yarn. By avoiding the full extent of the duty on the wool in calling it "ring waste" the mills secure at a lower cost a highly purified class of wool to be used in the manufacture of cassimeres. In being made from wool tops, it is considered the cream of the wool, by reason of having had the short and broken fibers or bottom combed from it by machinery used for the purpose. American manufacturers treat it to a steam bath, which opens the crown or rings, when it is at once ready for the carding machines.

California, like Texas, only had the coarse-wooled inferior Mexican breed of sheep in the earlier days of its history, and even these were not held in large numbers. Oregon, on the contrary, had graded sheep which were brought across the plains by the earlier emigrants. The sheep in Oregon degenerated to a very great extent by inbreeding and neglect, so that the bulk of the wool became more or less coarse and poor, with a large sprinkling of hairs, but with renewed attention to breeding by importing fine full-blood merino rams, the grade of wool has been raised, with that from the more favored localities fetching high prices, fully as much as the fancy clips in this State fetch. The demand from 1850 to 1852 in this State became so large for sheep, principally for mutton, that it became necessary to import in increased numbers. This demand was met by New Mexico, which sent us in 1852 about 40,000 head, in 1853 135,000, in 1854 27,000, in 1855, 19,000, in 1856 200,000, and in 1857 130,000. In 1858 the trade was shut off by an Indian outbreak. The breed of sheep brought from New Mexico was improved with the happiest result by importing Spanish merino rams from Missouri, Illinois and Ohio. The grade of wool by crossing with merino was not only improved in quality, but made heavier, for the fleeces were raised from, on an average, one pound each to two pounds and over for the poorer grades, to over three pounds to the fleeces for the half-breed merinos, and to over four pounds to those above half-breeds. While the most of our growers have bred to merino rams, others again have crossed with the Cotswold, Leicester, Shropshire and Lincolns to get a longer wool and a better carcass. It is not the writer's purpose to discuss the merits of the different breeds introduced and bred in California, for there can be no doubt much depends on the soil, feed and climate, which in this State are of many kinds, varying according to locality. While not disposed to discuss their relative merits, yet experience has demonstrated that, taken as a whole, the best breed adapted to the State is those bred up to three-fourths merino, the grades above that, it is claimed, are less hardy. In California there appears to be a strong growing tendency in all directions to make crosses that will give a first-class grade of wool and at the same time a large, well-formed carcass for mutton. It is asserted that by crossing the merino with the Cotswold and Leicester, for the first generation, the mutton will equal in quality the Southdown, while the wool is superior to the Cotswold. To breed beyond the first generation in that direction has not, so far as I know, proven a success. Baechtel Bros. in this State, it is said, have recently successfully experimented in crossing the merinos with the Downs. It is said that by this cross they have secured a breed with a larger carcass and more wool than the former.

In view of the more general desire to breed for the carcass as well as for wool, some sheep-growers have begun to carry out in practice their advocacy of the theory that by feeding, merinos can be improved so as to equal the very best mutton sheep. Their theory is that merinos are poorly fed, and, when young, kept lean, which makes it difficult to fatten them when mature sheep, while the mutton stocks have been fed as well as bred to their superior capacity for taking on fat. In this direction they point to the success attending the feeding of Leicesters. It will only take a few years to thoroughly test the theory, and if successful, they will greatly increase the value of the merinos to the farmer, for in times of wool depression he can find a good market for his mutton.

In early days there was quite a rivalry be-

tween the breeders of fine bucks. The leading contestants for the topmost rounds were J. B. Hoyt, Col. W. W. Hollister, Flint & Bixby and two or three others whose names the writer cannot now recall. Although the latter bred chiefly for use in their own flocks, yet they at times sold off some of their bucks. The highest price paid for a buck was, if my memory does not fail me, \$10,000. The ram was known as "Abe Lincoln" and bred from the best imported Vermont breed of merinos. At one time there was considerable discussion regarding the relative merits of the French and Spanish merinos, each having warm friends among growers. Of necessity, more attention was given to breeding for the best grades of wools by the building of woolen factories, the first of any importance being the Mission Woolen-Mills, which was soon followed by the building

mand on this coast and also in the Central States. In order to meet the trade call, several additions have been made to the building and machinery. Outside of this, the manufacture of woolen goods of late years has not been a financial success, as witnessed in the rapid depreciation in the value of stock in the woolen-mills. At one time that of the Pioneer Woolen-Mills, which was consolidated with the Mission Woolens, sold for over \$1000 a share, but within the past three years sold below \$100 a share, and that, too, after the payment of a \$50-per-share assessment. Various reasons are assigned for the depreciation in the value of the stock, the leading being the close competition with the East for the trade of this coast since the building of the overland railroads, higher cost of labor and few manufacturers of ready-made clothing and underwear, owing to

in the sewing of the belt, and the ties are knotted with careless grace about half-way down the left side of the skirt near the front.

The over-dress has long coat-tail backs and short fronts. The waistcoat is formed of surplice portions of armure arranged upon closely-fitted fronts of lining, over which are placed outside jacket or ornamental fronts that are shaped by single bust darts. The jacket fronts roll back above the bust in large Directoire revers that are faced with velvet, and below the revers the front edges are followed by a row of Persian band. The surplice portions cross in the usual way, and their lower ends pass under a broad Directoire girdle of velvet. Persian bands overlie the exposed portions of the fronts, and the high standing collar is concealed beneath a band of the same. The remainder of the adjustment is performed by under-arm and side-back gores and a well-curved center seam. Below the waist-line of the side-back seams is allowed extra fullness, which is disposed in forward-turning plaits; and the center seam is discontinued at the top of coat-laps. A pocket-lap of velvet rests on each hip, its upper edge joining the lower edge of the jacket fronts and under-arm gores, and its curved edge falling jauntily upon the skirt. The coat sleeves are each trimmed



Fig. 1—LADIES' DIRECTOIRE COSTUME.

of the Pioneer Woolen Mills, both located in this city. The best of machinery was in use. The blankets and flannels, particularly the blankets, turned out by the factories soon gained them a wide and favored recognition. There can be no doubt but the blankets had no superior either in this country or abroad, while the flannel stood very high, which gained in reputation as the grade of wools improved in quality, and machinery was secured to take out the burs and seeds which grow so rank in many parts of the State. The first successful manufacture of cassimeres on this coast was made at the Oregon City Mills, Oregon City, Oregon. The machinery used for this purpose was of the very best and latest improved and well adapted to turn out any style or pattern desired. Owing to the limited market for the goods on this coast, the woolen company or their agents had the bulk of the cloth made up into ready-made clothing, which found good sale. The first successful manufacturing on a large scale of hosiery and other knit goods on this coast was made by the California Hosiery Co. of Oakland, California. Their goods have met with a good market and a steady increasing de-

the cheapness with which it can be done at the East.

Fashion Notes.

Ladies' Directoire Costume.

FIG. 1.—Chocolate-brown Henrietta cloth, mode-colored armure silk and darker brown velvet are here combined in the costume, with the materials and Kursheedt's Standard Persian bands for trimming. The round, four-gored skirt is entirely concealed by a flat drapery, which is arranged in deep, forward-turning side-plaits at each side of the center of the front as far back as the side-back seams; the drapery is gathered across the top for the remaining distance, descending upon the breadth in waterfall style. The center plaits are each ornamented near the foot with three horizontal strips of Kursheedt's Standard Persian band arranged about their width apart. Long sashes of armure are placed one at each side; their upper ends are plaited and included

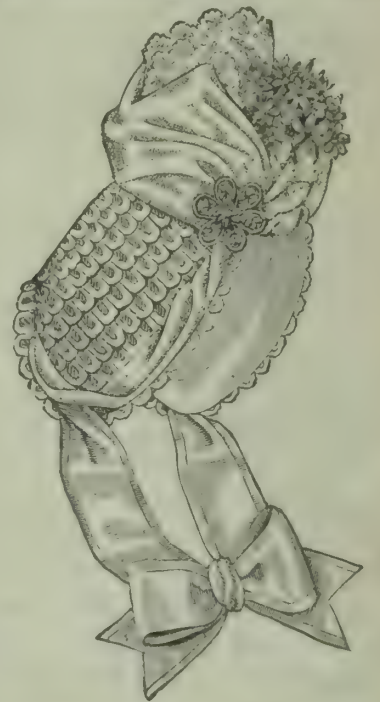


Fig. 2 LADIES' STRAW BONNET.

across the front of the wrist with a cuff facing of velvet headed by a strip of Persian trimming, which is met by a folded band of armure that is deepest at the outside of the arm, from which it narrows gracefully to the inside seam.

The mode is a pleasing one for reception or street costumes, and other colors and textures may be handsomely associated in the same way. Embroidered flouncings, bordered goods in either cotton or woolen textures, figured poplins, fancy cashmeres, etc., are especially appropriate for a costume of this description. The sash-ties may be omitted without detracting from the good effect. Sometimes the over-dress will be of a different color from the remainder of the gown.

The *chapeau* is a Directoire shape. The brim is smoothly faced with velvet, and the crown is encircled by a band of the same; ribbon and ostrich plumage complete the tasteful garnitures.

Ladies' Fancy Straw Bonnet.

FIG. 2.—This bonnet, a capote in shape, is made of loops of very yellow braid outlined with fine gold thread. A narrow twist of light-yellow crepe is placed at each side, and just in front the crepe is arranged in a large, massed knot, in which is set a fan of gold embroidery and a bunch of deep-purple violets. At the side, quite low down, is a fancy gold pin shaped like a daisy. The ties are of yellow grosgrain with a narrow edge of gold; they are looped just beneath the chin in a formal bow. If the yellow ribbon is not becoming so close to the face, the ties may be of dark-brown or purple velvet.

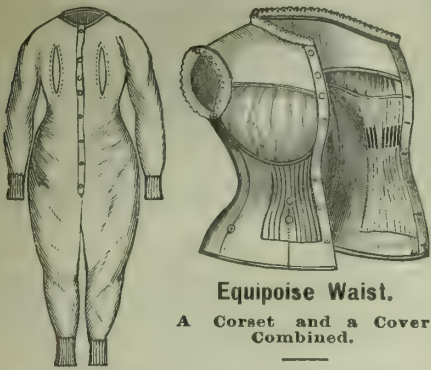
Cheap Money for Farmers!

\$550,000 TO LOAN ON RANCHES ON MORTGAGE; large sums below market rates. S. D. HOVEY, 318 Pine Street, San Francisco.

\$500,000

TO LOAN AT EIGHT PER CENT PER ANNUM, AND mortgage tax paid by lender on approved security in Farming Lands. A. SCHULLER, 206 Leidesdorff street, San Francisco.

DRESS REFORM.



Equipoise Waist.
A Corset and a Cover Combined.

Union Underflannel, Jersey Fitting, Ready Made and Made to Order.

The Perfect Corder Corset, all colors, for ladies and children; button or steel front. Agent for Jenness Miller Patterns. Subscriptions taken for the Magazine Dress. Gold Medal awarded these goods at State Fair, 1883. Corsets ready-made and made to order. Send for Illustrated Catalogue and price list.

MRS. M. H. OBER,
332 Sutter Street, San Francisco.

SEE OUR NEW WOODWORK!

—THE—
Most Happy Combination

—OF—
UTILITY and ART
Ever Produced.



See our New Attachments. Buy nothing else. Write for terms and prices, cards and banners to THE NEW HOME SEWING MACHINE CO. CHAS. F. NAYLOR, Gen'l Manager, 725 Market St., History Bldg., S. F. Local Agencies everywhere.

Z. T. WRIGHT,

PORTLAND, OREGON.

Dealer in Special Goods.

Advance Engines and Threshers.

The Best Thresher and Engine in the World.

The Straw-Burn ing Engine
Is the Latest and Best.

Shipman and Acme Coal Oil Engines,
No Dirt, no Engineer Required.

Laundry Machinery,

Kriebel Engines

—AND—
Steam Generators.

BRASS GOODS

Of all Kinds.

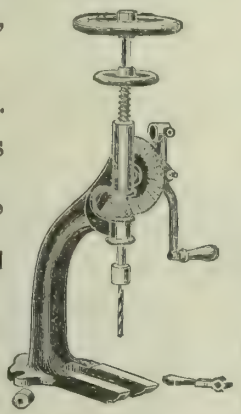
Challenge Axle Grease.

Farm, Church and School Bells.

TRAHERN PUMPS.

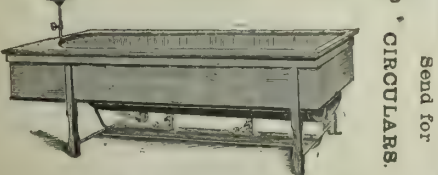
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Fire Engines and Extinguishers.



Farm Drill, Only \$8.00.

Blacksmith Drills and Forges.



SELF-HEATING BATH-TUB,
No Hot Water Pipes to Heat your House.



Fryer's Remedies are guaranteed to give satisfaction or money returned. They consist of:
Fryer's Abietene Cough Balsam.....75 Cts.
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Fryer's Abietene Blood and Liver Pills.....25 Cts.
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Fryer's Abietene Porous Plaster.....25 Cts.
W. W. Haney, 221 Sacramento St., S. F., says: "Abietene cured me of Rheumatism, Dyspepsia and Kidney trouble, after other remedies had failed. I used it both internally and externally."
J. E. Moore, near Stockton, Cal., says: "I use Abietene for man and beast; for inflamed eyes and swellings, it has no equal. Am never without it." The genuine and original bear the fac-simile signature of D. F. FRYER. For circulars, etc., apply to D. F. FRYER, Oroville, Cal.

THE GIANT POWDER COMPANY.

PATENT OWNERS OF

NOBEL'S DYNAMITE,
NOBEL'S EXPLOSIVE GELATINE,
NOBEL'S GELATINE-DYNAMITE,
Best and Strongest Explosives in the World.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.
BANDMANN, NIELSEN & CO, General Agents, San Francisco.

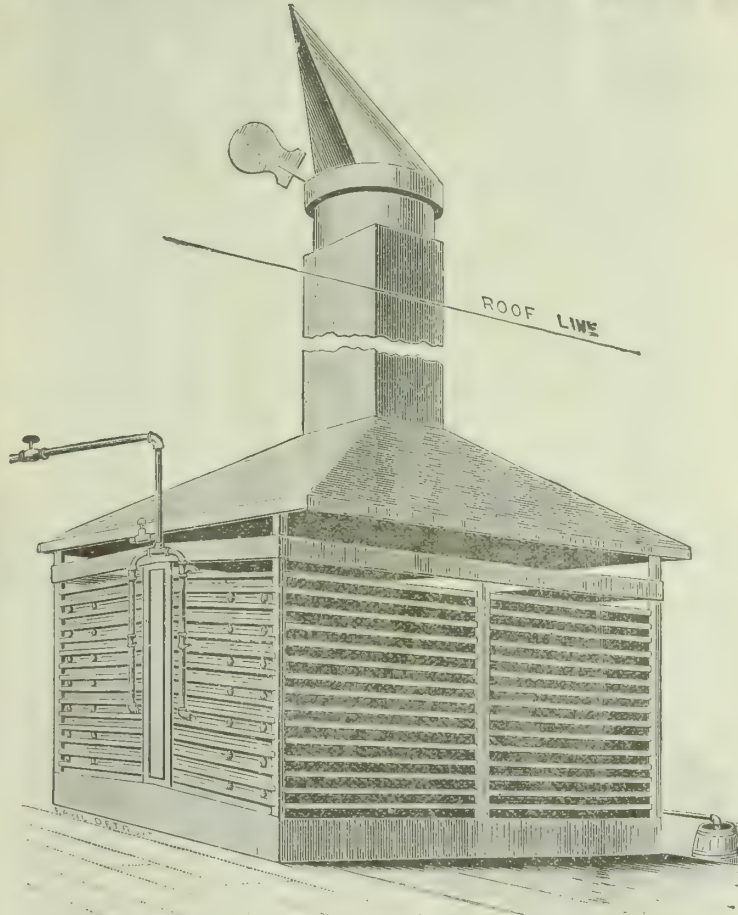
JUDSON POWDER,

The Only Reliable and Efficient Powder
For Stump and Bank Blasting. From 5 to 20 pounds blows any Stump, Tree or Root clear out of ground at less cost than grubbing. Railroaders and Farmers use no other.

J. H. WYLIE.

SOLE AGENT FOR THE PACIFIC COAST OF THE

ACME STEAM HEAT EVAPORATORS.



ABSOLUTE SAFETY FROM FIRE.

EASILY OPERATED.

No moving of Trays after Fruit enters the machine. Any temperature desired can be maintained uniformly throughout the entire machine. We can yield a heavier product, at less expense for fuel and labor, than is done by any other system.

J. H. WYLIE, No. 37 Market St., San Francisco.

Kodak

A Camera with which any one, without previous knowledge of photography, can make excellent pictures. Photography reduced to three motions—point the camera, press the button, turn the key—and the rest will be done for you at the San Francisco Agency, unless you prefer to do it yourself. Weight of Camera, loaded for 100 pictures, 26 ounces. Enclosed in sole leather carrying case with shoulder strap and is no larger than a field glass. Price, complete, \$25. Reloading for 100 pictures only \$2. The Kodak will photograph anything, still or moving, indoors or out, and can be brought into use without a moment's notice, as no tripod is required and it is not necessary to focus. Call and see the instrument or send 2 cents in stamps with request for Kodak "Primer" with sample photograph.



Partridge

PHOTOGRAPHIC OUTFITS AND MATERIAL.
Magic Lanterns and Lantern Slides.
Most Complete and Carefully Selected Stock on the Pacific Coast.

SANTA ROSA NATIONAL BANK,

Cor. 4th & B Sts., Santa Rosa, Cal.
Paid-up Capital, \$100,000.

OFFICERS:

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LEWIS M. ALEXANDER, Cashier.

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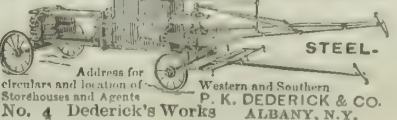
CANE MILLS

More kinds and sizes of Mills and Evaporators, for Sorghum and Sugar Cane, are made by The Blymyer Iron Works Co., of Cincinnati, O., than by any other works in the world. They are the sole makers of the Victor, Great Western and Niles Mills, the Genuine Cook Evaporator, and the Automatic Cook Evaporator. Send for Catalogue, Prices, and The Sorghum Hand Book for 1889.

THE DOG In health, habits and disease. All breeds and treatment; 50 cuts; 25c. This office.

DEREDICK'S HAY PRESSES.

Made of steel, lighter, stronger, cheaper, more power, everlasting and competition distanced. For proof order on trial, to keep the best and get any other alongside if you can. Reversible Full Circle Hay Presses, all sizes.



Address for circulars and location of Western and Southern P. K. DEDERICK & CO. No. 4 Dederick's Works ALBANY, N.Y.

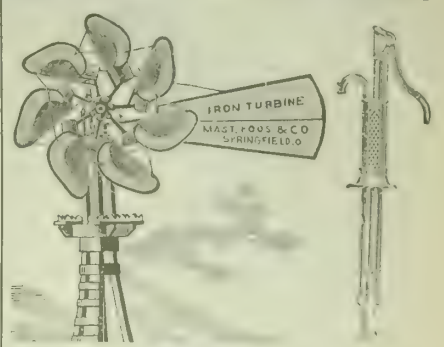
Poultry and Stock Book

Niles's new manual and reference book on subjects connected with successful Poultry and Stock Raising on the Pacific Coast A New Edition, over 100 pages, profusely illustrated with handsome, life-like illustrations of the different varieties of Poultry and Live-Stock. Price, postpaid 50 cts. Address PACIFIC RURAL PRESS Office, San Francisco, Cal.

BACK FILES of the PACIFIC RURAL PRESS (unbound) can be had for \$3 per volume of six months. Per year (two volumes) \$5. Inserted in Dewey's patent binder, 50 cents additional per volume.

Windmills and Pumps.

THE IRON TURBINE WIND MILL



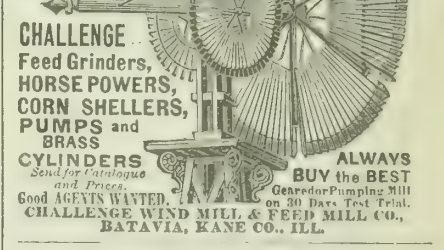
BUCKEYE FORCE PUMP,

The most powerful and durable
Combination for Raising
Water in the World.

SEND FOR DESCRIPTIVE CATALOGUE.

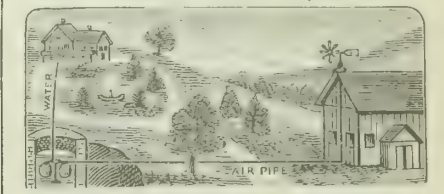
P. P. MAST & CO.,
31 MARKET STREET, SAN FRANCISCO.

WARRANTED not to blow down off the tower, and that our Gearred Wind Mills have double the power of all other mills. Mrs. of Banks, Wind Mill supplies, and the Celebrated



CHALLENGE Feed Grinders, HORSE POWERS, CORN SHELLERS, PUMPS and BRASS CYLINDERS. ALWAYS BUY the BEST Gearred Pumping Mill on 30 Days Test Trial. CHALLENGE WIND MILL & FEED MILL CO., BATAVIA, KANE CO., ILL.

The Best is the Cheapest.



COMPRESSED AIR, WIND MILL AND POWER PUMPS.

Simplest and Best Method for Raising Water to any Height.
Runs in the lightest winds. Works in the heaviest gales. Does not get out of order. Needs no oiling or other attention oftener than four times a year. No wearing parts exposed to the weather. No tower required, as Wind Mill can be located in the best exposure (on barn or hill) at any distance from water supply. Pumps five times more water than any other wind mills. Adapted to any size well. Recommended by distinguished engineers. The strongest and best pump made for farms, mines, railway service, drainage and irrigation. Send for catalogue.
Hartford Compressed Air Pump Co., Bound Brook, N. J.

HORSE POWERS, Windmills, Tanks

and all kinds of Pumping Machinery built to order. Awarded Diploma for Windmills at Mechanics' Fair, 1885. Windmills from \$65. Horse Powers from \$50. Send for Catalogue and Price List. F. W. KROGH & CO., 51 Beale St., San Francisco.

LONDON PURPLE

The farmers of America who have used it have saved their crops, and also SAVED

3/4 Million Dollars!

in the cost; while those farmers who have used other poisons have needlessly paid away and LOST

Six Millions Dollars!

If your merchant has not got LONDON PURPLE

write to us and we will send you the name of the nearest dealer who has it.

HEMINGWAY'S LONDON PURPLE CO. Ltd
90 Water St. NEW YORK. 60 Mark Lane LONDON.

Eastern Stanislaus.

EDITORS PRESS:—This 5th day of May, 1889, is a remarkable day in Stanislaus county. We have a rainstorm, an unusual thing in this part of the San Joaquin valley at this time of year. April was dry, and on several consecutive days the temperature was as high as 90°. Much grain was injured past redemption, but this rain may help the late sown. It is difficult at present to say whether or not the gain on the growing crops will equal the loss in newly mown hay. The loss in hay will be heavy, and if the rain does not soon hold up, much heavy grain will fall, as the soft straw is not strong enough to bear up the weight of the heads of wheat now filled. The wind is strong, which will make matters worse. The present is as heavy a rain as we have had this year, and is still pouring down.

This wonderful departure from former seasons will trouble the dreams of our irrigation friends. Four systems of

Canal Irrigation

Have been on foot for some time, namely, the Turlock district, the Modesto district and the Westside district, under the Wright law, and the Oakdale district, under the management of a private corporation.

Except in the Oakdale district, not much has been done, unless to pension engineers and lawyers at immense fees. As to Oakdale, the charges of the engineers are not an exception; about \$2000 has been paid for engineering 12 miles, with one tunnel and ten dug-outs, the rest being nearly level. Six hundred dollars, or 40 days, at \$15 a day, should have accomplished the entire work. But apart from this, the Oakdale canal is being pushed successfully. The Stanislaus river runs west, and the canal follows that direction for 12 miles, two miles of which at the east end, and three miles at the west end, are completed. Work is partially suspended now, but will be resumed early in the autumn, and the canal will be finished in time to use water for the spring of 1890. Land is already rising in value in consequence of this enterprise.

This canal reaches from Knight's Ferry to Oakdale, and will irrigate a large portion of the adjacent country.

Oakdale

Is a town of about 1500 inhabitants, situated at the south end of the Stockton & Visalia railroad. The distance to Stockton is 36 miles. Much freight is brought here by rail, and taken from here to the mines in the mountains by wagons. This trade and the wheat and wool trade constitute the principal business. Oakdale is bound to develop now that the canal is a certainty. The country around is level and well adapted for raising fruit. Oakdale is the second town in size in the county, Modesto alone being larger. The crops around this place have so far promised an abundant yield, though this storm may prove disastrous. You will probably know the result by telegraph before this is published. Our county depends largely on the wheat crop, and when that is a failure everybody gets the blues.

S. B. McCORMICK.

Oakdale, May 5, 1889.

A Noble Tribute.

[Private.]

March 15, 1889.

MESSRS. DEWEY & CO., S. F.:—Please stop the Rural Press from the present date—not that we do not want the paper, but to ask you to repeat the past we cannot do. As we have done our best by you, we can do no more. I think I have taken the paper 17 or 18 years. Three times I have been delinquent two years or near that. For nearly five years I have not been able to work. We have 11 children living; have lost several crops in the last ten years. The last two crops were failures. With all this, it has not been an easy matter to do even as well as we have done.

You have all your money for the paper, but you lost the use of part of it for a while. We regret to give up the Rural, even for the present, but we must have it as soon as we can send the money. Long live the Rural! All this after mature thought.

R. S. E.

[Now that it has rained, we think our friend will allow us to send the Rural a while longer. We shall forward it any way, and shall never have other than good words and kind feelings for him and his large family, the children of which we hope will grow up in honor and prosperity, and all receive at least some lasting benefit from our paper.—EDS.]

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

A. F. JEWETT—Tulare Co.
F. B. LOGAN—Southern California.
H. G. PARSONS—Southern California.
O. WILSON—Sacramento Co.
J. C. HOAG—San Francisco.
CHAS. F. BLACKBURN—Idaho.
FRANK S. CHAPIN—Colusa Co.
MRS. E. J. STEPHENS—Sierra Co.
R. G. HORTON—Montana.
E. H. SCHAEFFER—Calaveras and Tuolumne Cos.
WM. WILKINSON—Amador and San Joaquin Cos.
CHAS. OGDEN—Stanislaus Co.
R. G. BAILEY—San Francisco.

DISTRICT FAIR.—A dispatch from Susanville, May 6th, announces that the fair for the 11th Agricultural District this year will be held at Quincy, Sept. 23d to 26th, inclusive.

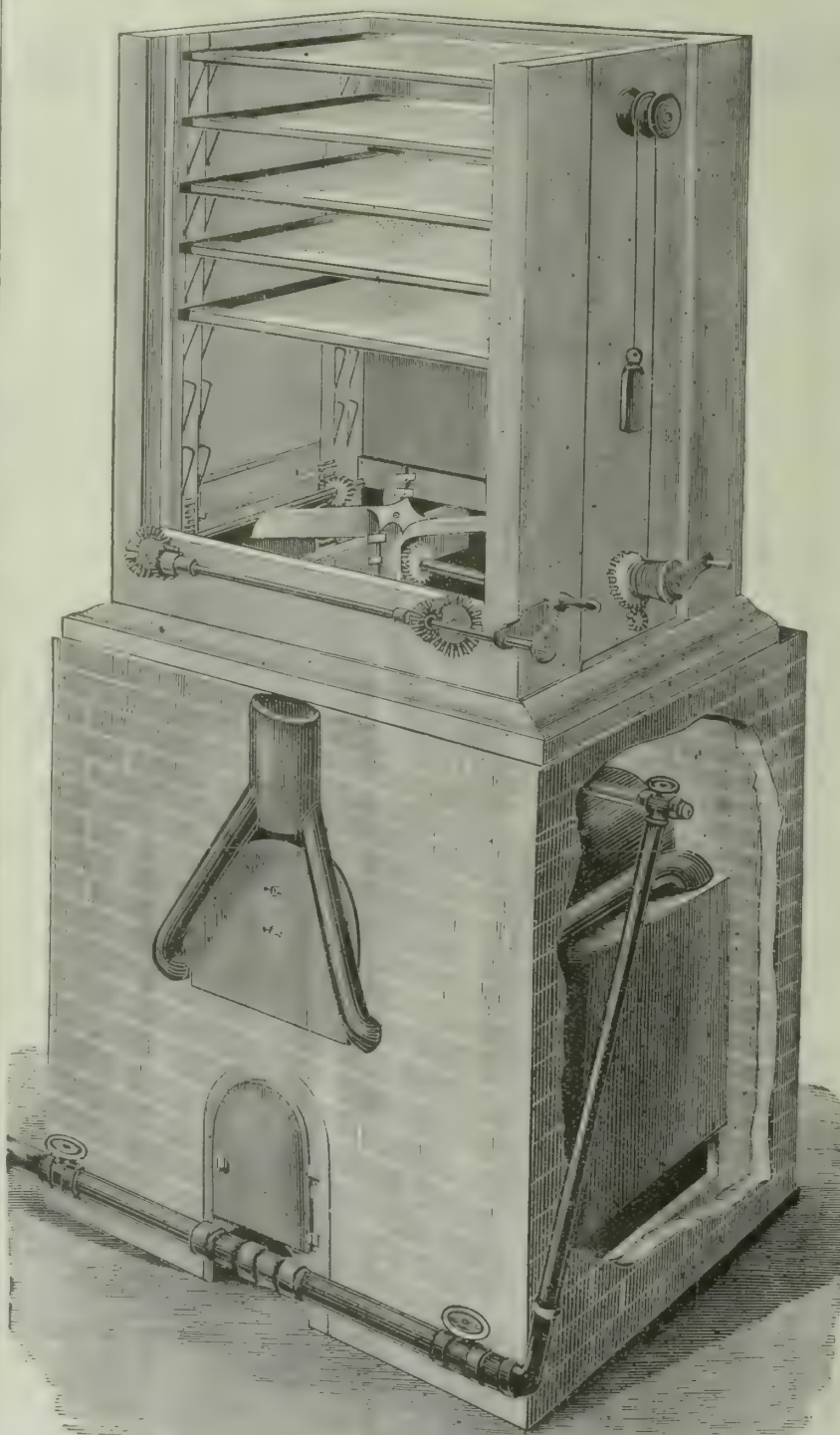
The Cassidy Drier.

We give herewith an engraving which shows the general style and method of operation of the Cassidy Drier, the invention of an experienced and well-known fruitman, J. W. Cassidy of Petaluma. Mr. Cassidy has given practical attention to fruit-driers for a number of years, and the style now being manufactured by the Petaluma Incubator Co. represents his latest experience in the way of improvements. The improvements to which he attaches most importance are the tubular heater, so constructed that there are 14 two-inch tubes which pass through the fire in the inside of the outside plates of the stove and throw a current of heated air much superior to that generated on the outside of the fire-box, and claimed to save

proper machinery to the top, where it is taken out at the upper door.

Those desiring full information concerning the drier should write to J. W. Cassidy or to the Petaluma Incubator Co. of Petaluma for their descriptive circular, which goes quite fully into details concerning the apparatus.

RABBIT REPELLENT.—The Wheatland Four Corners gives the following directions for the use of blood to prevent rabbits from gnawing trees: Procure a bucketful, or as much as is needed, of warm blood. Stir it incessantly until it cools, which will leave it free from clots, and by means of a brush or swab apply the blood to the sides of the tree. The presence of blood is very abhorrent to Bunny, consequently the tree, like the homes of the Israelites in



CASSIDY'S PETALUMA FRUIT DRIER.

from one-third to one-half of the fuel. Another improvement is the air distributor, seen in the cut, between the heater and the fruit. When in motion, the heated air is forced and equally distributed through the chamber. If the fruit placed on the trays is of a uniform thickness, same ripeness, and has the same amount of juice, it will dry evenly. Another improvement is the petroleum heater. It can be controlled as easily as a person can control a gas jet. The illustration shows how gas is manufactured from petroleum. On top of fire-box is a steam boiler. The steam from the boiler is conducted through a pipe to the door of the fire-box; there it connects with the petroleum pipe. The steam vaporizes the petroleum and forms gas which makes an intense heat, superior to any other known fuel. The heat that the boiler would contain in connection with the heater would be sufficient to keep up a strong heat through the night.

The engraving also shows the drying chamber with a portion of the shell broken away, and furnishes an explanation of its construction. The chamber is made of any desired height or diameter, to suit the operator. The fruit is admitted at the lower door and moved upward by

the Scripture, "will be passed over and saved from scourge." It is not necessary to cover the whole body of the tree, as the smell of the rabbit is very acute. A dab the size of a half-dollar will suffice.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or of some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

RUNNING TRAINS THROUGH A TREE.—The S. F. Post mentions a proposition so to change the roadbed of N. P. C. R. R. above Duncan's Mills as to run its track through a trunk of one of the large redwoods. Patrons along the road have petitioned the company to carry out the idea. It is proposed that the high stump of one of the giants be tunneled. Prof. John Knowlton and a number of the company's representatives went up the road recently and selected a tree 16 feet above the present level of the road, and 17 feet in diameter.

ENORMOUS FORTUNES.

Notwithstanding the enormous fortunes accumulated through the use of printers' ink, large sums of money are annually wasted in ineffectual and unremunerative advertising.

The merits of a really valuable commodity properly portrayed in the columns of an influential and widely-read newspaper, like the Pacific Rural Press, will speedily become generally known and appreciated, while the returns reaped by the advertiser will be like those of the wise husbandman who "planted seed in good ground, wherein it bore fruit and brought forth, some a hundred-fold, some sixty, some thirty."

The wording of an advertisement is an all-important matter.

Clearness, attractiveness, brevity and sincerity must characterize any announcement intended to catch the public eye and appeal to public confidence. An advertisement inserted in a London journal a few days ago brought instant and multitudinous replies accompanied by an almost unlimited supply of bank notes, simply because it touched the chord of nature which makes all mankind akin. Its simple pathos and self-evident truthfulness appealed to every heart.

The advertiser sought for a lost relative, and giving his name, said: "I am ill and 'friendless.' My last half-crown is expended in paying for this advertisement. Write me at"—(giving the address). As already stated, nearly every one who read the announcement hastened to relieve the necessities of the sufferer—a real sufferer in this case, though many swindles are perpetrated in the divine name of charity.

Thus it is with a really meritorious commodity or preparation; if its virtues be properly and truthfully set forth in the public press, its success is prompt and certain.

On the other hand, the public is quick and unerring to detect deception and charlatanism; and, accordingly, no amount of "puffery" will force a vile nostrum into public esteem and patronage. Untold sums have been sunk in vain efforts to advertise into popularity so-called medical preparations which did not possess the virtues or properties claimed for them.

Valuable medicines, however, like Warner's Safe Cure and Warner's Log Cabin Sarsaparilla, carry their own best commendation in their power to cure the particular diseases for which they are a specific.

They require no labored panegyric to convince the people of their power and efficacy, for they have been tried and found perfect.

Nature's remedies, by their own intrinsic merits, have conferred a lasting boon upon mankind, and they have secured an enviable reputation and unlimited sale throughout the civilized world.

Injurious Insects of the Orchard, Vineyard, Field, Garden, Conservatory, etc.,

Remedies for their Extermination.

By MATTHEW COOKE.

Late Chief Executive Horticultural Officer of California. Illustrated with over 750 wood-cuts and 26 pages of classified illustrations. This book is designed for the use of orchardists, vineyardists, farmers and others interested in the subjects treated. It is designed to convey practical information concerning some of the species of insects injurious to the industries of cultivators of the soil, and those interested in earth produce generally. Price \$4, postpaid. For sale by Dewar & Co., publishers, 220 Market St., San Francisco.

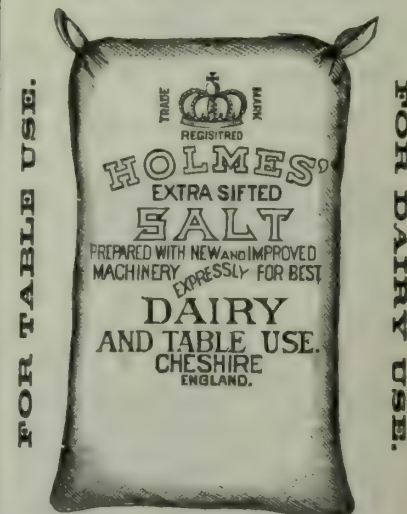
Wanted.

Pure and sound OLIVE OIL in bulk. State price and quantity. SUMNER, Box 2517, San Francisco.

Sorghum and Sugar Machinery.

We are in receipt of the Catalogue of The Blymyer Iron Works Co., manufacturers of the celebrated Victor, Niles and Great Western Cane Mills, Cook Evaporators, etc. Parties in want of Sorghum or Sugar Machinery will do well to write for a copy of the Catalogue.

ALWAYS USE THE BEST.



It is the Purest.
It is the Strongest.
It is Free from Lime and Pan Scales.
It contains No Insoluble Matter.
It requires No Sifting, as the Grain is very Uniform, and every Ounce can be Used.

Five pounds of HOLMES' Extra Sifted SALT is enough for 100 pounds of Butter. The quantity of Table Salt used in a family is small. Why Risk Health and Spoiling Butter by using ordinary Salt, when the extra cost of using Holmes' Extra Sifted Salt is so small? Ask your Grocer for it.

C. E. WHITNEY & CO.,
Pacific Coast Agents,
101 & 103 California St.,
San Francisco.

Educational.

BOWENS ACADEMY,

University Avenue, Berkeley, Cal.
PREPARATORY, COMMERCIAL and ACADEMIC CLASSES.

References to parents of pupils who have entered the University from this school. Send for circular.

T. S. BOWENS, B. A.,
Principal.

TRINITY SCHOOL,

1584 Mission Street, San Francisco.
Prepares Boys and Young Men

—FOR—

College, University and Business.
Christmas Term opens Wednesday, Aug. 1st.
REV. E. B. SPALDING, Rector.

The Santa Rosa Boys' School,

A HOME SCHOOL
FOR BOYS AND YOUNG MEN

Desiring thorough preparation for College, University or Business. Location healthful, grounds ample, rooms large, well lighted, warmed and ventilated. Influences, moral and social, of the very best. Number of pupils limited.

Winter Term will begin January 2, 1889.
Address the principal,
REV. SEWARD M. DODGE, B. A., Santa Rosa, Cal.

THE PIONEER COMMERCIAL SCHOOL

Established 1863. **PACIFIC Business College,**
320 POST ST. SAN FRANCISCO.
LIFE SCHOLARSHIPS, \$75.
No VACATIONS. DAY AND EVENING SESSIONS.
Ladies admitted into all Departments.
Address: T. A. ROBINSON, M. A., President.

Oldest and Best.

HEALD'S BUSINESS COLLEGE,

24 POST ST., S. F.

FOR SEVENTY-FIVE DOLLARS THIS College instructs in Shorthand, Type Writing, Book-keeping, Telegraphy, Penmanship, Drawing, all the English branches, and everything pertaining to business, for six full months. We have sixteen teachers, and give individual instruction to all our pupils. Our school has its graduates in every part of the State.

SEND FOR CIRCULAR.

E. P. HEALD, President.

C. S. HALEY, Secretary.

MEMORIAL, COMMENCEMENT, EXHIBITION, ANNIVERSARY,

And all FESTIVAL DAY Music can certainly be procured of *Ditson Company*. Send freely for Lists, Descriptions and advice.

Octavo Music.

We cannot too strongly recommend our Octavo Pieces, 6000 in number. All are most carefully selected, as containing the best Anthems, Glee, Choruses, Quartets and Sacred Selections. More expensive to publish than sheet music, we still sell them for the low price of 5 to 10 cents each.

School Teachers

will find numerous Concert and Exhibition Songs in our well-made School Song Collections, of which some of the newest are "United Voices," (50 cts., \$4.80 doz.) "Children's School Songs," (35c., \$3.60 doz.) "Kindergarten and Primary School Songs," (30c., \$3 doz.) and "Songs and Games for Little Ones," (\$2.00.)

Books for Social Singing

have many effective Songs and Choruses, as "College Songs," (50 cts.) "War Songs," (50 cts.) "Jubilee and Plantation Songs," (30 cts.) "American Male Choir," (\$1.) "Temperance Rallying Songs," (35 cts.) "Memorial Day Songs and Hymns," (25 cts.)

MAILED FOR RETAIL PRICE.

OLIVER DITSON CO., BOSTON.
C. H. DITSON & Co.
837 Broadway, New York.

J. F. HOUGHTON, President. CHAS. R. STORY, Sec'y.
J. L. N. SHEPARD, Vice-Pres. R. H. MAGILL, Gen. Agt.

HOME MUTUAL Insurance Company,
216 Sansome St., San Francisco.

Organized in 1864.
Losses Paid Since Organization \$2,841,045 00
Assets, January 1, 1889 843,163 70
Capital, Paid up in Gold 300,000 00
NET SURPLUS, over everything 287,531 34

FOR SALE CHEAP.

One 36-inch Gold Medal Separator—with Jackson's self feeder—in good running order. Also one Daniel Best's Grain Cleaner. Call on or address

H. P. MOHR,
Mt. Eden, Cal.

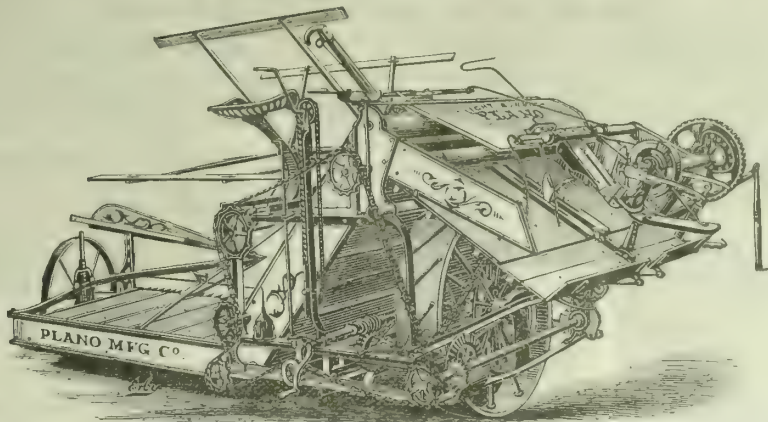
FOR SALE.

The threshing outfit of the late well-known thresher, Hugh C. Jones. The Separator is fitted with Jones' improvement. For particulars call or address

MRS. HATTIE S. JONES,
Box 18, Yuba City, Sutter Co.

P. P. MAST & CO.,

PACIFIC COAST AGENTS FOR THE

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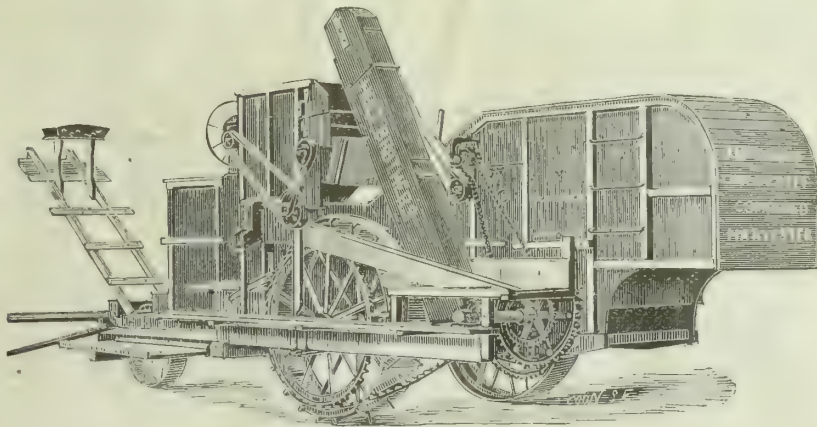
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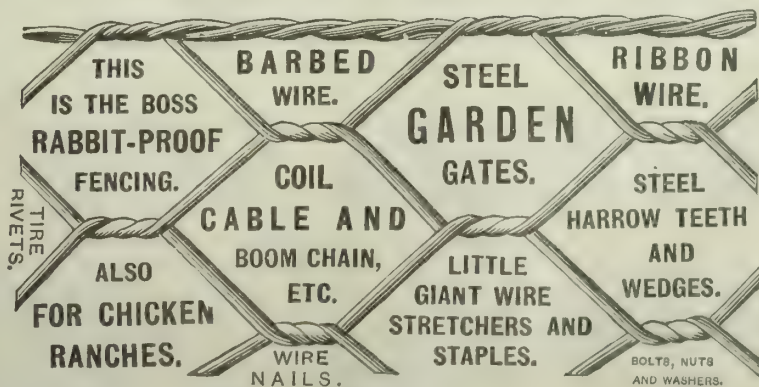
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Having a large stock to bud, will take orders to supply any kind of Apple, Pear, Peach, Apricot, Almond and Cherry, in dormant or June Buds or one year old trees.

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The undersigned offers for sale, on good terms, his **CONCRETE BLOCK FACTORY** of 300 acres, situated on Squirrel Creek, 2 miles west of Grays Valley. It is well watered by springs and has excellent irrigation facilities. commodious farm buildings, orchard of 150 trees and 6 acres of vineyard. A fine herd of Holstein, Ayrshire, Jersey, and Durham (thoroughbred and grade) cattle for sale with or without the ranch. Holstein and Ayrshire premium bulls on lowest terms, including "Tehama," which, on account of kinship to the herd, can no longer be used in breeding. A good dairy route is also included in this offer.

H. B. NICHOLS, Proprietor.

FOR \$5000.

A Ranch in El Dorado county, near Placerville, contains 100 acres, nearly all fenced in with a four-strand barbed wire fence, a good house of 11 rooms, hard finished, two brick chimneys, cut stone basement with cut stone steps, a good barn and stable, chicken house, work shop and other out-houses, a good well of water, one water ditch for the land, 1000 fruit trees, all in bearing, Peach, Apple, Fig and Cherries, 1000 Grapevines; 80 acres cleared and ready for the plow, all nearly level; about 25 acres woodland, pines, etc., all of which can be cleared; three cows and two calves. The Ranch is five miles from Coloma and nine miles from Placerville. The soil is a red loam, the house stands on the county road and the stage passes it twice every day. A span of horses, a new harness and wagon, plow, harrow and other farming utensils to be given with the Ranch. The Title, U. S. Patent. For further information address, "RANCH," Box 2361, San Francisco, or care of Illustrated Publishing Co., 220 Market St., S. F.

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The S. E. quarter of Sec. 13, T. 21, R. 23, and all of Sec. 15, T. 23, R. 24, in the artesian belt in Tulare county, will be rented at a nominal rent for winter sowing, if applied or soon. The greater part of this land is rich, level and all ready for the plow. Address L. E. Smith, Pixley, Tulare Co., Cal. or Ranch Owner, office RURAL PRESS San Francisco, Cal.

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Ranch of 200 acres on Coquille River, Coos County, Oregon; 40 acres bench land, 160 acres bottom, 80 acres under cultivation; 1 1/2 miles from Coquille City, one-half mile from steamer landing. An abundance of fine spring water on place. Price, \$4500 cash, or will exchange for California property in vicinity of San Francisco Bay. For further particulars apply to

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On account of the death of F. A. BRIGGS, Manager of the Pacific Coast Branch of the Amesbury (Mass.) Carriage Factory, the whole stock of fine light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for sale at less than cost, to settle the estate.

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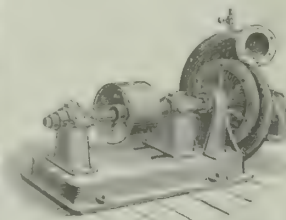
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DEWEY & CO., 220 Market street, San Francisco, Cal.

An Unusual Incident.

Last Tuesday our office was visited by George Elisha Church, late of Dayton, Washington Territory, but now a resident of Oakland. He claims he has been under spirit control since '62, when, attempting to speak in a Methodist church at Elgin, Ill., the "spirit" rebuked two members who had quarreled at the noonday class-meeting. For three years the Press had been sent to him in Washington Territory, but he had a wife and six children and found it hard to keep the wolf from the door. He claimed that the "voice" told him that morning to get on the boat, come here and pay the bill. He is a "Bible Spiritualist" like Mrs. Eddy Glover, and contends that everything in the Bible is true but written under the same sort of influence as that which controls him. He had the misfortune to be sent to the asylum for the insane at Steilacoom, Washington Territory, by two doctors, but as three others pronounced him sane he was discharged in four days. "By their fruits ye shall know them." If more delinquent subscribers were as effectually under control as Mr. Church, it would make us appreciate the silent regulators of men. What makes this case more remarkable is the fact that the bill had been owing so long, as it ran back to 1866.

Thanks to Mr. Church; also to those who have paid up old bills through the honesty of their hearts and the good sensations and lingering satisfaction of paying an honest debt. We want to thank many more soon (under the control of spirits, honest impulse of their better natures, fear of the opinions of honest neighbors, the law, or any other good influence) for paying up long-delinquent bills.

Petaluma and Vicinity.

[Written for the Rural Press by J. C. H.]

A Rural reporter made a flying trip to Petaluma one day last week. There is quite a stir and local interest taken in the proposed railroad from Petaluma to Sebastopol and the redwoods on Russian River. Resident capitalists in this section have paid in \$10,000, it being ten per cent of amount subscribed, and one of the several surveys adopted.

The Petaluma race-track has been re-covered with coating of earth and put in first class condition at a cost of over \$1000. It is the opinion of expert horsemen that it is now equal to any, if not the best, race-track in the State. President White, Directors Crane, Page, Whitney and several leading citizens, inspected the race-track and feel well satisfied with the work and improvements made. It is anticipated that the coming district fair will be one of the best ever held.

The Petaluma Incubator Co. had a large force of skilled workmen employed in manufacturing incubators and the Cassidy fruit-drier.

W. H. Worth, proprietor of the Petaluma foundry, has blocked out 40 of Worth's patent combined toggle lever and screw wine and cider presses, as also a number of Worth's grape elevators and Worth's Improved grape-stemmers and crushers to meet the demand for this season, a large number of orders for which are already in.

The agricultural dealers report a good demand for farm machinery, and this section seems to be in a highly prosperous condition.

New Books.

YOSEMITE AND OTHER POEMS.—We have received from the authoress, Jean Bruce Washburn, a volume of verse entitled "Yosemite and other poems." The home of the authoress is at the Wawona hotel, Clarks, on the way to the far-famed valley, and, living among such grand surroundings, she seems to have become imbued with the beauty, spirit and traditions of the mountains.

THE STORY OF LAULI, A DAUGHTER OF SAMOA. We duly acknowledge the receipt of a complimentary copy of "The Story of Lauli, a Daughter of Samoa," written by herself and edited by Wm. H. Barnes. The story makes a handsome volume, "giving the life, manners and customs of the islanders, peculiarities of the race, games, amusements, incidents of many kinds, and matters of interest in connection with the Samoan people." The interest attached to these islands by reason of the events which lately transpired there, make this a timely publication, furnishing information which everybody wants to know. For sale by subscription. A. A. Willis, husband of Lauli, No. 320 Pine street, S. F., is the publisher. Winterburn & Co., S. F., the printers, have made a creditable appearing volume for public favor.

THE Mount Shasta District Society will hold a fair in Yreka, commencing Oct. 2d and continuing four days.

THE STABLE.

The P. C. T. H. B. Association.

Wilfred Page of Penn's Grove, Sonoma county, secretary of the Pacific Coast Trotting-Horse Breeders' Association, has issued the following circular:

At the meeting held April 19, 1889, the following Board of Directors was elected:

J. H. White, P. O., Lakeville, Cal., president; N. T. Smith, San Francisco, treasurer. Directors—W. S. Hobart, San Francisco; R. T. Carroll, San Francisco; L. J. Rose, Los Angeles; L. U. Shippee, Stockton; M. Salisbury, Pleasanton; H. M. Larue, Sacramento; F. L. Coombs, Napa; D. J. Murphy, San Jose; L. H. McIntosh, Chico.

As soon as the breeders, owners, etc., from other States or Territories on the Pacific Coast join the association, they will be given representation on the board. The membership fee has been fixed at \$25; the annual dues at \$5.

The Board of Directors have been authorized to hold a meeting at such time and place as they may select during the fall, and to give such stallion and colt stakes and purses as they may deem expedient.

It has also been authorized to grant any member who may donate the sum of \$300 or over, toward making up said purses or stakes, the privilege of naming one of the same, provided, that the name selected meet with the approval of the said board.

No horses or colts bred or owned on the Pacific Coast shall be eligible to stakes or purses given by the association, unless the owners thereof be members of the P. C. T. H. B. A.

Colts bred and owned outside of the limits named shall be eligible thereto without the requirement of membership on the part of their owners.

The Pacific Coast shall be interpreted to include all such States and Territories as lie in whole, or in part, west of the Rocky Mountains.

You are earnestly invited to become a member of the association, and thereby to further the interests of all trotting-horse breeders and owners, and of the trotting turf of this coast.

It is not necessary, in order to be entitled to membership, that the applicant be a breeder or owner; admirers and lovers of the trotting horse, and patrons of the trotting turf who are desirous of its encouragement, perpetuation and elevation, will be made welcome to membership in the P. C. T. H. B. A. The membership fee, \$25, is now due and should be remitted to the secretary, either by draft, payable at San Francisco, or by postoffice or Wells-Fargo money order, payable at Petaluma, Cal.

Other Floral Fairs.

A pleasant epidemic of flower festivals has prevailed these three weeks here in the Golden State. Besides the one at Los Angeles, so faithfully depicted by an eye-witness in our last issue, the San Diego ladies made a like display for five successive April nights, clearing about \$1100 for three sister charities—the Woman's Industrial Home, the Woman's Exchange and the Day Nursery. Floral fairs more or less elaborate have busied benevolent hands and delighted appreciative eyes and nostrils in San Jacinto, San Bernardino, Ontario, Pomona, Santa Ana, Sacramento, Dixon, St. Helena, Santa Rosa, Healdsburg, Ukiah, Oakland and Alameda. The ladies of the Horticultural Hall Association at San Jose are doubtless opening theirs as we go to press Wednesday evening. The S. F. Woman's Exchange has already held one here this season, and we elsewhere give a somewhat extended announcement of what the State Floral Society has in store for the coming week.

CARP AND CATFISH.—The Dixon Tribune doubts if the Fish Commissioners have benefited California. "They introduced the catfish, which have multiplied so fast and are so voracious that they have driven many other kinds of the best food fish out of the waters of the State. They also introduced carp, a species of fish that are a network of bones and as tasteless and unpalatable as sawdust, and these fish have multiplied until now the Sacramento, its tributaries and the adjacent marshes are literally alive with them."

THE HATCH-ARMSTRONG FRUIT & NUT CO. has filed articles of incorporation. Its objects are to purchase real estate, to produce, sell and export fruits, nuts, vines, trees, grain and other productions of the soil, and to produce and deal in wines and brandies. The corporation is to exist for 50 years. Capital, \$320,000, divided into 3200 shares worth \$100 each. The amount actually subscribed is five shares, one each by the following trustees: A. T. Hatch of Solano county, Herman Zadig, Frank Dalton and Frank McMullen of this city, and Elbert Armstrong of Hamilton, Ohio.

POOR SHADE TREES.—The Bakersfield Californian thinks a great mistake is made in planting such trees as the willow, cottonwood and poplar. They are cheap and grow rapidly, but there their good qualities end. They are infested by obnoxious insects which are destructive to the fruit trees and vineyards. Their roots are enormous feeders and stretch out in all possible directions to the detriment of all plant-life in their vicinity.

QUERIES AND REPLIES.

Green Whitewash.

EDITORS PRESS:—Please ask your numerous readers if they know of any receipt for making a lime-wash (whitewash) with a pale green tint. I have often seen barns and other out-buildings washed in this manner. It is much better than the common whitewash for our hot, sunny climate, because it is not so glistening and trying to the eyes.

Lime washes are wonderful preservers of wood-work, have a clean look and are much more healthy for stock than bare boards, and ought to be more generally adopted than they are. From a sanitary point of view, lime is infinitely superior to paint.—T. H. BURGOYNE, Cummings, Mendocino Co., Filberts.

EDITORS PRESS:—In a recent issue of your valuable paper I saw some inquiry regarding the planting and germination of filberts. Upon this subject I have nothing further to add. But I would strongly advise your correspondent who is about to go into nut culture to obtain the filbert known as "The Kent Cob Nut." It is a much larger nut than the ordinary English filbert and very superior in point of quality. It is in fact the very finest variety of filbert known, and in England brings from 20 to 30 per cent more per pound in the open market than any other. The usual retail price of this nut there is from 20 to 30 cents per pound, viz.: 1 rod. to 1s. 3d. —T. H. BURGOYNE, Cummings.

The variety mentioned was introduced some time ago by Leonard Cates of Napa, and Felix Gillet of Nevada City has introduced the best kinds from the continent of Europe.

Alfalfa on Upland.

EDITORS PRESS:—I would like to ask those of your subscribers who have grown alfalfa on hill or upland to please give their experience through the Press as to the profitability of the same. And does the plant need as much water as some suppose?—L. B. CADWELL, Carpinteria.

SERPENTS' FANGS.—The "sting" of snakes is neither in the tail nor the tongue. The death-dealing organs are the great poison-fangs. The fatal wound is a bite and not a sting. And among all the special modifications of snake-structure, none is more remarkable than the development of the poison-fang. In the harmless snakes there is a longish bone on each side of the upper jaw, which may be armed with a dozen teeth or more. But in the vipers this bone is shortened to a wedge, which bears only one great fang, though behind it there may be two or three reserve fangs, one of which will rapidly become attached to the bone should the poison tooth in use be broken. In all snakes the jawbones are but loosely attached to the brain case. But in the vipers this fang-bearing bone is so hinged to its neighbor's that, when the creature is not roused, the poison tooth can be laid back in the mouth and protected by a fold of skin. Should the creature, however, be enraged, and the mouth be opened widely, its poison-fangs may be separately or simultaneously erected so as to stand out at right angles to the jaw. In the less-developed venomous snakes the curved fang is grooved along its anterior margin; but in the cobras the groove has sunk so deep into the fang that it only opens by a narrow slit, while in the vipers and the ring-hals even this slit has closed and there is a complete canal running from the base of the tooth to a slit-like orifice near but not quite at the point. Into this canal at its lower end opens the duct of the poison gland, a deadly modification of a harmless salivary gland. In a fair-sized puff adder I dissected, this was about as large as a bean. About half a dram of clear, gummy poison may be collected from a fresh and vigorous cobra.—Murray's Magazine.

QUEER ORIGIN OF A FIRE.—Mr. J. T. Walker of Ignacio valley lately lost his best barn (worth, with the feed it held, about \$1000) in a singular way. It appears he had a smokeroom in the structure. A piece of meat directly above the fire with which the smoking was being done fell into it. The fire flared up and ignited the other meat hanging from the ceiling, the barn was soon in flames, and it took hard work to save the adjacent buildings.

A RARE RETURN FROM POULTRY.—The Gridley Herald tells how a citizen of that place lately bought a chicken, which his wife began to prepare for their dinner. While dressing it she found what she supposed to be a piece of glass in its craw. Her husband thought otherwise and sent the crystal to San Francisco. It proved to be a first-water diamond, and one of the leading jewelers of the Bay City purchased it for \$185.

SORGHUM EXPERIMENTS.—Chemist Wiley of the Agricultural Department left Washington the 5th inst. to select sites for experiments in growing and manufacturing sorghum. He expects to establish stations at Rio Grande, New Jersey; Kenner, La.; Cedar Falls, Iowa; and at Sterling and other points in Kansas. Last week he established a station in Maryland, on the grounds of the Maryland Agricultural College. He is sanguine of successful results.

THE GREAT CHANCE to buy work horses, draft colts and fillies, thoroughbred Angus and Holstein cattle, farm machinery, etc., afforded by F. H. Burke's auction sale on the 18th, should not be neglected. Further particulars may be learned from the advertisement on another page.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING APRIL 23, 1889.

- 401,926.—PIPE WRENCH—L. J. Bergendahl, Pendleton, Or.
401,876.—SAWMILL SET WORKS—Wm. A. Campbell, Portland, Or.
401,878.—ROTARY PULVERIZER—M. B. Dodge, S. F.
401,937.—GANG PLOW—E. H. Farmer, Gilroy, Cal.
401,838.—PREPARING SULPHATE OF SILVER—F. Gutzkow, S. F.
401,884.—ROLLER BEARING—R. W. Hent, S. F.
401,893.—BOX FASTENER—J. L. Lilienthal, S. F.
401,845.—STEP FOR VEHICLES—Mattie M. Marsh, Moscow, I. T.
401,895.—CABLE GRIP—S. F. McDill, S. F.
401,954.—ORE-GROUNDING MILL—Jos. McKenzie, El Dorado, Cal.
401,968.—MACHINE FOR DRIVING MANDRELS, ETC.—J. Richards, S. F.
401,976.—PLUGS FOR SINKS, ETC.—W. B. Smith, S. F.
402,045.—SWAGING DEVICE—Jos. Taylor, Shingle Springs, Cal.
401,867.—WINDMILL—Geo. P. Thurston, S. F.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

THE CALIFORNIA CANNED GOODS ASSOCIATION has instructed its committee, appointed April 27th, to ask the Transcontinental Association to grant the California fruit-packers the following rates: 80 cents to the Missouri river and tributary points, 90 cents to Chicago and \$1 to New York. The committee has selected J. K. Armsby of Chicago to represent the fruit interests of this State at the Transcontinental Association's meeting.

CATTLE FROM COOK FARM AT AUCTION.—The executor's sale of Galloway, Polled Angus, Devon, and other cattle, advertised by Killip & Co. to take place at the Bay District track next Thursday, bids fair to attract a throng of intelligent breeders who will desire to improve such an opportunity.

A PERMANENT exposition of the products of Southern California in Los Angeles has been fully decided upon, and a building will probably be erected for the purpose.

BAD eggs used at an egg-nog party at Philadelphia caused the death of one lady and violent illness of eight other people.

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To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, to those who pay fully one year in advance of date, if requested the following articles (while this notice continues), at the very greatly reduced figures named at the right:

- 1.—The Agricultural Features of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price \$1). \$0.25
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Entries will close April 1st. Only pedigreed stock will be received. Apply to

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The sale will comprise imported Bulls and Cows and their produce. This is the most superior lot of cattle yet offered for sale in California, and should command the attention of breeders throughout the Coast.

Catalogues will be ready Saturday, April 13th.

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SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with records better than 2:30, and the dams of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:26; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp. Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbridge, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 405, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medos (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Ryadyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Stamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:03, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, 6th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:20), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

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Sired by Luck's All (189).

First dam by Sportsman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

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No. 68, Vol. 1, A. C. B. S. B.
Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" class, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire, beating 20 others.

First dam Whalebone (355), first premium Gt. York-shire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16½ hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 248; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teesdale, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

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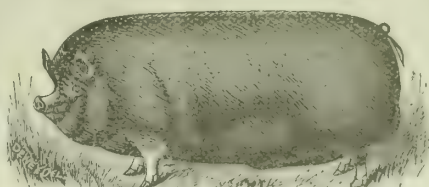
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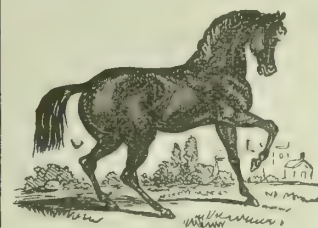
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Have taken the First Premiums at the State Fair for the last three years.

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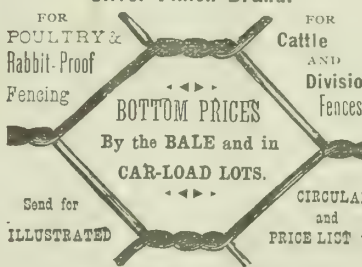
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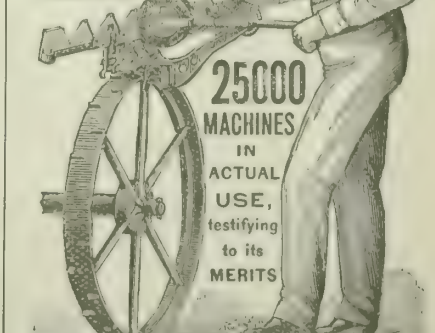
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S. H. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 8, 1888.

General trade in country produce was interrupted by rains, but at the close it is improving under clearer skies and a promise of fair weather. The rains have been of inestimable benefit to all growing crops, but, as usual, some injury in a few sections was done. The wheat market at the East and abroad has eased off under good crop weather and heavy offerings. The following is to-day's cablegram:

LIVERPOOL, May 8.—Wheat—Firmly held. California spot lots, 6s 9½d to 7s 1½d; off coast, 34s 6d to 34s 9d; just shipped, 34s 6d; nearly due, 34s 9d; cargoes off coast, quiet but steady; on passage, quiet; Mark Lane wheat, quiet; French country markets, steady; wheat in Paris, quiet; flour, steady.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	May.	June.	July.	Aug.	Sept.	Oct.
Thursday.....	78½d	78½d	78½d	78½d	78½d	78½d
Friday.....	78½d	78½d	78½d	78½d	78½d	78½d
Saturday.....	78½d	78½d	78½d	78½d	78½d	78½d
Sunday.....	78½d	78½d	78½d	78½d	78½d	78½d
Tuesday.....	78½d	78½d	78½d	78½d	78½d	78½d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	35-6d	35-6d	35-6d	Dearest.
Friday.....	35-6d	35-6d	35-6d	Dearest.
Saturday.....	35-6d	35-6d	35-6d	Dearest.
Sunday.....	35-6d	35-6d	35-6d	Dearest.
Tuesday.....	35-6d	35-6d	35-6d	Dearest.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	May.	June.	July.	Aug.
Thursday.....	82½	82½	82½	82½
Friday.....	82½	82½	82½	82½
Saturday.....	82½	82½	82½	82½
Sunday.....	82½	82½	82½	82½
Tuesday.....	82½	82½	82½	82½

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	May.	June.	July.	Aug.
Thursday.....	78½	78½	78½	78½
Friday.....	78½	78½	78½	78½
Saturday.....	78½	78½	78½	78½
Sunday.....	78½	78½	78½	78½
Tuesday.....	78½	78½	78½	78½

NEW YORK, May 8.—Wheat—84½c for cash, 84½c for May, 84½c for June, 85½c for July and 85½c for August.

CHICAGO, May 8.—Wheat—84c for cash, 84c for May, 84½c for June and 85½c for July.

Foreign Grain Review.

LONDON, May 6.—The *Mark Lane Express*, in its weekly review of the British grain trade, says: English wheat is steady. Foreign wheat is stronger. Russian has advanced 6d. Flour is firmer under lessened stocks at London and Liverpool. The prices of barley and oats are maintained. Corn is weaker. At to-day's market there was a slack demand for wheat. English was 6d lower. Foreign was rather weaker. Fair Californian and fine Russian were steady.

Eastern Wool Markets.

NEW YORK, May 5.—The short week developed trade enough in wool to indicate the tone of quotations. Business is quiet. Manufacturers will not purchase freely between clips, especially when holders offer no tempting inducement. Here and eastward the market sounds stronger than last week, as very full prices are named for all desirable lines, probably with deference to some support reported obtained by interior dealers locally. Sales of 10,000 lbs. scoured, 3000 X California, 59c; 15,000 fine de-laine, 35½c; half-blood, 36½c; 20,000 double X, 34½c; 15,000 fine unwashed, 21c; 5000 Territory, 21c; 9000 domestic, 12½c foreign and 143 bags ditto on private terms. Philadelphia reports a featureless market, including 66,000 lbs. California spring at 12½c. Boston's sales were 2,187,000 lbs. domestic and foreign, about one-half of the latter.

Miscellaneous.

NEW YORK, May 5.—Hides are neglected, but unchanged.

Limas are firm at 33.15. Large prunes are in good demand; small are low, as they compete with cheap Turkish. The range is 5½c to 11c.

The best grades of raisins are active at \$2.10; 3-crown layers, \$2.40. No demand whatever for common.

Hops are without large business, but maintain very full prices. Best new State, 22@23c; good to prime, 19@21c; common to fair, 15@18c; best new Pacific, 20@21c; prime, 18c; common to fair, 13@15c; all olds, 3@10c. The exports of the season to date are 54,000.

Local Markets.

	S. S.	R. S.	B. S.	'89.	'88.	Dec.
Thursday.....	111	111	111	111	111	111
Friday.....	111	111	111	111	111	111
Saturday.....	111	111	111	111	111	111
Sunday.....	111	111	111	111	111	111
Tuesday.....	111	111	111	111	111	111

	Buyer Season.	Seller 1888.	Buyer 1889.
Thursday.....	60½	60½	60½
Friday.....	60½	60½	60½
Saturday.....	60½	60½	60½
Sunday.....	60½	60½	60½
Tuesday.....	60½	60½	60½

BAGS—The market for Calcuttas shows a stronger tone at 7½c for spot, 8 to 8½c for June, and

8½ to 8¾ for July. Some holders ask more money than the above quotations.

BARLEY—The market gained in strength under a report of damage to the crops, but heavy receipts soon broke values, closing the market weak and in buyers' favor. On Call, more trading was done in futures. The following are the reported sales made to-day:

Morning Session: Buyer 1889—1000 tons, 80½c; 800, 80½c. Buyer season—100 tons, 64½c. Seller 1889, new—100 tons, 72½c cwt. Afternoon Session: Buyer 1889—300 tons, 80½c; 100, 80½c. Buyer season—500 tons, 64½c cwt.

BUTTER—Receipts the past week were heavy, yet the market stood up well, even gaining a fraction for gilt-edged. Considerable is going into brine, more than was packed last season. The outlook is not favorable for an immediate improvement in values, owing to the close competition of Eastern creameries for trade that naturally belongs to this city.

CHEESE—Heavy receipts have caused another decline in prices, with a weak tone at the close.

EGGS—The market is stronger, owing to smaller receipts and a continued good demand. With better roads, farmers' deliveries are expected to be larger, when a shading in values is not at all unlikely to set in.

FLOUR—Trade is very dull. The market is unchanged.

WHEAT—The rains interfered with trading, and at the close lower cablegrams cause buyers to bid down. Offerings are very light, which cause exporters not to bid for their wants for fear of raising values. In futures, trading the past week was quiet, with a general bearish feeling reported. The following are the reported sales made on to-day's Call:

Morning Session: Buyer 1889—900 tons, \$1.36½; 600, \$1.36½. Buyer season—100 tons, \$1.33½; 400, \$1.33½ cwt. Afternoon Session: Buyer 1889—500 tons, \$1.36½; 600, \$1.36½; 200, \$1.36½. Buyer 1889, after August 1st—100 tons, \$1.33½; 1300, \$1.33; 1700, \$1.33½ cwt.

Market Information.

Produce Receipts.

Receipts of produce at this port the past week were as follows:

Flour, qr. sks....	59,266	Middlings, sks....	7,268
Wheat, cts....	267,621	Alfalfa, ".....	"
Barley, ".....	39,027	Chicory, ".....	"
Rye, ".....	722	Broomcorn, bds....	"
Oats, ".....	11,226	Hops, bls....	"
Corn, ".....	12,041	Wool, ".....	5,302
Butter, ".....	1,000	Hay, tons....	1,449
do bxs.....	867	Straw, ".....	56
Cheese, cts....	1,250	Wine, gals....	281,870
do bxs.....	171	Brandy, ".....	900
Eggs, doz....	127,400	Raisins, bxs....	1,700
Beans, cts....	3,801	Honey, cs.....	66
Potatoes, sks....	34,374	Walnuts, sks....	5
Onions, ".....	2,145	Flaxseed, sks....	4
Bran, sks....	10,590	Mustard, sks....	56
Buckwheat, sks....	400		

Cereals.

The London *Agricultural Gazette*, April 22, says: Official reports of the wheat crop in India dated Calcutta, March 22d, are to hand, and the following note appended: "Summarizing very briefly the abstracts above recorded, it may be noted that in the Punjab, northwestern Provinces and Oudh, Bengal, Rajputana, and Central India the extent and quality of the wheat harvest will be quite up to the ordinary standard, and are especially good in the northern portion of the region covered by these Provinces and States. In the Central Provinces, Bombay and Berar, there will be a decided deficit. The condition of other food crops than wheat is sufficiently favorable to lead to an anticipation that no such abnormal demand will be made upon wheat as to interfere with the export trade. A telegram from Melbourne, dated Tuesday, is to the effect that the drought in the colony of Victoria had completely broken up. It is estimated that the colony of New South Wales will require to import 750,000 qrs. of wheat. An advice from Buenos Ayres, dated March 1st, stated that the continued wet weather had prevented any wheat being brought from the west-side for export, to that date. Navigation at Stockholm opened on Monday last. The wheat crops are favorably spoken of in France, Belgium, Holland, Germany and Southern Russia, excepting in the valley of the Don. Favorable weather for spring seeding has also been common over Europe, although the season has been a late one."

The wheat market, the past week, was fairly active up to Monday, when the rains of Saturday, Sunday, and Monday caused both buyers and sellers to hesitate. The general feeling was bearish under unfavorable market reports from the East, and also from abroad, combined with the security felt that the rains would prove of inestimable advantage to all late sown grain, which constitutes the large majority of the acreage seeded to wheat. This, of necessity, refers to the acreage of the State at large and to no one particular locality, for in two counties the early sown and the late sown are about evenly divided. There can be no doubt but many fields of grain wherein the plant had grown rank have been thrown down, which, with a continuance of rain for a few days, will rot or be so injured as to preclude the possibility of cutting for either grain or hay, but the plant on thin soil, or where late sown, will, if the rain is followed by cool weather, turn out a larger yield to the acre than since 1880.

Barley held to steady prices up to Monday, when a slight advance was established. The hardening in prices was due to reports that many fields of the grain had been thrown down, which, owing to its advanced state, farmers will be unable to save. Had it not been for the rains, harvesting would have been commenced on last Monday in the more favored sections.

Heavy receipts of corn have weakened the market for that cereal, making it quite difficult to give correct quotations. The market is governed by the necessities of both buyers and sellers.

Continued heavy receipts have weakened oats, causing some sellers to shade prices so as to place consignments. Crop advices are favorable in this State and Oregon and on Puget sound.

In rye there is nothing new to report. We are drawing our supplies of buckwheat from

the East, owing to last year's crop being exhausted. A leading miller in this city reports that the flour made by him from wheat received from the Willamette valley, Oregon, was poor, and would not raise in baking, consequently Oregon wheat is in disfavor. He attributes the loss of power to raise in baking to the grain having commenced to germinate, but not to such an extent as to be detected by the naked eye.

Mr. Harkinson of Oakland returned yesterday (Tuesday) from Solano, and reports that the summer-fallow grain was down when he left, but the winter grain was O. K. He says that farmers state that if the plant in falling did not crack, it will rise with sunny weather, but where cracked it will remain down. Blum, Baldwin & Girvan of this city report to-day that their advices are to the effect that the fallen grain is rising, and no damage of any consequence is looked for, while great benefit has been done the winter or late sown by the rains.

Fruit.

Rains the past week have been of the greatest benefit to growing fruit crops. Strawberries ripening were injured, but the vines have been greatly benefited, and will in consequence give larger returns than if rain had not fallen. Matured cherries will probably be injured, but growing cherries will be benefited, particularly the varieties used for canning. The same remarks apply to apricots.

Purple apricots were received the past week, and sold at 50 cts. per pound. A shipment was also made to the East.

Oranges continue in free supply. Choice, well-selected good-keepers are readily placed, but poor-keepers and otherwise poor oranges have to be sold for the best figures obtainable. Rains two or three days the past week were against hucksters buying, and many poor oranges had to be sacrificed. In limes and lemons there is nothing of particular interest to report.

Dried fruits are without essential change. The only movement worthy of notice is prunes ranging from 75 up. Selling offers of a month ago are not only bid now but in some instances an advance of fully ½ cent a pound was bid for a carload. They are hard to get.

Raisins are quiet but firmly held, particularly for the more choice, which are in light stock.

At to-day's (Wednesday's) fruit market there was a good shipping demand, which caused the more choice, good-keeping cherries, berries and citrus fruits to strengthen. Choice Navel oranges are very strong under a scarcity.

Feedstuff.

In ground feed there is nothing of special interest to note. The consumption continues light, which is offset, to a great extent, by the lessened production.

Cutting of hay was beginning to be quite general up to Saturday, but the rains have temporarily suspended the work. Reports are current of damage to the hay already cut, which the writer's experience thinks are unduly exaggerated. Unless rains continue for a few days, followed by cloudy weather, the injury to the cut hay will be irreparable, but with clearing weather and sunshine from now on, the greatest injury will be in the color; but this can be brought out by a judicious use of salt in stacking. It is difficult to quote the market correctly, but values will depend very much on later and more reliable crop reports. At this writing both buyers and sellers appear offish.

Live-Stock.

The market for bullocks and mutton sheep does not appear to improve, owing to continued few offers. The rains the past week assure a continuance of natural pasturage which will undoubtedly keep sellers from pressing the market as much as they would with the prospect of seeking new pasturage or else feeding, at an early day. Lambs and calves are unchanged. Hogs are weak, under only a fair demand. Packers claim that prices will rule lower next winter. In horses the movements are slow for all kinds, and reliable quotations hard to give.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, grain fed, 5½@6c lb.; dressed, 8½@9c lb.; soft, 5½@6c lb.; dressed, 8½@9c lb. Stock hogs, 5½@6c lb.

BEEF—Stall fed, 6½@7c lb.; grass fed, extra 6½@7c lb.; first quality, 5½@6c lb.; second quality 4½@5c lb.; third quality, 4½@5c lb.; bulls and thin cows, 2½@3c lb.

VEAL—Small, 7½@8c lb.; large, 6½@7c lb.

MUTTON—Wethers, 5½@6c lb.; ewes, 4½@5c lb.; lambs, spring, 6½@8c lb.

Vegetables.

The receipt of seasonal vegetables was interrupted to some extent by rains the past week, but sufficient were received to keep the market fairly well supplied. The present weather could not have been ordered more advantageously for growing garden truck.

Asparagus, peas, string beans, green corn, cucumbers, and tomatoes were without essential change the past week. Prices were controlled by the daily receipts. It is claimed that with more settled weather and better roads, heavier receipts of seasonal vegetables will be in order.

Receipts of new potatoes the past week were only fair, yet prices did not recover any, probably owing to the low range of values for old. The receipts of the latter were very large, Oregon sending us heavy supplies, much larger than before known at this season of the year.

In root vegetables and cabbages there is nothing new to report.

The receipts of onions the past week were heavy, causing a weaker market.

Wool.

Receipts are heavy and assortments more complete, but it is stated that the rains have interrupted shearing. Shipments the past week via Canadian Pacific Railroad were as follows: 125,214 lbs to New York, 252,713 lbs to Boston, 89,097 lbs to Webster, Mass. To New York via Panama, 32,064 lbs.

The market shows more activity with a slight advance, in two or three instances, paid over the prices of the preceding week for the same grade of wools. Free buying is reported in the interior. Our mail advices from England report a very active and higher market. Referring to the situation, the London *Agricultural Gazette*, April

22, says: The causes for the present high prices both for English as well as Colonial wools, are no far to seek. Since the commencement of the present year trade in every direction has been carried on on a more satisfactory basis, and as usually happen when the iron and coal trades are active, similar animation characterizes the wool and woolen trade. During the past two months the woolen and worsted manufacturers in Yorkshire have undoubtedly been very busy. Full time has had to be worked in most of the factories in order to meet the orders which have poured in upon them from home and Continental buyers, and it is worthy of notice that during the period named there has been but little or no talk indulged in, nor any expression of lament of working at "unremunerative prices."

Miscellaneous.

Poultry has ruled firm throughout the week, under moderate receipts and a good demand.

Beans appear to have a steadier feeling, under lessened receipts. Crop prospects are of the best.

In seeds, there is nothing new to report.

Hops continue strong, under steadily lessening supplies to draw from.

In honey and beeswax there is nothing new to report. New crop honey was received the past week.

The British ship *Dunfellon* cleared yesterday for Liverpool, with a full cargo of California produce, among which were the following: 35,976 gals. brandy, 25,257 lbs. honey, 6437 cases canned fruits, 100 gals. wine. To Ireland, 63 gals. of wine were sent, and 6062 gallons to Switzerland. There was shipped to New York via Panama the past week 25,727 gallons of wine and 485 gals. of brandy.

From the *Commercial News* of May 8, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	205,403	267,712
On the way to neighboring ports.....	33,744	132,853
In port, disengaged.....	16,296	38,165
In port, engaged for wheat.....	36,474	12,271

Totals.....291,917 451,007

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to May 7, the following are the exports from this port:

	1889.	1888.
Wheat, cts....	11,450,666	8,034,257
Flour, bbls....	668,602	678,466
Barley, cts....	1,261,534	645,134

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

BEANS AND PEAS. Old good to choice 1 50 @ 2 00. Butter..... 2 50 @ 2 80. New..... 1 50 @ 1 80. Red..... 2 30 @ 2 50. Pink..... 2 20 @ 2 40. Large White..... 2 00 @ 2 20. Small White..... 1 50 @ 1 80. Lima..... 1 25 @ 1 50. Fld Peas, Mkiye..... 1 00 @ 1 20. do green..... 1 00 @ 1 20. do NL..... 1 00 @ 1 20. BROOM CORN. Southern..... 75 @ 80. Northern..... 65 @ 70. CHICORY. California..... 7 @ 7. To make..... 7 @ 7. DAIRY PRODUCE, ETC. BUTTER. Cal. Poor to fair..... 10 @ 11. do good to choice..... 14 @ 16. do Fancy brands..... 17 @ 18. do pickled..... 18 @ 20. Eastern in tubs..... 11 @ 14. do in rolls..... 11 @ 14. CHEESE. Cal. new, choice..... 8 @ 9. do old..... 6 1/2 @ 7. do fair to good..... 6 @ 7. new..... 7 1/2 @ 8. EGGS. Cal. ranch, doz..... 20 @ 21. do store..... 17 @ 19. Eastern, lined..... 17 @ 19. Eastern, fresh..... 11 @ 16. FEED. Bran, ton..... 12 @ 13. Feed meal..... 24 @ 26. Grl. Barley..... 16 @ 17. Middlings..... 14 @ 16. Old Oake Meal..... 30 @ 32. Manhattan Feed..... Per 100 lbs..... 7 50 @ 8 00. HAY. Compressed..... 7 00 @ 11 50. Wheat, ton..... 7 00 @ 12 50. Wheat and Oats..... 7 00 @ 11 50. Wild Oats..... 8 00 @ 10 50. Clover..... 5 @ 6. Unimproved Oats..... 7 00 @ 10 00. Barley..... 6 50 @ 9 00. Barley and Oats..... 6 50 @ 9 00. Alfalfa..... 6 00 @ 8 25. Clover, Red..... 6 00 @ 8 25. Sweet V. Grass..... 7 00 @ 8 50. Cotton..... 20 @ 22. Straw bale..... 65 @ 80. FLOUR. Extra, City Mills..... 4 35 @ 4 70. do City Mills..... 4 00 @ 4 45. Superfine..... 2 75 @ 3 25. WHEAT, ETC. Barley, feed, cts.... 65 @ 70. do Brewing..... 77 @ 80. do do Choice..... 85 @ 95. Chevalier once..... 95 @ 100. do com to good..... 3 00 @ 3 25. Buckwheat..... 1 00 @ 1 12. Yellow..... 1 07 1/2 @ 1 15. Oats, milling..... 1 05 @ 1 17 1/2. Choice feed..... 1 02 1/2 @ 1 05. do good..... 95 @ 1 00. do fair..... 90 @ 95. do Gray..... 1 35 @ 1 45. Wheat, milling..... Gilt edged..... 1 40 @ 1 45. do Choice..... 1 37 1/2 @ 1 40. do fair to good..... 1 34 1/2 @ 1 36. Shipping, choice..... 1 32 1/2 @ 1 33. do good..... 1 32 1/2 @ 1 33. do fair..... 1 30 @ 1 31. HIDES. Dry..... 11 @ 12. Salted..... 5 @ 6. HOPS. Oregon, 1887..... 6 @ 12. do 1888..... 14 @ 15. do 1889..... 14 @ 15. On Coast, def..... 11 @ 14. On Coast, free..... 13 @ 14. POTATOES. Early Rose..... 40 @ 50. Peerless..... 70 @ 80. Jersey Blues..... 35 @ 45. River Reds..... 35 @ 45. Burbanks..... 60 @ 80. Colley Cove..... 10 @ 12. Sweet..... 10 @ 12. Tomatoes..... 40 @ 50. New, sack..... 75 @ 1 00. PULTRY AND GAME. Hens, doz..... 6 00 @ 8 50. Roosters, old..... 5 50 @ 6 50. do young..... 10 00 @ 13 00. Broilers..... 8 50 @ 10 00. Ducks, tame..... 6 00 @ 9 00. Geese, pair..... 1 50 @ 1 75. do Goslings..... 1 50 @ 2 00. Turkeys, Goldf..... 17 @ 18. Turkeys, Hena..... 18 @ 20. do dressed..... 12 @ 15. Rabbits, doz..... 1 25 @ 1 50. Hare..... 1 25 @ 1 75. EGG FOOD. Manhattan, 7 lb..... 12 @ 14. PROVISIONS. Cal. Bacon..... 11 @ 12. Heavy B..... 11 1/2 @ 14. Light..... 12 @ 14. Extra Light..... 13 @ 16. Corn..... 9 @ 12. Cal. Sm'd Beef..... 11 @ 12. Ham, Cal..... 12 @ 13. do Eastern..... 12 1/2 @ 14. SEEDS. Alfalfa..... 12 @ 13. Canary..... 34 @ 4. Clover, Red..... 12 @ 13. Cotton..... 20 @ 22. Flaxseed..... 21 @ 3. Hemp..... 33 @ 44. Italian Rye Grass..... 10 @ 11. Perennial..... 7 @ 9. Millet, German..... 5 @ 6. Sweet V. Grass..... 75 @ 80. Mustard, yellow..... 12 @ 24. do Brown..... 22 @ 31. Rape..... 11 @ 2. Ky. Blue Grass..... 14 @ 16. 3d quality..... 13 @ 14. Sweet V. Grass..... 75 @ 80. Hungarian..... 7 1/2 @ 8. Lawn..... 27 @ 40. Mesquit..... 6 @ 8. Timothy..... 6 1/2 @ 8. TALLOW. Crude, lb..... 3 @ 5. Refined..... 6 @ 8. WOOL, ETC. Spanish..... 1889.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

DATE. May 1-7.	Portland.				Eureka.				Red Bluff.				Sacramento.				S. Francisco.				Fresno.				Keeler.				Los Angeles.				San Diego.			
	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.	Rain.	Temp.	Wind.	Weather.				
Wednesday .....	.T	76	W	Cy.	.00	54	NE	Cy.	.00	80	S	Fr.	.00	72	SW	Cl.	.00	53	SW	Cy.	.00	83	S	Fr.	.00	74	S	Cy.	.00	58	W	Cy.	.00	60	W	Cy.
Thursday .....	.98	54	S	Ry.	.35	54	W	Cl.	.14	64	NW	Cy.	.T	66	S	Cl.	.04	58	W	Cl.	.00	74	W	Fr.	.00	74	S	Fr.	.00	62	W	Fr.	.00	62	W	Cy.
Friday .....	.02	58	N	Cy.	.02	52	S	Ry.	.02	62	S	Cy.	.00	62	SW	Cy.	.00	57	W	Cy.	.00	74	W	Cl.	.00	74	S	Cl.	.00	64	W	Cl.	.00	64	W	Cl.
Saturday .....	.01	54	S	Cy.	—	—	—	—	.10	50	S	Ry.	.52	54	E	Ry.	.15	56	S	LR.	.00	70	S	Cy.	.00	72	S	Cl.	.00	60	W	Cy.	.00	62	W	Cy.
Sunday .....	.21	62	W	Cy.	—	—	—	—	.84	56	S	Fr.	1.94	56	SW	Cy.	1.29	56	W	Cl.	.32	62	W	Fr.	.01	50	S	Cy.	.16	56	S	Ry.	.T	62	SW	Cy.
Monday .....	.44	50	S	Cy.	.98	—	—	—	.20	56	SE	Fr.	.72	56	S	Fr.	.43	56	SW	Fr.	.00	60	SE	Cy.	.75	70	NW	Fr.	.18	58	W	Fr.	.02	62	W	Fr.
Tuesday .....	.01	54	S	Cy.	.58	54	N	Fr.	.10	56	N	Fr.	.02	58	SW	Fr.	.02	57	W	Cy.	.02	66	NW	Cl.	.00	64	NW	Cl.	.12	58	W	Cy.	.01	62	W	Fr.
Total	1.67				1.93				1.49				3.20				1.93				.34				.76				.46				.03			

EXPLANATION.—Cl. for clear; Cy., clou ty; Fr., fair; Fy., foggy; Cm., calm; — indicates too small to measure. Temperature, wind and weather at 12:00 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.

Branch House,
261 to 267 Front St., Portland, O.

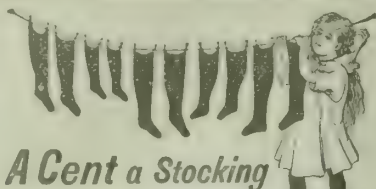
A NEW METHOD OF PRESERVING MEAT.—Experiments have been recently conducted at the Australasian Wool Stores, Melbourne, with a novel process of meat preservation, introduced into the Colony by Col. House of the United States, where, it is stated, the success of the method has already given rise to a flourishing trade in the exportation of fresh meat from that country. The process, by which flesh of all kinds may be preserved for an almost indefinite period, is exceedingly simple, consisting merely in the steeping of the flesh in a liquid preparation patented as "Beniana," the effect of which is to render the meat entirely unsuceptible of decomposition. By this means meat has been kept in a fresh state for over nine months, exposed to the influences of the atmosphere, and yet at the termination of that time has not shown any effect of the treatment, being in taste hardly distinguishable from the butcher's article. The company were shown samples of pork that had been thus preserved for over eight months, after having been kept in the liquid for less than 60 hours. The samples were declared by all present to be perfectly fresh and devoid of any undesirable effect from their immersion in "Beniana." Although the efficacy of this preparation has been well established in the United States, the patentees have conducted a series of experiments in Victoria, with the object of testing whether the effectiveness of the process was likely to be interfered with by different climatic conditions, but the result of these trials has been perfectly satisfactory. The liquid has been submitted for analysis to the Government analyst, who has certified that it contains no deleterious ingredients likely to prejudice the fitness of the meat for human consumption.

MAKING CELLULOID.—This interesting substance, which masquerades as genuine ivory in the shape of flour-triers, paper-knives, combs, brushes, buttons, etc., as highly finished fourply linen in "dickies," collars and cuffs, and reaches its most striking form in the powerful explosive known as gun-cotton, is manufactured by the following process, according to a description in the *Inventor*: A roll of paper is slowly unwound, and at the same time saturated with a mixture of five parts of sulphuric acid and two parts of nitric acid, which falls upon the paper in a fine spray. This changes the cellulose of the paper into proxylin gun-cotton. The excess of the acid having been expelled by pressure, the paper is washed with plenty of water until all traces of acid have been removed. It is then reduced to a pulp, and passes on to the bleaching trough. Most of the water having been got rid of by means of a strainer, the pulp is mixed with from 20 to 40 per cent of its weight in camphor, and the mixture thoroughly triturated under mill-stones. The necessary coloring having been added in the form of a powder, a second mixing and grinding follows. The finely divided pulp is then spread out in thin layers on slabs, and from 20 to 25 of these layers are placed in a hydraulic press, separated from one another by some sheets of thick blotting paper, and are subjected to a pressure of 150 atmospheres until all traces of moisture have been got rid of. The matter is then heated to a temperature between 140 and 150 degrees Fah., after which it issues in the form of elastic sheets of celluloid.

PROJECTED LARGE CANAL IN SWEDEN.—A new canal is at present on the tapis in Sweden, having for its object to connect the Kattegat with the large and important Lake of Venern. The canal will connect the towns of Uddevalla and Gensersborg, and, if carried out, is sure to prove of very considerable importance for a large portion of Middle Sweden, where a number of iron-works are located. The total length of the projected canal is about 12 miles, of which some four miles are lakes. It has been proposed to raise the level of the canal by three sluices above that of the Lake Venern. This would make the canal cheaper to build, but is otherwise attended by several drawbacks, and it may be preferable to incur the additional expense by not making it any higher than the Venern. The depth of water in the Uddevalla harbor and in the Venersborgvik limits the depth of the canal to 21 feet, which would admit of vessels of about 3000 tons passing the canal. The sluices would have to be about 350 feet long and 45 feet broad. From Vermland, Daleland and upper provinces, an export of about 200,000 standards of timber is reckoned upon to pass through the new canal, which would also be the best route for about 100,000 tons of Swedish iron export, and would lower the rate of freight from several wood-pulp manufactories, etc. It is now the intention to collect the necessary funds to have the matter thoroughly sifted, financially, commercially, and from a technical point of view. It is considered necessary that the State should build and own the canal.—*Engineering*.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3.00 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.



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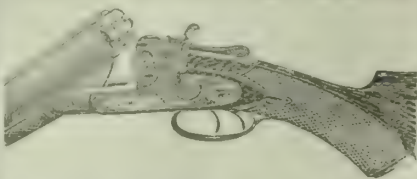
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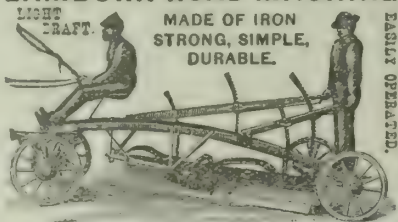
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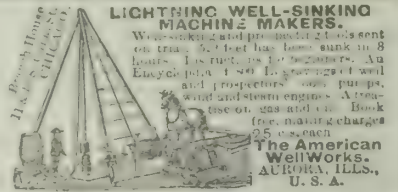
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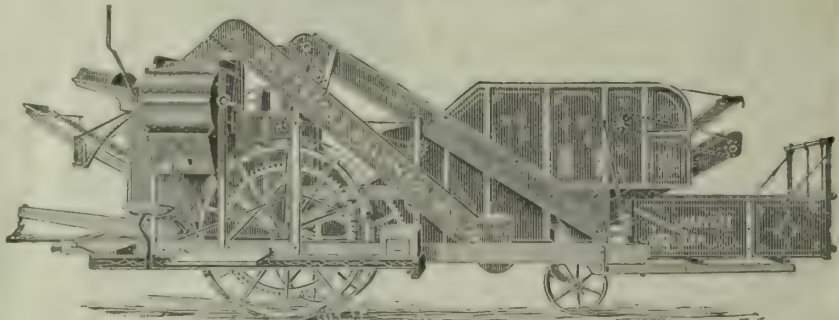


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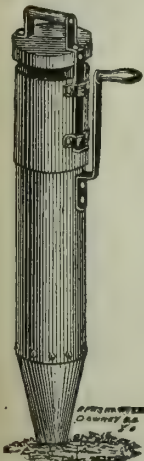
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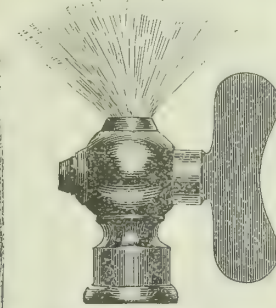


This powder is the preparation specially recommended by Hon. J. De Barth Shorb, Viticultural Commissioner, and Prof. Ethelbert Dowlen, Expert employed by the State to investigate the mysterious Vine Disease. All the powder used by them in their recent experiments was the ONGERTH INSECTICIDE POWDER No. 2, of which about 20,000 pounds have been shipped to the San Gabriel Valley.

See Official Report in Rural Press April 27, 1889.

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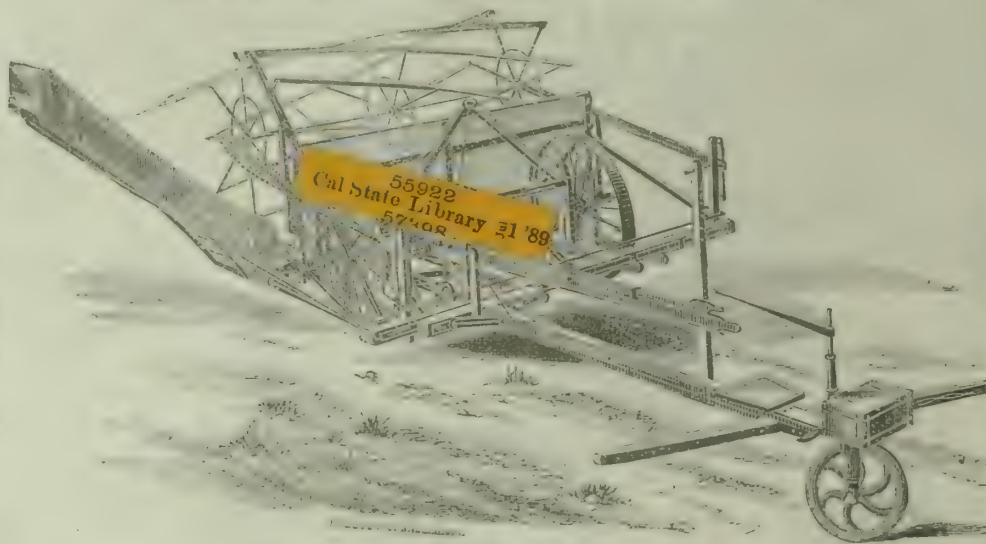
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14 Feet	325



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The Strongest, Fastest and Easiest Operating Baler Ever Made.

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1886



1889

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Full Weight to the Car. So Warranted or no Sale.

18x22 Variable Length, Price \$425.

DOUBLE-ACTING PERPETUAL HAY AND STRAW PRESS.

A MACHINE IMITATED BUT NOT EQUALED

In Symmetry, Simplicity, Durability, Ease of Management, Effectiveness of Power, Fast and Neat Baling. Needs but to be Seen to be Appreciated, and while the Machine is only Claimed to Bale 10 to 15 tons per day's work, yet many parties using the Victor are baling over two tons per hour.

FOR REFERENCE WE NAME YOU A FEW OF THE MANY PARTIES USING IT:

MR. N. MATHEWS, of Los Angeles, says his men have baled with a Victor as many as 37 bales per hour (good weight).
CUNNINGHAM BROTHERS, of Glendora, say they have baled 4800 pounds of hay per hour.

MR. FRANK JOHNSON, Banning, says he is baling six tons per three hours.
MR. JAMES P. BURDICK, of Santa Ana, says the Victor is the only machine baling hay successfully.

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TWENTY-FOUR PAGE EDITION.

Vol. XXXVII.—No. 20.

SAN FRANCISCO, SATURDAY, MAY 18, 1889.

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A Sonoma County Residence.

The building up of large agricultural enterprises with investment of capital in buildings and equipment in keeping with the landed interest and the value of the product is becoming quite common in California. Within the last decade there has been notable improvement in the character of our agricultural structures, both those devoted to family residence and to productive effort on a large or small scale.

founder is still active in its councils, though the main part of the work is done by younger men.

The engraving is presented merely as an illustration of the more costly class of California rural homes and thus an indication of the development of the country.

REDUCED RATE ON CANNED GOODS—The efforts of California canners and shippers to secure a reduction of freight rates on eastward-bound goods have been rewarded in a measure.

Shorter Courses in Agriculture.

It is announced that Prof. W. O. Atwater, who is in charge of the Experiment Station branch of the Department of Agriculture, is preparing a publication to be issued this year on the subject of agricultural education. He will urge the establishment of shorter courses than usually provided for in the colleges of agriculture, and that the requirements for entrance be made much less. The report will

be read at all these schools, and, because of the great practical benefits accruing, the bulletin will strongly advocate the extension of the system. Secretary Rusk is also deeply interested in the establishment of short winter courses of lectures to young men on farms, upon topics related to the successful conduct of their labors.

A THRIFTY FRUIT-GROWER.—Simeon Cook, one mile from Redlands, San Bernardino county, is demonstrating what can be done by a



RESIDENCE AND OFFICE AT FOUNTAINGROVE, NEAR SANTA ROSA, SONOMA COUNTY.

Here and there, too, in many counties, there are larger establishments which are created by the use of combined capital and experience.

The engraving on this page shows the residence and office of the establishment widely known as Fountaingrove, located near Santa Rosa, in Sonoma county. It shows well how the added beauty of large structures and gardening may consort with the natural charms of the country. The Fountaingrove enterprise was established some years ago and has achieved a good name for its product of native wine, which is being marketed through local agencies in different parts of the world. The Fountaingrove estate includes nearly 1900 acres, of which the vineyard now occupies 400, and is being extended year by year. The establishment was made about 25 years ago, and the

At the meeting of the Transcontinental Association, held in St. Louis on the 10th instant, a rate of \$1 per 100 pounds in carloads was established on canned fruits and salmon from all Pacific Coast points to all Missouri river points, St. Louis and Chicago, and will be officially announced in a few days by Chairman Leeds.

DR. C. C. PARRY, the eminent botanist, seems to belong as much to California as to Iowa, and it gave us real pleasure to see him in the Rural office again on Tuesday, and learn that he is tarrying awhile in Oakland with Prof. and Mrs. Lemmon.

THE Delaware peach and pear crop, if all reports prove true, will be so large this year as to require all the agencies of distribution to enable growers to realize any profit.

cite the fact that in connection with the State University of Minnesota an Agricultural School was opened last fall, the course of study comprising two years of 24 weeks each. Graduates of the common district schools of the State are qualified to enter, and they are taught the practical things of farm-life, in addition to the literary branches of learning. The school had been opened but a few weeks when its accommodations were all taken, while the Agricultural College proper has been struggling along for years with barely enough students to form a single class. At the Indian and colored schools at Hampton, Va., supported by the Government, an even more elementary course of agricultural instruction is pursued, and nearly 100 pupils are engaged in it. Experimental stations of the department are lo-

careful fruit-grower on a small farm. During the past season he has marketed \$3000 worth of fruit, \$1800 of which came from six acres planted to oranges. He has 20 acres under cultivation and all planted to fruit except a small patch of alfalfa. Most of his orange trees are but five years old, and largely seedlings, yet he gets a crop which sells for \$125 per acre. Mr. Cook also has some lemons, raisin grapes, apricots and nectarines. When his little farm comes into full bearing he will receive a snug income. He thinks it wiser to pay attention to the business of fruit-raising than to get wild over real estate booms.

THE Board of Supervisors of Lassen have repealed the license on sheep-grazing in that county.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

From Lake County.

EDITORS PRESS:—Lake county is having a most remarkable season. It is seldom we have such a soaking rain so late in the year. As the growth of vegetation, trees and grain here is limited only by the advancing dry season, it must be immense this year. Fruit of all sorts has set quite thick, except a very few kinds, the earliest to bloom—caused, I suppose, by the rain-drenched pollen not fertilizing the embryo which soon dropped off, yet generally there is nearly enough left.

In spite of the disadvantages of isolation, Lake county is fast coming to the front in fruit and grape production. Her rains, followed by the dry north winds, are destructive to fungus growth and insect pests.

Our hopes of a speedy outlet by rail are like the old saying about falling to the ground between two stools. Still we are on the high road to prosperity. Whenever any person has for a time enjoyed the pure, health-restoring air and drank from nature's fountain-springs, he is almost sure to return again to this Switzerland of America.

Taxation.

It would be really laughable to see what a muddle our legislators, Board of Equalization, and assessors are in, were it not for the injustice often done. "All property should be assessed." If property is defined as any particular separate thing that is bought, sold or transferred, then growing crops of grain are property, and may be sold, and are of present value for feed. What are termed improvements, as buildings and fences, have an intrinsic separate value, though it may be greater in connection with the land. Not so with young trees and vines; before coming into bearing they are not of value, except with the land. From the standpoint of justice and equality the way seems easy and plain to me.

C. P. SCRANTON.

Lower Lake, May 7, 1889.

Ranching in Amador County.

EDITORS PRESS:—It has long been customary for many Californians to designate the lowland and coast districts by the suggestive cognomen, "the Cow Counties;" but after a few days' rambling through the foothills of Amador, I think that this county too can lay claim to the same euphonious title.

To one who has lived for many years in the great valleys of this State, it is quite surprising to find so much land in these hills capable of tillage, and more astonishing still to see the rank growth of barley and other crops now rapidly maturing; and the great herds of horses, cattle and sheep, half hidden in the dense growth of wild oats and burr-clover, are all a convincing argument in favor of the climate and fertility of the soil of Amador county. That portion of the county lying below the altitude of 2500 feet is unsurpassed for the growth of all the principal fruits, but the present extremely low prices for the dried product, and the lack of shipping facilities for green fruit, has kept this great industry in the background.

The extension of the railroad from Ione or Latrobe through this section would be a great help to the horticulturists of Amador. Commencing near the town of Plymouth and running in a northeasterly direction for six or eight miles, is a tract of land about three miles in width known here as the Shenandoah valley, presumably not the one that Sheridan "cleaned out."

This magnificent body of land, containing nearly 10,000 acres, is what might be called a rolling prairie, and is only dubbed valley in contrast to the rugged hills on all sides of it. The soil is a stiff red clay, with the rock cropping out now and then, and nearly the whole of this vast tract is at the present time covered with a heavy crop of summer-fallowed barley that bids fair to yield 50 bushels per acre. This red clay soil has proved to be excellent for fruit, and should the railroad come through Plymouth, much of this valley will be planted to trees and vines. For some reason the farmers here do not sow much wheat. I suppose that barley pays better.

Land sells here from \$10 to \$30 per acre, which is, all things taken into consideration, cheap enough. I met one of your old subscribers who has about 30 acres of trees in the Shenandoah valley. His name is John Harrell. He has invented a machine for cleaning dried fruit, and it works like a charm, doing all and more than is claimed for it, and the dried fruit after going through the renovator is as bright and clean as if just taken from the evaporator.

Mr. Harrell has now on hand all of his last crop of dried peaches, the very finest I have seen, but he has held them too long and can get no offer for them.

Probably the most extensive fruit-grower in this county is Geo. Woolsey of Ione City. He carries on a general merchandise business, and is also the owner of the well-known Q ranch near that place. Mr. Woolsey is quite enthusiastic on the question of fruit-growing and

has been making a very determined war upon insect pests in his orchard. His trees show the effect of careful cultivation, and are the healthiest I have seen on this trip.

At the suggestion of Mr. Woolsey, I visited the Agricultural Experiment Station near Jackson, and was very much pleased with the outlook from the top of the station building. If Prof. Hilgard selected this site for the station, he is to be congratulated on his good judgment and true artistic taste for the beautiful and sublime natural scenery. [Prof. Hilgard made the selection, but the choice was based upon such practical considerations as the securing situation and soils which are representative of a large belt of foothill lands. The sightliness of the place, etc., are of course an advantage, but the choice was made for the practical reasons stated.—EDS. PRESS.]

To my great disappointment, the superintendent was temporarily absent, but Mr. Orville Dick, the accommodating young man in charge, kindly showed me over the farm, and I found everything in a prosperous condition, all showing the supervision of a careful and master hand. There are about 20 acres planted to the various kinds of grain, shrubs, trees and vines too numerous to mention in this article; a nice two story house with an observatory on top, a good barn, a reservoir with water piped to all parts of the grounds, and best of all, a good graded road, leading down to the main Jackson thoroughfare, so that it is an easy drive to the station, although it stands on the top of a mountain 2000 feet high.

From the summit one has a full view of the great valleys, as far west as Mt. Diablo, and at night the electric lights of Stockton and Sacramento are visible, while on a very clear day Mount Shasta's snowy peak shines like a huge mirror in the northern landscape.

Soon after leaving the station I had the good fortune to meet Mr. Hansen, the superintendent, and found him to be a very genial gentleman who impressed me as being the right man for the position.

W. W.

FORESTRY.

Meeting of the Forestry Commission.

The new State Forestry Commission, composed of State Senator Frank J. Moffitt of Oakland, Cal., Walter Moore of Los Angeles, and John D. Spreckels of San Francisco, held its first meeting last week at the board's quarters in the Flood building.

Senator Moffitt was made president of the board.

Sands W. Forman was chosen secretary, W. S. Lyons head forester and Ben Fehnmann, Ed J. Niles and Phil D. Gaffey special agents to prevent and suppress forest fires and other damage to the timber resources of the State.

It was decided that inasmuch as the Board of Foresters of Chico would care for the experimental station there, the State Board would not appropriate any money for it or the station at Santa Monica.

Chairman Moffitt stated that his colleague, Senator W. E. Dargie, would present to the State 25 acres of land in Santa Barbara county for the establishment of an experimental station. The matter was referred to Senator Moffitt to confer with Senator Dargie and report. The matter of the Livermore station was similarly referred.

Senator Moffitt moved that 40,000 oak trees, embracing the 17 varieties, be presented to Oakland for planting in that city. The motion was adopted.

The secretary of the board was instructed to confer with the Park Commissioners of San Francisco relative to the presentation by the board to the park of 50,000 ornamental trees and shrubs from the Santa Monica and Livermore stations. Several thousand trees in Merced will also be offered to the Park Commissioners of San Francisco and Oakland.

Timber Culture Entries.

WASHINGTON, May 6.—Secretary Noble today rendered an important decision in the case of James Hair of Kerwin, Kas., on appeal from the decision of the Commissioner of the General Land Office, in which he reverses the ruling of the department during the last administration relative to the amount of timber allowable on timber-culture land entries. Hair in his application makes oath that on the land in question there are two cottonwood trees and four cottonwood sprouts two inches in diameter. The section was returned by the official surveyor as timber land, under the ruling of the department that the words "devoid of timber" in the timber-culture Act necessarily mean "without timber" or "destitute of timber." The entry was therefore not allowed.

The Secretary says: "No arbitrary rule can be established for the government of every case. It should be the desire of the department to ascertain what the intent and purpose of Congress was in the passage of the Act. It stands to reason that it was not the purpose to deprive occupants of the vast prairies of the West of the benefits of the Act if there happened to be a single tree upon the section. I take it that the words 'prairie land, or land devoid of timber' within the spirit of the Act, mean land practically so. To give the Act the

construction placed upon it by the last decisions, just cited, according to their legitimate deductions and fair conclusions, would prevent the entry of any prairie land that had timber of any character upon it, standing, fallen or otherwise. This is certainly too narrow a view to take of the Act. As the testimony in this case is conflicting as to the amount of timber on Hair's claim, a further examination is ordered."

THE VETERINARIAN.

A Case of Impact.

EDITORS PRESS:—Not long since I was called to prescribe for a sick cow. Will you please inform me, as nearly as you can, as to what in your opinion is the matter?

The animal is a valuable Jersey milch cow; has been very well fed on bran and hay, redtop clover; was very fat. I found her "off her feed," refusing to eat or drink; pulse normal, 50; respiration, 14; horns, tips of ears, and the legs cold to the touch; muzzle dry; eyes bright and full; evacuations, normal; occasionally grating her teeth, and driveling from the mouth; flow of milk diminished.

I tempted her appetite with a kind of hay of which she was particularly fond. She ate a few small mouthfuls, suddenly stopped, pawed the ground, and shook her head, apparently in great distress. A few moments after she was taken with what appeared to be a slight chill, quivering and trembling in every muscle of her body, which soon passed off, and she was seemingly all right.

This was on a Thursday. She had then been sick two days; had been noticed once before having a chill. I concluded she had been overfed, and directed her feed to be withheld till the next morning; gave her a quart of raw linseed oil and slight external treatment to improve the circulation in the extremities.

Next morning (Friday) she seemed better; extremities warm; muzzle sweating, but still refusing food and water. Gave her another quart of oil, and drenched with a quart of gruel three times during the day.

Next morning (Saturday) she continually grated her teeth with a loud, harsh sound, frothing at the mouth. An examination showed a decided change; legs cold up to her body, mouth and tongue cold, ears and horns cold, muzzle cold and dry, constipated bowels, urine normal, pulse 80, respiration 20. Later in the day, fore feet and hind feet close together, and back arched, eyes sunken.

During the two days preceding, she had not been observed to chew her cud, nor had she of her own accord eaten anything; flow of milk very nearly ceased. I decided that impaction of the omasum, attended with gastritis, was the trouble, and gave the following:

Gentian, 2 oz.
Bicarb. soda, 2 oz.
Extract belladonna, 2 dr.

Three doses, two hours apart, with no apparent result. I then gave the following:

Magnesia sulphate, 10 oz.
Sulphuric acid, 20 drops.
Quinine, 30 grs.

Within an hour she had stopped grating her teeth, and the pulse had perceptibly lowered.

Next morning (Sunday) she was much better, but showed signs of exhaustion. I gave the following:

Sulphuric acid, 20 drops.
Quinine, 30 gr.

In a tumblerful of whisky every three hours, and also drenched her with gruel made of flaxseed-meal and cornmeal cooked together.

She apparently rallied under this treatment, and next morning (Monday) was still further improved; all her extremities warm, eyes full and bright, muzzle sweating, pulse 50, respiration 16, bowels normal, flow of milk increasing; ate a small bran mash, but refused hay. I made a cud and gave her. Next day she chewed her cud, but refused to eat anything, and has steadily refused to eat or drink since.

Wednesday and Thursday following, she had several what I would call paroxysms. I first noticed her looking at familiar objects as if they were strange, not wildly or staringly, but with a puzzled look. Suddenly she gave a start as if she had received a blow. Then the muscles all over her body began to twitch and play, slowly at first, but increasing in violence until it seemed as if she would shake to pieces. The paroxysm seemed to reach its climax with a powerful spasmodic jerk of all the muscles of her body at once, that almost lifted her off her feet, after which the spasm passed away exactly as it came on, leaving her looking at familiar objects with the same puzzled inquiring air that I first noticed at the beginning of the attack.

In less than three minutes from the beginning of the attack, she was walking around the yard as though nothing unusual had happened. After the spasm had passed there was no increase of pulse or respiration.

I find that firm pressure with the hand in the hollow where the windpipe and gullet enters the body causes her great pain.

I hope that I have not become tedious. I have tried to present every phase of her symptoms. Hoping I have made the cause plain to

you, I await your answer with great interest.
Grass Valley, Cal. WILLIS PEASLEE.

Comments by Dr. Buzard.

EDITORS PRESS:—From the above symptoms I think there is no doubt of the case being impaction of the omasum or third stomach, commonly known as "staggers," "vertigo," etc. Symptoms—The animal stands, and with difficulty can be moved; it is dull, and suffers from acute pain; the pulse is hard and frequent; there is often a grunt; general signs of disease are present. In the latter stages the brain becomes affected, there are muscular tremors over the surface of the body, a staring of the eyes, which are often insensible to light, a staggering gait, sometimes terminating in paralysis; often the animal will rush about; occasionally the tongue protrudes and becomes swollen. I have also seen the urine tinged with blood. There is always obstinate constipation a short time after the animal is attacked. Sometimes this disease terminates in *omastitis*, inflammation of the omasum, accompanied by the usual signs of fever.

Treatment.—When the brain is involved, it is good practice to bleed. Strong cathartics are necessary; sulphate of magnesia is useless, as it acts only on the bowels. I depend solely on linseed and croton oils, and in extreme cases I resort to gamboge. It is also necessary to give stimulants. I prefer the preparations of ammonia. We must know that we have a relaxed organ, and it is necessary to restore its tone. Enemas should be regularly given, and no food of a solid character allowed, or any that would be necessary to be remasticated, as the animal ceases to ruminate. Making a cud and giving it to a ruminant that has ceased to ruminate, for the purpose of making it chew its cud, is all bosh. Sedative medicines, unless *omastitis* has set in, must be always avoided. Counter-irritation is also of great service.

A. E. BUZARD M. R. C. V. S. L.
No. 11 Seventh St., S. F.

HORTICULTURE.

The Fruit-Growers' Convention No. 4.

The proceedings of the Fruit-Growers' Convention at National City continued with the following important essay by Hon. Russell Heath of Carpinteria, Santa Barbara county, on the growth of the

English Walnut.

Having been invited by the society several times to give my views on the English walnut, so called, and its culture, I have consented to do so with reluctance, believing that others could do it much better than myself. I must preface by saying that when I commenced the culture of the nut in 1858, I was profoundly ignorant on the subject, but believed there was a future in its cultivation that would be not only profitable to whoever engaged in it, but would add something to the development of the great resources of our new home. I have not been disappointed in my expectations. They have been more than realized. Commencing with the cultivation of many of the other fruits and nuts now profitably cultivated in California, I gradually came to the conclusion that it would be better to make a specialty of some one thing in preference to the cultivation of many. I selected the walnut as my specialty, although I have on my place many of the stone fruits. I hope it will not be considered outside of the question allotted to me if I give some of my opinions on the profit of fruit culture in California. Most persons when they commence this industry make up their minds that they must have everything on their place. This is a laudable desire. I have done it myself, but I am firmly impressed it is better to have a specialty and turn your energies to the thorough development of one or two kinds of fruit, if the desire is to make money by it. I do not desire to be understood as saying that the walnut is the best to make money out of. There is money in the cultivation of all of our fruits. What I desire to impress upon the minds of fruit-growers is that a thorough system is necessary to success.

Trees and vines cannot be planted and neglected and remain profitable. Anything that is worth doing is worth doing well. Almost all of our fruits require a different kind of treatment and handling. With too many irons in the fire some are apt to burn, and in the burning your fingers are apt to come in contact with an unpleasant heat. Now for the walnut. This fruit has various names. By some it is called the English walnut, by others the Madeira nut and Naples walnut. It takes these numerous names from the different locations where it is cultivated. It really is of Persian origin, and ought to be distinguished by that name, and that only. It is said to be true to its seed when planted, and I believe it is, although in the planting of great quantities of seed the fruit may be somewhat different; that is, the shell may be harder or softer than the nut planted, but the kernel remains the same in flavor; in that there is no difference. The soft and medium shell nuts (and we have no hard shells) have their advocates, and much may be said concerning them—some cultivators preferring one variety and some another. Upon that question I do not desire to enter, but simply say I have both varieties, and after years of

experience I have discontinued the planting of any variety but the medium shell. In Persia the tree comes in bearing at eight years from the planting of the seed; in Italy, Spain, and the Island of Madeira, in about 16 years; in France—the southern part—in 18; in England, 24; in California, 8 years, the same as Persia. So I take it the southern part of this State is nearest its original home. Some cultivators claim that trees have produced younger than eight years from the seed. That is not my experience. If it is true, and I am assured it is, then I say we beat its native home, and this adds one more laurel to California's fame in fruit culture. In the cultivation of this fruit my advice would be, get your trees from the seed or seedlings in preference to grafted or budded trees.

Not much can be gained by grafting or budding unless you desire to change the variety, as the tree comes in bearing as soon as its size could possibly make it profitable. Much has been written about the localities and soil best adapted to the planting of the walnut, some asserting that they will grow anywhere, on rocky and uninviting hillsides, on stiff clay and adobe lands; any place is good enough for the walnut. I will admit they are a hardy tree.

You can rear a pig on sour skim milk, but will it not do better on more nutritious food? The walnut should be planted for profit and best results, on deep, rich loam, with no hardpan, stiff clay, or impenetrable subsoil nearer than 12 feet. I would select locations naturally moist in preference to lands requiring irrigation. A temperature of 60 to 80 in summer-time, I regard as more favorable than hotter localities, although they thrive and are profitable in much hotter places. I have adopted for planting, 40 feet apart, and this distance will do for 100 years, with judicious side pruning. As to their age I can only say they are a hardy, long-lived tree, like the oak, and ought to produce fruit in abundance for at least 1000 years. In handling the fruit, I cure in dry-house by artificial heat, heating sufficiently to evaporate the water, and set the oil of the nut. When this is done the nuts will keep sweet for an indefinite time. I have kept them as an experiment in my storehouse, which is of concrete, for five years, and at the end of that time they were as sweet as when first cured. With my facilities I cure them in about eight hours. In preparing them for market, I have a washing apparatus, invented by Mr. Ellwood Cooper, president of this society, which I use if the nuts are discolored, as they often are, by coming in contact with leaves or shucks when there is dew or rain. Directly after washing, they are thoroughly dried and cured in the drying-house. I regret to say some purchasers desire the nuts bleached, to give them a nice bright appearance, which is done with sulphur and some other substances. It is hardly necessary to say that I disapprove of this method of preparing the fruit, as it cannot be accomplished without affecting the keeping quality as well as the taste of the fruit.

Horticultural Machinery.

Henry A. Brainard of San Jose, quarantine guardian and editor *Santa Clara Valley*, furnished the following essay:

Within the recollection of a middle-aged man we have seen a wonderful progress in agricultural machinery, particularly in harvesting appliances, counting from the time when men grasped the growing grain by handfuls and cut it with the notched edge of the crooked sickle; when it was beaten from the chaff and straw by the hickory wingel of the flail, falling in measured cadences upon the thrashing-floor, and when it was winnowed in the evening breeze, down to this day when the ponderous machines upon our California fields do the work by wholesale at a rate which you know better than I can describe.

In horticulture it is only recently that machinery has come to play an important part, but the progress is quite rapid and there are many operations connected with it now profitably performed by machinery which formerly required hand labor.

In the work of cultivation, horticulture has shared with agriculture the improvement in the machinery for breaking up and pulverizing the soil, but special implements have been invented to work close to the trees and others to prepare the surface of the ground and put it in the best condition to endure drouth, so that in this respect horticultural machinery is perhaps all that can be desired.

We can remember when trees were pruned with the ax and knife, but we now have powerful shears and sharp saws that seem nearly perfect in their operation. There may be room for improvement in tools for pruning large trees.

It is in gathering and preparing fruit for market that the more recent improvements have been made, and it is in this direction that invention may be exercised with great profit.

Gathering fruit is still mostly done by hand. The only exception is the prune, which may be gathered by machinery with considerable advantage.

A recent invention by a San Jose orchardist consists of two pieces of canvas attached to each side of a San Jose orchard truck on which are placed the fruit boxes covering the whole bed.

Driving the truck up to a tree, two men quickly spread the canvas; a smart shake brings down all the fruit that is ripe enough, and quicker than we can tell it the canvas is lifted

and the fruit rolls into the boxes, passing in its way over some slats where all the leaves and twigs are separated. With this machine two men can do the work of 20 who shake and pick by hand. Apricots and peaches must still be picked by hand, for no machinery can replace the eye, which distinguishes ripe from unripe fruit.

There is a machine which will grade these prunes into any desired sizes, rejecting entirely all fruit that is not fit for drying. Grading is advantageous in tending to make the trays dry evenly.

What is now needed is an apparatus that will, in one continuous operation, pass these graded prunes through the bath of hot lye-water, again through the clean water, and deliver them on trays.

There is room for an invention by which these trays can be placed upon the drying ground or in the evaporator with less manual labor than is now required.

The perfect fruit evaporator has not yet been invented, and there is plenty of opportunity for improvement. It is pretty evident that for driers on a large scale the heat must be distributed by means of steam pipes or radiators, so that it can be regulated exactly, without reference to the fire, only that it be hot enough to do the work.

Cherries, plums, apricots and freestone peaches may be pitted by machinery for drying. For canning, the clean out made by the knife in the hands of a skillful operator is still required, and we have seen a newly invented knife for this purpose, having a spur near the base of the blade for removing the stone, that seems the best ever offered for this purpose.

We have seen a machine that will pit 1200 cherries every minute, and if driven by power will require only one hand to tend it. By a little change the same machine can be arranged to pit 360 apricots or peaches in a minute. Another machine saws the apricot or peach in twain with two revolving saws which spring apart at the stone and remove it. Both these machines divide the fruit into equal halves, but in every possible direction in relation to the natural axis of the fruit.

We have seen another machine, yet in the experimental stage, which requires the fruit to be placed in position by hand, but the operation of cutting and removing the stone was entirely automatic. This machine will cut as regularly in relation to the axis as by hand if the fruit is symmetrical. With fruit in the proper stage of ripeness, these machines will doubtless answer the purpose intended. To one of these machines may be attached an arrangement for spreading the fruit upon the trays, but for this purpose the trays must be made to fit the machine and on purpose for it.

A better grading machine is needed for prunes after drying, for even if graded before drying they will not be exactly the same after this process. Apricots and peaches may, if desired, be graded before drying, but they always need more or less hand-sorting afterward.

Opinion seems to be against dipping fruit into hot water previous to boxing, but we are inclined to think some heating process will be necessary to destroy inside germs unless the fruit is evaporated and packed dried from the evaporator. Here, then, an invention is needed which will pass the fruit through a close, heated chamber before packing.

A machine is also needed which will automatically place the proper weight of fruit into boxes or sacks in the same manner as is done by the flour or starch-packing machines.

In the case of orchards there is no more useful piece of machinery than the spray pump. There is hardly a month in the whole year when there is not a need for such a machine. California inventors have been active, and the latest and best patterns of pumps have large air chambers and receptacles holding several gallons, and the pressure can be raised and kept at a hundred pounds or more per inch, making a spray as fine as steam. The better class are equipped with a pressure gauge and relief valves to prevent a bursting pressure on the hose or air chamber. With the great odds against which the American fruit-growers have to contend as against the European grower, who has cheap labor, cheap ocean freight and small import duty, the balance must be made with our productive soil and the perfection of machinery to do much of the work which has been done by hand.

RAISING CORN FOR FUEL.—The St. Paul (Minn.) *Pioneer Press* recommends the growing of corn for fuel, since "three acres of it will itself supply a winter's fires, but could not be sold for enough wood or coal to do it." Corn may be used in either a wood or coal stove without any change of grates, and makes a steady, hot fire, which can be regulated as readily as a coal fire. Two bushels of corn in the ear, it is estimated, will keep a comfortable fire the coldest day in winter. Regarding the squeamishness about burning an article that is used for food, the writer says: "I would sooner have an acre of corn that can be replaced in a single year than to burn an acre of timber that it takes years to replace, even on the score of sentiment." There is common sense in this. It is cheaper for people on the fertile prairies to raise their fuel, as they do their food, and save what little timber they have for other purposes. While there can be no excuse for wastefulness, there is good reason for burning corn when it is of more value for fuel than the proceeds would be if used in the purchase of wood or coal.

SHEEP AND WOOL.

Wool Facts and Figures - No. 6.

[Written for the Rural Press by J. R. F.]

The best authorities on sheep husbandry generally concede that prior to 1860 the sheep and wool statistics of the country were defective and therefore only served as a guide in showing its growth rather than thorough accuracy, such as is now obtainable. For the sake of tracing the growth in the United States, I give the following, compiled from the best obtainable authorities.

In 1810 it is stated that the number of sheep was 10,000,000 and the pounds of wool 13,000,000. In 1812 the number of sheep had increased to 11,500,000 and the wool clip to 21,000,000 pounds, with the quality of the latter much finer. In 1836 the number of sheep had risen to 17,000,000, which had increased to 19,311,374 in 1840, with the wool clip placed at 35,000,000 pounds. In 1850 the census report gave the number of sheep at 21,723,220 and the wool clip at 52,516,950 pounds. In 1860 the census returns gave the number of sheep at 22,471,275 and the wool clip at 60,511,343 pounds. These returns, inaccurate as they are claimed to have been, show a steady increase in the weights of the fleeces, which goes far in proving that the breeding must have been for wool as well as for mutton.

After the civil war, more attention was given to sheep husbandry, and as emigration from abroad set to the United States, the railroad system enlarged, drawing each year into settlement large tracts of land. Naturally, as transportation facilities increased and security against loss became more assured, the sheep industry made rapid strides. The most decided commencement of the development of the industry was in 1869, and it continued to grow up to 1884, since which time it is generally conceded that the number of sheep and number of pounds of wool shorn have steadily decreased. The railroad expansion of the country, which gave the industry its first great impetus by making land too valuable, thereby lessening the pasturage, has contributed no little in reducing the flocks.

The census returns of 1870 gave the number of sheep in the country at 28,477,951 and the wool clip at 100,102,387 pounds. In 1880 the total clip had risen to 240,000,000 pounds and the number of sheep to 40,765,900 head. Statisticians and those in the trade place the number of sheep in this country in the following years as follows: 1884, 50,626,626; 1885, 50,360,243; 1886, 48,322,331; and in 1887, 44,759,314. The wool clip is placed as follows: In 1884 at 308,000,000 pounds; in 1885, 302,000,000 pounds; in 1886, 285,000,000 pounds; and in 1887, 265,000,000 pounds.

J. R. Dodge, statistician of the Agricultural Department, Washington, gives the following estimates of the average weight of the fleeces: In 1840, barely 1.85 pounds; in 1850, 2.42; in 1860, 2.68; in 1870, 3.52; in 1880, 4.79; and in 1887, about 6 pounds. The same authority says that the population of the country has not kept pace with the growth of the wool crop. In 1860 the country produced a little over 2 pounds to each inhabitant; in 1880, a little over 4 pounds; in 1885, over 5 pounds.

The sheep industry in this State (California) as reflected through the wool clip is an interesting study, as the following compiled table shows:

Year.	Pounds.	Year.	Pounds.
1854	175,000	1871	22,187,188
1855	300,000	1872	24,255,468
1856	600,000	1873	32,155,169
1857	1,100,000	1874	39,350,781
1858	1,428,000	1875	43,532,223
1859	2,378,000	1876	50,559,970
1860	3,055,345	1877	53,110,742
1861	3,721,998	1878	49,862,091
1862	5,990,300	1879	46,903,360
1863	6,268,48	1880	46,074,154
1864	7,923,670	1881	45,076,639
1865	8,919,931	1882	49,527,119
1866	8,532,047	1883	42,848,690
1867	10,288,600	1884	37,415,330
1868	14,232,657	1885	36,561,390
1869	15,413,970	1886	38,519,100
1870	20,072,610	1887	31,564,231

In Oregon, Washington, Idaho and Montana there has within the past two decades been a steady increase, owing to better pasturage. Many flocks were taken from this State into Eastern Oregon and Eastern Washington.

Turning from the United States to foreign countries, we find that outside of the thickly settled nations where land is valuable, they have kept pace with us. The English Colonies in Africa sent to England in 1845, 3,500,000 pounds of wool; in 1850, 6,000,000; in 1855, 11,000,000; in 1859, 14,000,000; in 1870 they produced 41,000,000 pounds, which was increased to 46,000,000 by 1880. India exported to England in 1840, 2,500,000 pounds of wool; in 1850, 3,500,000; and in 1859, 14,000,000 pounds. In 1870 it is stated that the clip was 30,000,000 pounds, and in 1880 over 50,000,000. Australia, another Colony of England, had a wool clip of 1,000,000 pounds in 1830, 3,776,191 in 1835, 9,000,000 in 1840, 24,000,000 in 1845, 39,000,000 in 1850, 49,000,000 in 1855, 55,000,000 in 1860, 193,000,000 in 1870, and 392,000,000 in 1880. The number of sheep in 1880 was 51,000,000, which shows that the average weight to the fleece was eight pounds. Notwithstanding a severe drouth, destroying from

10,000,000 to 12,000,000 sheep, Australasia in 1885 exported 455,476,000 pounds of wool.

In the Argentine Republic the wool industry has shown a most remarkable growth, for in 1887 the number of sheep is said to have been 80,000,000, fully as many as there were in that year in Australasia. The following is the order in which the other countries come as wool-growers: Russia, England, France and Germany.

To give a better idea of the status of the wool industry in 1887, I take the following from an article written by me for a contemporary:

The production of wool is as follows in its raw state and after cleaning:

	Raw, lbs.	Clean, lbs.
Europe	584,000,000	400,000,000
Asia (India and Caucasus)	100,000,000	50,000,000
Africa	75,000,000	45,000,000
North America	346,000,000	168,000,000
South America (excluding Brazil)	340,000,000	120,000,000
Australia	430,000,000	220,000,000
Total	1,875,000,000	1,003,000,000

By the above table it will be seen that the loss in weight by cleaning is very large in Asia and North and South America, which necessarily shows that there is something radically wrong in the sheep husbandry in those particular sections of the globe. South America does not manufacture woolen goods, so the only consumers of wool for manufacturing purposes are the United Kingdom, the Continent and North America.

The Messrs. Schwartz, who are a recognized authority, place the production and imports of the three great consuming (manufacturing) areas as follows:

	In 1887.	Production, lbs.	Imports, lbs.	Total, lbs.
United Kingdom	134,000,000	.....	.....
Continent	450,000,000	.....	.....
North America	846,000,000	.....	.....
Total	930,000,000	.....	.....
In 1887.
United Kingdom	258,000,000	.....	.....
Continent	550,000,000	.....	.....
North America	104,000,000	.....	.....
Totals	942,000,000	.....	1,872,000,000

According to population, the United Kingdom is the largest consumer of wools, using over 300 per cent more than North America, and about 50 per cent more than the Continent. Germany is the largest consumer on the Continent, owing to wools coming in free of duty. To obtain a better and more distinct impression of the situation, we give the following statistics for ten years past of the consumption and population per head:

Yrs.	Population.	Consumption, lbs.	per head, lbs.
1878	357,000,000	1,514,000,000	4.25
1879	361,000,000	1,522,000,000	4.22
1880	366,000,000	1,633,000,000	4.46
1881	370,000,000	1,627,000,000	4.40
1882	374,000,000	1,711,000,000	4.58
1883	378,000,000	1,727,000,000	4.57
1884	383,000,000	1,820,000,000	4.75
1885	387,000,000	1,830,000,000	4.73
1886	391,000,000	1,911,000,000	4.89
1887	395,000,000	1,872,000,000	4.74

As will be seen by the above, the consumption per head has not only increased, but there is an increase in the number of consumers. Judging the future by the past, it can be confidently asserted, even without wars, that within the near future the consumption of wool will be in excess of the production, when a much higher range of values will follow.

A Much-Grafted Rose-Bush.

H. L. Barker, who resides at 1814 Union street in this city, is not a professional gardener, but has a fancy for experiments in grafting. He has in his garden one rose-bush, trained upon a fence with an eastern exposure, which (the *Call* states) has reached a height of 16 feet and a spread of nearly 12. The parent stalk, a few inches above the ground, is nearly five inches in circumference. It is of the variety known as the June or Hundred Leaf rose, and grafted upon its branches are 12 other varieties, all hardy, so that at present there may be seen upon this bush 13 varieties of roses mostly in bloom, but a few yet in the bud. The parent stalk is ten years of age, and the several grafts range from one to ten years. Before this result was obtained, Mr. Barker made at least 200 grafts. The bush shows in all the wealth of beautiful colors the pale pink June rose; the delicate Solferino; the hardy John Hopper, with its bright rose-colored leaves and carmine center; the buds of salmon-colored rose, Mme. Pauline Labonte; the intense glowing crimson and very beautiful Duchess of Edinburgh; two varieties of the salmon-colored mottled rose, the Homer; the exquisite Lamarque, a white blossom spreading to lemon; a few Lady Banksias, while in the shade of green leaves are several buds of Le General Jacqueminot, that rich, crimson-scarlet, velvety rose, which is so much sought after, and here and there are branches heavy with those pure, white blossoms known as Mme. Plantier.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Alameda and Santa Clara Picnic, Alameda.....May 25
 San Joaquin Co. Pomona, Lodi hall, Lodi.....May 25
 Bennett Valley Picnic.....May 25
 Butte Mt. Pomona, Masonic hall, Yuba City.....June 29
 Sonoma Co. Pomona, Santa Rosa.....July 17
 State Grange, Sacramento.....Oct. 1

Oregon.

Marion Grange, Surprise Grange, Turner.....May 25
 State Grange, Salem.....May 28
 Molalla Picnic.....June 4
 Pleasant Valley Picnic.....June 7-8
 Dallas Grange Picnic, Luckiamute Falls.....June 7-8
 Lane Co. Picnic, Stafford.....June 15

Some Things in Our Grange Edition.

In our Grange Edition to-day the following matters of interest are mentioned at more or less length:

State Master Hayes Before the M. C. P. G., Three Oregon Granges, A Touching Obituary, Watsonville Work, Dr. Caples' Counsel, In Memoriam, Linn County Business Council, From Oswego Grange, A Hint to Correspondents, From Tulare, A Live Grange, From Secretary J. D. Huffman, A True Appeal to Farmers, Letter-Notes.

Education by Conversation.

It is not what we eat which gives us strength, but what we digest; it is not the quantity but the quality of the books read, and the impression they make upon the memory, which imparts scholarship. Some of the brilliant men whose names are famous in our early annals had but three or four books in the parental library, and of a character which the dime-novel reader would spurn; but these were books which nourished the mind and prepared it for ripe scholarship. Many men do not read modern books, but study the newspapers thoroughly. It is surprising to see the information they have gleaned. Men whose weeks spent in school might almost be counted on their fingers can converse about art, music, the drama, science, explorations; they understand chemistry, mineralogy, geology, botany, zoology; Stanley's explorations for recent times are counterbalanced by Columbus' and Captain Cook's. They know all about our Philadelphia Centennial; they are posted upon the present French Exposition. There seems to be nothing past or present of sufficient worth to know of which they are ignorant. They learn because they are not afraid to confess ignorance. They endeavor to glean something from every conversation. Often they are better listeners than talkers, not because they cannot talk, but because they are more anxious to learn than to impart. How much could be learned in our Granges if all would try! In addition to the ordinary routine of farming, intersperse knowledge on topics generally relegated to the professions. When farmers are well posted on a generality of topics, it will be easier to get the recognition which is needed to smooth the pathway and rid it of inequalities which now make it a burden. Let some experienced person read a certain portion of the ritual at each meeting, and have all listen, especially the officer whose lecture is read. It is a shame that a Patron who has been a regular attendant for years should mispronounce a single word. Such ignorance is unpardonable, and belies our assertion that the Grange is a school. Let all Patrons try the experiment of asking questions, and if any be unanswerable, let each one try and answer it before the next meeting. It will not be long before the Grange trying this experiment will have members whose knowledge will be enviable and worthy of comparison with men who are commonly supposed to be on a higher intellectual plane than the horny-handed sons of toil.

CO-OPERATION is one of the principles of the Grange. It is to be hoped that the theory may be practiced extensively and successfully. When the farmer realizes that he can get what there is in his work—that the bulk will not go into the hands of the non-producing middlemen—he can work with greater enthusiasm and produce more than if his ardor were chilled by the thought that he is sowing for others to reap. In England co-operation has made considerable headway; in towns there are co-operative stores and factories, while rural communities have farms conducted in a similar manner. We are indebted to Bro. J. T. Cobb of Michigan for more than a dozen copies of tracts on these subjects, issued by the Central Co-operative Board of Manchester, England.

SUBSCRIBERS who are Patrons, or feel interested in the Grange should bear in mind that, upon application, they can receive the Grange edition of the Pacific Rural Press, containing two or more extra pages of Grange news, in place of the regular edition, without extra cost or the loss of any considerable amount of valuable reading or advertising matter.

Alameda and San Jose Grange Picnic.

Arrangements are now pretty well under way, we think, for one of the largest and best picnics yet held in Alameda county. Joaquin Miller, the poet, and Governor Waterman, as elsewhere noted, have accepted invitations to be present and participate in the exercises and pleasures of the occasion.

The old pioneers who have a local organization in Eden, Murray and Washington townships, all within driving distance of Alvarado, have indicated their desire to be present.

We learn from San Jose that a good interest is taken there by the Grange in the affair, and there should be a large turnout of Grangers, farmers and their citizen friends from San Jose and intermediate stations on the Narrow-Gauge railroad line. The entrance to the picnic is free.

Round-trip rates on the railroad will be 75 cents from San Francisco and intermediate stations and San Jose and intermediate stations. Alvarado is centrally located between Oakland and San Jose. This picnic will afford an excellent opportunity for all who love to spend a day in the rural districts in a pleasant, informal way with the yeomanry of the country. It is open to all well-behaved people, old and young, who are worthy and can appreciate such an occasion.

A brass and string band will be present to discourse enlivening music appropriate to the wants of the terpsichorean and patriotic participants, both old and young.

Trains will leave San Francisco at 8:15 and arrive at Alvarado at 9:45 A. M.; leave Alvarado for San Francisco at 5 P. M.; leave San Jose for Alvarado at 7:46 and arrive at 8:38 A. M.; also leave San Jose at 9:46 and arrive at Alvarado at 10:41 A. M. Returning, leave Alvarado at 3:52 and 5:55 P. M.

It is hoped that a goodly number of Patrons will also be present from Contra Costa county Granges as well as some representatives from all parts of the State, all of whom will be very heartily welcomed.

No lengthy addresses will be delivered, and but a short time will be occupied for literary exercises, including a few remarks by distinguished visitors and Grange speakers.

We hope members of each Grange will be very active between now and the 25th inst. in securing a large attendance and making the occasion a success in all respects. Tickets can be obtained of the members of Temescal and San Jose Granges and by specially calling for them at the ticket offices in San Francisco and Oakland, and also Alameda and East Oakland; also at San Jose, Santa Clara and Agnew stations and at the office of the Secretary of the State Grange.

A Pleasant Visit to Napa.

We recently paid a visit to the home of W. A. Fisher, one of the pioneers actually engaged in farming near Napa. His fine residence is situated near the race course, and embraces most excellent tillable lands. His homestead is well divided off into orchards, pastures and grain-fields. From brief observations made, we think Mr. Fisher has fortunately established himself in a diversified agriculture which makes his farming apparently safe, comfortable and progressive.

We are indebted to him for a pleasant ride through a thrifty orchard district between the central valley road between Napa and Calistoga and the western hills. Most of the orchards seem in good bearing condition for the season. From prices of fruit-bearing orchard lands, we judge that prices rate from one-half to two-thirds the cost of similar lands thus favorably located in the Santa Clara valley.

Mr. Fisher has been a great reader and has a select library, of which he has made excellent use.

The wine interest seems to be discouraged this season owing to the low price of wine, otherwise the fruit and farm crops seem to promise well. The acreage of corn in this valley has increased greatly in the past few years.

The line of small steamers running daily from San Francisco up Napa creek to Napa City is a decided advantage to producers. With improvements likely to be made and an increase of produce in the valley, much lower freight and passenger rates will, no doubt, ere long, be in vogue. There are public improvements needed which could be watched over unitedly by a large and prosperous Grange, such as the valley ought to support. It would seem to us as if a broad, well-laid out avenue and thoroughly constructed road between Napa City and Calistoga, bordered with appropriate and beautiful shade trees planted upon either side the whole distance, would prove a most profitable investment for property-holders and form a most charming feature of what is considered by many the most beautiful valley in California.

ABOUT OUR OREGON EXCURSION, we must confess to being discouraged. From two or three dozen bright and active Patrons who anticipated going, we have not been able to secure a positive promise of more than half a dozen to go. We still hope to hear favorably of others. The fact that a session of the Na-

tional Grange in California is anticipated, in addition to the State Grange, has seemed to work against the project of making a full visitation to Oregon this year. We are glad to hear good, encouraging reports of a splendid session probably at Salem, and indeed are morally certain that not a few California Patrons will have to regret their non-attendance this year.

Troubles of a Granger.

MESSRS. EDITORS:—Last Friday, and the preceding Friday, and the Friday before that, back through a long list of Fridays—in fact to the date the "kid" was born—at precisely 17 minutes after 1 o'clock in the morning, the writer of this (who is a bold, bad man) has had his slumbers disturbed unpoetically by his wife poking him in the spine with her brawny fist with her proverbial trip-hammer gentleness, with so much emphasis that it has generally occurred to him something must be wanted badly.

In response to the spine-breaking calamity the writer always says: "Mabel, dear, what is the matter? Is there a mouse or centipede in bed?"

"No, Edwin, but Bobby here swallowed a piece of garden-hose to-day and he has one of his crying fits."

That means the writer of this must jump out of bed, take Bobby, garden-hose and all, and perambulate in the malarial air, which is always prevalent at the unseasonable hour of 1 A. M., for some miles, clad in a marvelously brief costume, consisting principally of a necktie tightly drawn to choke down the swear words, and a pair of slippers to keep tacks out of his feet. When Bobby is handed the writer Sister Thistle always consigns him to his fatherly care with "God bless you, little Bobby."

Then comes the tramp with the garden-hose annihilator, up and down, and around and across that scene of misery until the crowing of the roosters reminds the writer another day is at hand, while Sister Thistle is executing some beautiful nasal operatic airs which sound to my unmusical ear like the braying of a bay mule suffering with chronic bronchitis. There may be a great deal of fun in being a papa, but I can't see it. Babies ought to be born four years old. The trouble I am having has prevented my attending Grange of late. I have grown so thin my clothes fit me abundantly everywhere. I have such a careworn look I have not attended Grange of late fearing some brothers and sisters might construe my symptoms into domestic infelicity or take me for a ghost with an appendix of legs and arms. I attended to-day in spite of my troubles, and I was most pleased to find, as of old, the hall filled with Grangers, young and old, who seemed either to take a great deal of interest in the regular Grange proceedings or each other. Brotherly and sisterly love abounds everywhere in the Sacramento Grange. It is a charming feature, too. This fraternal feeling ripens sometimes into a deeper expression of soul—in fact I am informed seven unions are to be consummated before the National Grange meets in Sacramento—all from Grange No. 12. They are going to solve the moss-grown question, "Is marriage a failure?" I think it is from experience.

Our elderly Chaplain, Bro. Davenport, who has been ill of late, has so far recovered as to officiate splendidly to-day in his capacity. Bro. Davenport is a true Granger of the purest water. His zeal and sincere fidelity to the Grange and its principles is worthy of imitation. He is one of one thousand. No Granger, past or present, has ever found his way into the inmost precincts of so many hearts as Bro. Davenport. I say for that which he has done and is doing, let us crown our gallant brother with laurel.

We are going to have a strawberry festival May 26th,* at 12 o'clock. Come, bring your wife and babies—if you have not got the latter you can have my Bobby. I have reserved 15 seats for you and party. We all look forward with great pleasure to the advent of our distinguished guests in the autumn. We are pleased indeed to know both the State and National Granges meet here. We regret though there is not still another organization of farmers that we could also entertain, for we have ample accommodation in all respects, and certainly have the keen desire to make the stay of every Granger pleasant who is desirous of paying us a visit. Come ye Grangers all.

Sacramento Grange is neither dead nor dying. When she dies a return ticket will be bought to come back on. There has been no self-consuming boom in the Grange referred to, but there has been a steady increase of membership, an increase of activity and interest easily apparent. There has been some pruning done so that now the Sacramento Grange is in a healthy condition, needing the services of no doctor, much less an undertaker. Yours fraternally,
 Union House, May 12. EDWIN THISTLE.

*May 26th is Sunday, a date not generally selected for Grange festivals, but probably "Bobby" has upset paternal families.—Eus.

EDEN GRANGE.—We learn that Eden Grange had an excellent meeting on Saturday last. The picnic and other matters of interest were discussed. Three new applications for membership were received from young petitioners, with the understanding that more applications will soon be received.

Grange Picnics.

Despite the heavy showers and cold wind, the Rev. Dr. Barrows' able address at Hook Farm, May 14th, was well attended by Yuba City Grangers. May 2d, the Sacramento county Grangers enjoyed themselves in Beach's Grove. May 25th, Alameda and Santa Clara county Patrons, and it is to be hoped some from Contra Costa also, will meet at Alvarado. May 8th, Tulare, although troubled with the elements as their brethren at Yuba City, managed to draw Patrons from other Granges to their picnic, where they maintained that reputation for hospitality which they earned at the last session of the State Grange. At Lodi, May 9th, the San Joaquin county Patrons had a grand time, marred only by the absence of the officers of the State Grange. Other picnics have been announced, but so far we have not heard from them. We want full reports of all these good times. On such occasions Patrons from different Granges meet each other and form friendships which shall be as lofty and long-lived as the trees beneath which they assemble.

Bradley and Bradley Grange.

MESSRS. EDITORS:—The stranger in passing up the Salinas valley through the town of Bradley, on the southern boundary of Monterey county, can have no adequate conception of the extent of fine agricultural land that lies on either side, tributary to this point. Beautiful, rolling, grass-covered hills, sparsely studded with oaks, stretch away from the valley to the north and south, and but few cultivated spots can be seen from the flying trains. It is necessary to drive out through the Hames valley to the south and Indian valley to the north to form an intelligible idea of what the country really is. The former is estimated to contain, of arable, fertile soil, at least 45,000 acres, of which 6000 is owned by B. Porter; the remainder is occupied by from 80 to 160 acre homesteaders who have already laid the foundation of happy and prosperous homes. The valley was so named from a man by the name of Hames, who, before its settlement, occupied the entire territory as a sheep range. No finer wheat have I seen growing anywhere this year than I saw in this valley. It is also, so far as tested, pronounced first-class for fruits of nearly every variety raised in the State. Among the first and most enterprising settlers were Messrs. J. A. Hackett, Riewerts, Betts Bros. and a few others.

The former gentleman is also a leading spirit of the town of Bradley, in the welfare of which he has always taken an active interest. A large amount of the land adjacent to the town is owned by the Sargent Bros., and used as a cattle range at present, but it is surprising to find what a crowd of people can be gathered together at Bradley on holiday occasions. On May Day about 1000 people, it is claimed, could have been seen in Bradley.

Bradley Grange.

In passing through Bradley several times during the past winter, I had little thought that a creditable Grange could be established here, but some months ago I was assured by Mr. Hackett that they had the people here, of the right kind, and that, in his opinion, the Order could be planted here successfully; so while at Jolon I decided to drive over, being almost on my route to Cambria, and ascertain what could be done. I arrived here last Saturday, and after talking with a number of the bone and sinew of the nation, I decided to hold a meeting on Monday following, the 13th inst. The best class of farmers, their wives, sons and daughters were notified of the meeting, and at the appointed time Hackett's hall was well filled with people from the surrounding country, and upon calling the meeting to order, I explained, to the best of my ability, the purposes of the Order, its accomplishments, and some of the advantages the farmers here might derive by falling into line with their fellow-laborers in the Granges throughout the land. Rev. D. G. Wright, an old-time Patron, followed in a stirring appeal to his brother farmers to not let the favorable opportunity pass of organizing a Grange at Bradley, showing that it was a matter of interest to those having the welfare of the town at heart as well as the many advantages that would accrue in other ways. The opportunity was then offered for those who wished to enroll their names, which finally resulted in securing the signatures of 28 persons—19 men and nine women. The election of officers then followed, resulting in the selection of B. Riewerts for Master; J. A. Hackett, O.; L. Bidwell, L.; J. T. Donaldson, S.; C. H. Betts, A. S.; A. J. Wise, T.; Rev. D. G. Wright, C.; Mrs. F. Betts, Sec.; G. F. Stockstill, G. K.; Mrs. M. Hackett, Ceres; Mrs. J. T. Donaldson, F.; Mrs. J. Dukes, L. A. S. Installation will be held to-night (Tuesday), when others may unite. Will hold a special meeting to-day, 10 A. M., to exemplify the unwritten work.

Bradley, May 14, 1889

THE Secretary of the State Grange is now prepared to furnish Patrons copies containing the Constitution and By-laws of the National and State Grange and proposed by-laws for subordinate Granges for 5 cents a copy or 60 cents per dozen, purchaser to pay postage or expressage.

San Antonio—A New Grange.

MESSRS. EDITORS:—Sixteen miles due west of the promising neighborhood of San Lucas lies the Jolon district, in the charming San Antonio valley. The settlement known as the Jolon comprises a population of about 1000 souls, who, though comparatively isolated, are apparently as prosperous, happy and hospitable a lot of people as has been my fortune to visit in this State. The valley is shut off from the Salinas by a low range of wooded hills on the east and bordered on the west by a more lofty and picturesque range. In this region are many fine homes adorned tastefully by such horticultural and floral attractions as their intelligent owners have just reason to be proud of. While there is much to indicate the industry and thrift of the inhabitants, they are not of the class that believe in denying themselves all the recreation which the God of Nature evidently intended they should enjoy, nor can they be justly censured for occasional slight neglect of the field, garden or orchard when it is realized how great is the temptation to his away with gun and fishing-rod 'mid the game-haunted fastnesses and trout-bearing brooks akin to the region. The country is proving well adapted to the growth of fruit trees and vines, and, as almost everywhere else throughout this southern country, many promising young orchards greet the observant eye.

Second Largest Vine in California.

At Jolon my attention was attracted to the remarkable grapevine, said to be the second largest in California. It is in front of Mr. Dutton's store, and the stock is about ten feet high, as straight and nearly as smooth as an ordinary fruit tree, and measures an average diameter of about seven inches. The branches afford an immense arbor, and the amount of fruit it produces is well-nigh incredible. The age of the vine is less than 20 years. A few miles above Jolon, on the banks of the murmuring San Antonio river, stands the grand old Mission church of the same name. My time would not permit of my visiting the scene of early historic associations, much as I desired to do so. My self-imposed mission was to institute a Grange in this neighborhood, providing a sufficient number of good and eligible men and women could be found who were desirous of enlisting in the Patrons' cause.

Starting a Grange.

The first night I entered the valley I passed at the hospitable home of M. Boolinger, one of the most substantial citizens of the country. The next day I called at Mr. N. Paulsen's residence and made known my purpose. Without solicitation this gentleman readily accompanied me to the houses of many of his neighbors, to whom he introduced me, and then generally left me to do the talking, but occasionally putting in a timely suggestion. Our meeting was called for the evening of the following day (Wednesday, May 8th), to be held at Pleasant View schoolhouse. At the appointed hour the house was filled with people. After the close of my remarks, in which I tried to explain the aim of the Order, what had been accomplished, and some of the benefits that might accrue to them from a Grange at Jolon, and also answering a great many questions, 16 persons—12 men and 4 ladies—signed the roll as charter members, and we proceeded to elect the officers. It then being apparent that the organization could not be fully completed within a reasonable hour, it was voted to adjourn until the following evening and have a public installation. This hour of meeting witnessed a still larger gathering than before. I announced that the roll was still open for the signatures of eligible persons to be added as charter members, upon which 17 added their names, and later, 3 more signed, making in all 36—18 men and 18 women. After the installation I exemplified the unwritten work. Much zeal was evinced among the members, and I was struck with the singular unanimity of feeling that seemed to permeate both meetings. The building of a suitable Grange hall was mooted by a number, and I was assured privately that a building for this special purpose would beyond doubt be erected before the lapse of the year, as the Native Sons of the Golden West propose to institute a Parlor one long and will aid in the expense of construction.

The following are the names of the officers of San Antonio Grange for the current year: J. Alonzo Forbes, M.; N. Paulsen, O.; E. D. Bushnell, L.; L. S. Fleming, Jr., S.; P. H. Paulsen, Asst. S.; Wm. Nance, T.; Rev. J. S. McGowan, Chap.; J. M. Bolten, Sec.; Wm. Renwick, G. K.; Lulu Alm, Ceres; S. S. Paulsen, P.; J. W. McGowan F.; Sarah Cook, L. A. S.

Look out for a good report from this Grange. F. B. LOGAN.

Tulare Picnic.

Yesterday was windy and rather cold, but despite the weather there was a large attendance at the Grangers' picnic. The literary exercises in the forenoon were quite interesting. They were opened by a song from the Grange choir, after which came prayer by Rev. W. D. Williams. The remainder of the program was as follows: Declaration of the purposes of the Patrons of Husbandry, by A. P. Merritt; song by the choir, address by Dr. Williams, song by the choir, and a select reading by Geo. Roth. The well-filled baskets and their contents were

spread under the oaks, where the picnickers gathered in little knots and passed a very pleasant hour. After lunch, dancing, games and other amusements occupied the afternoon. —Tulare Register, May 10th.

San Jose Grange.

It was nearly 10:50 Saturday morning when Master O. F. Alley gave the order to close the outside gate of San Jose Grange.

S. P. Sanders of the Special Committee on the Taxation of Trees and Vines reported a conference with the Executive Committee of the State Grange not yet complete, and requested further time, which was granted.

Captain Dunn read the clause of the Constitution which granted power to the State Board of Equalization, and said it seemed to give more power than he at first supposed.

Mr. Brainard said that if the present law should be declared unconstitutional it would probably be on the ground that it worked a practical exemption of property from taxation, which was not in conformity with the Constitution.

Mr. Pettitt said he thought the Constitution did not give so much power to the State Board as Captain Dunn believed it did. It probably gave supervisory power and power to equalize, but no power to declare against any law of the Legislature.

A. Chew, a former supervisor of Santa Clara county, said he did not think the State or County Board of Equalization had any right to dictate to the assessor. They had the power to equalize valuations if they thought the assessor had made them either too high or too low. He believed Santa Clara county was now paying a larger tax proportionally than any other county of the State. As he looked upon the matter, there was no power conferred to order the assessor to disregard a law. If we had an assessor who owned a large amount of trees and vines, he might more easily see this matter correctly.

D. Coates said the calling of trees and vines a growing crop seemed perfectly reasonable. The tree had no value except as it bore fruit, and was exactly on the same basis as the stalks of wheat and corn, which were of no great value except as they bore heads or ears of grain.

Mr. Feely and Mr. Wingate expressed opinions similar to those which have been heretofore reported, and were strongly of the opinion that the law should be followed so long as it stands upon the statute-books unimpaired.

R. Fisk, Master of the Grange at San Miguel, being present, was called upon and said it gave him much pleasure to meet with the Grange. He said he had remained over the day in order to meet with them. He said a Grange was organized last March at San Miguel with 16 charter members, and they were getting into good working order. They had initiated some new members and were receiving some new applications.

Mrs. Bicknell read a paper on criminal statistics which gave the startling figures that one-third of the criminals were under 20, one-half under 21 and two-thirds under 22 years of age.

These facts seemed to show that there was something wrong in parental discipline.

She called attention to an article in the *Mercury* showing the effect of mental work on otherwise idle criminals, as put in practice at the New York State Reformatory at Elmira. Illiterate criminals were educated and prepared to become good citizens.

Mrs. Sheldon read an article which she had compiled from the Consular reports as to the methods of curing prunes in France.

Mr. Feely said he had tasted prunes prepared in Santa Clara county after a process similar to the French, and they were surely the best prunes he had ever tasted. The orchardist who prepared them claimed the extra flavor was owing to his superior soil, but it was evident the secret was in the preparation.

A question arose as to the comparative merits of French and California prunes. Mr. Pettitt said he did not believe better prunes were grown than those of California.

Mr. Brainard said he had seen a letter from a New England grocer, who said that so far he had generally preferred French prunes to California prunes, but so much progress had been made the last three years in California raisins, which were now equal to any in the world, that he expected an equal improvement in prunes, and that California fruit might in the end prove the best. Mr. Brainard said this should teach our people not to rest contented that we had the best prunes in the world, but to try to make improvements in curing and packing till all should be forced to acknowledge superiority.

It was generally agreed that California fruit was superior to the French, but the curing and packing were not yet, as a general thing, up to the French standard.

A grand picnic of Santa Clara county and Alameda county Granges has been arranged for Saturday, May 25th, at Alvarado. Tickets for the round trip will be 75 cents, and there will be a good time if all the expectations are realized.—*Mercury*.

TEMESCAL GRANGE meets at 2 P. M., Saturday, May 18th. Matters relating to the picnic will be brought forward. A large attendance is particularly desired. All sojourning Patrons are invited to attend.

Bro. I. C. Steele at Gilroy.

MESSRS. EDITORS:—In obedience to the call for help to reinstate Gilroy Grange, I attended their meeting on the 11th inst. State Deputy Roache arrived before me and his cordial greeting was timely and very grateful to me, as I had never visited Gilroy Grange before and knew none of its officers. The Master was not present and the attendance was not large. There were no visiting members from any other Grange, but the members of Gilroy present were earnest, thoughtful people, anxious for instruction, who will undoubtedly revive the work if encouraged and assisted as they should be by the officers and members of the State Grange. The Worthy Overseer, Bro. Thomas, presided and showed the true spirit of a good Patron and a good officer. He lives ten miles from the hall, but says he proposes to stay with the Grange. They meet in the Masonic hall, a nice, large, commodious hall. After the regular business was disposed of, Bro. Roache rendered the unwritten work to perfection. He has a happy faculty for imparting instructions. He also spoke to them of the objects of our Order and the privileges of members, of the results already attained, and pointed out the power of united effort in the accomplishment of a worthy object. I gave them such additional information and suggestions as seemed suited to the occasion.

Four applications for membership were received and committees appointed, and it is expected that a large class will be ready for initiation in the near future.

The late rain did considerable damage to hay in this section. About one-half of the hay crop had been cut. But the benefit to other crops will be fully equal to the damage done to hay.

I staid in Watsonville over night on my way here, and was informed there that the rain did much more good than harm. Along the coast in Santa Cruz and San Mateo counties the rain did much good and very little harm, as most of the crops are late and the rain was just what was needed. The crops are generally good, but the hand of the skillful husbandman is notable in the response of Nature to his better methods.

Yours fraternally, I. C. STEELE.

Gilroy, May 12th.

Gov. Waterman and Joaquin Miller at Alvarado.

It is highly probable that the picnic of Temescal, Elen and San Jose Granges at Alvarado, May 25th, will be honored by the presence of Gov. R. W. Waterman. In a letter to Secretary Dewey, dated May 13th, he says:

My motto has ever been, "Business before pleasure," but if I can get off for a day from the prison investigation, or if they can spare me, I will try and join your party. Send me full directions how to reach the grounds. If possible, my folks will come with me.

The following letter from the Poet of the Sierras also looks promising:

My Dear Dewey:—I am going to try hard to be with you. I want to meet my friends, the people. I want also to see the stout-hearted Governor; a big man in all ways and a sterling friend of California. I want also to see you.

I can only say *certainly* if mother is strong enough we will be with you. Yours,

JOAQUIN MILLER.

Oakland, Cal., Sunday, 1889.

San Joaquin County Grange Picnic.

MESSRS. EDITORS:—Thursday, May 9th, was the day set for the San Joaquin county Grangers' picnic at Lodi. The day was all that could be desired. The grounds were in excellent condition, the heavy showers of the preceding week having laid the dust and freshened the grass. Although a somewhat busy season with the farmers, the gathering was well attended. Lodi was out in full force. Many were there from Woodbridge, Elliott and Washington Granges. Stockton and vicinity also were well represented.

Promptly, at some time between 9 and 10 o'clock, the procession formed at the hall, and headed by the band, marched to Villinger's Grove, some 200 yards distant. After the opening song by the Grange, Bro. J. D. Hoffman, president of the day, introduced Dr. James Caples of Elk Grove, whose remarks were attentively listened to. Bro. Hoffman read a letter from D. Flint regretting his inability to be present. All were sorry to learn of the illness of W. S. M., W. L. Overhiser.

The following literary program was well rendered: Recitation, by Miss Birdie Childs; humorous recitation, Miss Mary Ellis of Woodbridge Grange; recitation, Mary McIntosh, Stockton Grange; song, by a trio from Stockton Grange; recitation, by Sister Merrill, Stockton Grange; select reading, by Sister W. D. Ashley; song, by the Grange, Sister N. E. Alling; organist; recitation, Miss Jessie Woods; recitation, "How Mother Fixed It," Prof. C. B. Newton, Stockton Business College; encore, "The Tay Bridge," song, by Master Alling; song, by the Grange; selection by the band. The meeting dismissed and Patrons and friends gathered in groups of from 4 to 12 under the spreading trees and bushes to inspect the knives and forks they had brought with them. The inspection service being duly concluded, dancing was be-

gun; foot-racing and various sports filled the afternoon, all being concluded by a grand ball at Stoddard's hall in the evening. N. V. W. Stockton, May 12, 1889.

The Parting Word.

Dear Sir and Brother:—Your "written on the fly," May 8th, at hand. This is about the last I think to write before I leave. My head and hands have been full the last few days, and I am in no fit condition to answer your kind and generous letter. I cannot compose myself to do it justice. Friends are calling on us every few minutes and congratulating us, with the best of wishes. I wish I could see you and Sister Dawey and exchange the warm, fraternal grasp once more. I will correspond with your paper the best I can. Send your papers to headquarters California exhibit, Paris Exposition. Run the Grange the best you can, and when I return I will help you out the best I can. Your letter of this morning, 9th, just at hand. Thanking you for all your kindness to me and mine, I must defer until I am off on my trip. Fraternally yours, DANIEL FLINT.

Sacramento, May 9th.

[Accompanied by his faithful wife and James Hutchison, a leading nursery and seedsman of Oakland, our Worthy State Lecturer traveled toward the rising sun on the afternoon of May 9th, the date of receipt of the letter so promptly answered despite his numerous cares. Their departure was the occasion of many good-byes and expressions of good-will for a *bon voyage* and safe return. To these verbal ejaculations, we add ours in print.—EDS.]

A Forward March.

MESSRS. EDITORS:—March Grange had a meeting to-day with a very good attendance, and after talking about one-half hour, they concluded to hold on to the charter and go ahead with the Grange. They elected a set of officers for the year, and in two weeks from to-day I will go over and install them and set them to work. All of the members that were there paid up all of their back dues, as you will hear from the Secretary, in the shape of State Grange dues. I think that March Grange has taken on new life now and will be a live Grange from now on. I hope so. I shall do all that is in my power to help them on the road to success. The following are the officers: M., J. C. Porter; O., W. W. Wilber; L., Sister N. L. Porter; S., E. A. Nois; A. S., W. B. Reynolds; C., Kate Wilber; T., R. K. Stevenson; Sec., Sister S. T. Nois; G. K., B. F. Stevenson; Ceres, Sister N. A. Stevenson; P., Sister M. J. Stevenson; F., Annie Gilfratic; L. A. S., E. C. Reynolds.

You will get a further report from the Secretary, so I won't trespass on your time any further. Yours fraternally, B. F. FRISBIE, Yuba City, May 11th. Deputy Lecturer.

Resolution of Thanks.

WHEREAS, To discover an oasis in the arid desert of human selfishness lightens the hearts of all true lovers of their race far more than does the sight of the gushing fountain the weary traveler in the desert; and

Whereas, An oasis has been discovered in the persons of Worthy Past Masters Flint and Steele, who, through their goodness of heart, left their large and extensive business, their beautiful homes and loving families, and, without fee or price, came on a long and tiresome journey to benefit us; therefore be it

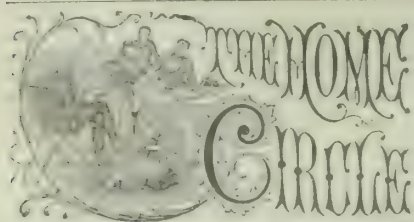
Resolved, That Watsonville Grange most truly and sincerely appreciates their generous and brotherly act, and, with unanimous accord, thanks them for the same. A. P. ROACHE.

Watsonville, May 4, 1889.

CHARTER MEMBERS.—The following is a list of the charter members of San Antonio Grange, No. 286, Jolon district, Monterey Co., organized May, 1889, by F. B. Logan, Deputy: N. Paulsen, L. S. Fleming, T. H. Paulsen, W. Weferling, J. M. Bolten, Wm. Renwick, J. S. McGowan, Gottlob F. Roth, E. D. Bushnell, J. Alonzo Forbes, W. A. Baker, C. R. Hill, Wm. Nauer, G. F. Smith, Joseph Walker, Henry Loeber, W. A. Nauer, R. T. Forbes, J. N. Moss McGowan, S. L. Cook, S. L. Paulsen, Lulu Alm, Dora Johnson, Wm. M. Johnson, Mrs. Wm. Nauer, Clara Smith, Regina Roth, Maggie E. Smith, Emma Weferling, Mattie Smith, Lydia Fleming, Louisa Wentlock, Mrs. Anna Paulsen, Mrs. Ida M. Walker, S. S. Hill, Miss Margaret Forbes.

A LETTER from Mrs. E. J. Stephens, Sierra valley, is full of thanksgiving on account of the recent snow, which, had it not melted as it fell, she thinks would have been four feet in depth. Before it came, everything was as dry as midsummer, little water in the streams, wells low, and bad prospects for farmers, mill-men and miners. In the mountains about six feet fell, and now all are happy. She writes that the Grange proposes to celebrate with a picnic, but, unfortunately, she forgets the important part—the date—so we cannot give it to our readers.

ACCORDING to the Toronto Grange Bulletin, Canada also is about to be afflicted with a binding twine trust. All the more need that American farmers should smite it for all time. If we do our duty there will be too little of the trust for burial by another year.



The Evolution Theory.

Some anonymous writer lately sent the following verses to Rev. M. J. Savage:

So you came from a monkey, you tell me?
No kinsman of mine then, that's flat;
But 'tis few who can grapple with history,
And trace such a birthright as that.
But, indeed, I'm not over ambitious,
And haven't the slightest desire
To take for my mother a monkey,
Or call a gorilla my sire.

It strikes me that somewhere in history
Recording creation's great plan,
We have it decided and certain,
"God in the beginning made man."

A man, not a monkey, remember,
But a being of beauty and shape;
No gorilla, or ugly baboon,
Or pitiful, chattering ape.

You may deem me both simple and foolish,
But in the beginning I see
God made man in His own upright image,
And that is sufficient for me.

Yet, philosophy, ponder the mystery,
I begin where creation began;
And there, without ape or gorilla,
"God in the beginning made man."

Mr. Savage replied in the same meter:

You are very sincere, madam, doubtless;
So have been people wiser than you;
And yet they have piously sneered at
What afterward proved to be true!

The poor, abused Bible has often
Been turned to a cudgel, whose blow
'Twas hoped would give a quietus
To all Moses chanced not to know.

Galileo's new moons were delusions;
The earth did not move, and was flat;
And every new wonder of knowledge
Was impious, false, and all that.

But, spite of the folly thought pious,
The truth, not of man, but of God,
Still breaks through all clouds, like a sunrise,
Bright alike in the star and the sod!

One line seems to you all conclusive,
"God in the beginning made man;"
But, pray, can your wisdom inform us
Just when God's beginning began?

Can you tell me why 'tis not as noble
To lead life on, up through the ape,
As out of the dust, dead and formless,
The great human wonder to shape?

Sure, the ape is God's work; so, contemptuous,
To sneer at one part of his plan
Is hardly the way best to honor
Him who, by some process, "made man!"

When I hear foolish people whose title
To decide on so mighty a matter
Is only a prejudice pious,
I fancy I still hear the "chatter"

That hints the ape theory strongly,
But only goes far to suggest
That still there are cases remaining
Where progress has met with arrest!

Madge and Her Lovers.

[Written for the Rural Press by I. H.]

Little wonder that their name was legion, for Madge was the happy possessor of all that make a woman attractive—youth and beauty, loveliness of character, and last, but scarcely least, a comfortable income of her own. Yet the years were passing by and she remained in her uncle's house "in maiden meditation, fancy free." Not one of the would-be suitors had been able to pass a certain charmed line on the other side of which she stood unapproachable; and certainly no one of them all had ever awakened in her heart an emotion warmer than friendship.

Would it always be so? Her aunt, thoroughly convinced that no woman would fulfill her destiny if she failed to become a wife and mother, mildly remonstrated at times, but to no purpose.

"Do you want to get rid of me, Aunt Ellen?" Madge would say in coaxing tones; and the answer would be a vehement denial of any such desire.

"I should like to keep you always, dear, just as you are, if I were thinking of myself alone, but a woman is happier with ties of her own, husband and children."

"Not unless she marries the right man, Aunt Ellen, and as he has not appeared, we will wait for him. I am sure we are very happy as we are."

Then Aunt Ellen would sigh. Time had been when she had hoped to see Madge the wife of her only son; but no such idea had ever entered the heads of the boy and girl brought up from childhood in close companionship. Guy had married his cousin's most intimate friend, greatly to the satisfaction of Madge her-

self, and his mother's pet scheme had come to naught. She had never mentioned it to any one, and the disappointment she had kept to herself, but she sighed over it still at intervals, as we all do over the "might have beens" of past days.

Lately there had come to the neighborhood a young man whom Aunt Ellen had watched with considerable interest, wondering if he might not prove to be her niece's fate; but as yet he had given no sign, his invalid mother seeming to absorb all his interest. The mother was a most charming woman, highly educated, and gifted with a sympathetic nature that attracted Madge at their first meeting. A warm attachment sprang up between them at once, and Madge's pony was to be seen standing at Mrs. Seymour's gate two or three afternoons in every week.

But Philip—he was a secondary consideration. Sometimes he was present; oftener he was out looking after his work, and his presence or his absence seemed to make no difference to Madge. Certainly he was a model son. All the neighborhood agreed on that point, and it was impossible that he could be the constant companion of such a mother without growing to be like her in many respects. He had traveled with her, he had read with and to her, he had shared all her interests; but he had not her impulsive nature. Quiet and reserved, it would take a stranger some time to understand him, and Madge had not yet found him out; while to him she was only a very nice girl who was always welcome because his mother enjoyed her society and was not lonely without him when she was there. Not yet was he numbered among her lovers.

A day came, however, which revealed to each of them something of the other's inner nature. It was the month of May, the picnic season of California's young people, and in a wild and beautiful glen there was to be a gathering of all the neighbors. Madge was in the kitchen deep in the mysteries of cake-making when her cousin's wife appeared.

"I have come to carry you off, Madge," she said; "so as soon as that cake is in the oven you must go and get ready."

"Indeed!" exclaimed Madge. "And pray what is to become of the cake after it is in the oven if I go and leave it?"

"Oh, mother will attend to it, I am sure; I really must have you. I have just had a letter from John, and he will be out this evening and bring Hugh Sheldon with him. I can't entertain them without your help."

Madge laughed. "That is the state of the case, is it? Well, indeed I don't know why I am bound to entertain John or Mr. Hugh Sheldon either; let them entertain themselves."

"Come now, Madge, don't be unreasonable. You know if you are there, everything will go right; but if you are not, I will be in a perpetual flurry with the cooking and the baby and everything to attend to, and no one to put a flower in the vases or to see that the tablecloth is laid straight."

"Oh," said Madge, "that is putting quite a different face on the matter. If you want me to help you, Susie, I will go with pleasure; but as for your young gentlemen, I think they can do well enough without me."

"John thinks otherwise, poor fellow," said Susie, who was his sister.

"John is a foolish boy, as I have told him to his face, and shall tell him again if he provokes me. The woman he will really love one day is probably learning her multiplication table now, if indeed she has gone so far."

But neither of them said anything of Mr. Sheldon. Truth to tell, Madge rather liked Mr. Sheldon; he had paid several visits to her cousin, and without making himself at all obtrusive had shown a marked interest in Madge herself. He was a man of about thirty-five and was already known as a very promising lawyer in a large country town. There was something in his manner, a certain touch of authoritative-ness, which rather pleased the girl accustomed to the obsequious devotion of a host of younger men. She could never care for any one who would be her willing slave. Then Mr. Sheldon's conversation was interesting and suggestive; he neither indulged in idle gossip nor senseless compliments. On the whole, Madge was pleased to know that she would meet him again, and felt that he would be an acquisition for the picnic.

Aunt Ellen readily undertook to bake the cake, and Susie carried off her ally in triumph, intending to keep her for several days. Madge was always a welcome guest in her cousin's home; she helped Susie in all her household cares, amused the baby, roused up Guy, who was too apt to bury himself in his farm duties, and brightened the house with all the little winning ways so natural to a woman care-free and light of heart. No wonder that she was wanted when visitors were expected. John Taylor, a mere boy of twenty, who was one of her open adorers, was enraptured to find her present when he arrived, and Mr. Sheldon's rather grave and unreadable face lighted up unmistakably.

The day of the picnic came, and as a matter of course Madge was invited by Mr. Sheldon to ride with him, as he had his own buggy and a fine, spirited young mare. She consented, but with the inward determination to be entirely free when the picnic grounds were reached.

Mr. Sheldon had been to country picnics before; he knew the common custom by which a gentleman escorting a young lady may monopolize her entirely without infringing upon the public sense of propriety. Did he hope so to have Madge all to himself and to enjoy showing

to others a certain right of possession? If so, he was disappointed; for Madge was everybody's friend and there were crowds of people whom she was anxious to see and speak to. Certainly she did not neglect the stranger who had come with her; she introduced him right and left; she set him to work putting up a swing for the children; she came to him now and then with a smile and a few bright words. But she seemed to be everywhere at once, the healthy human interest of her young heart overflowing to all sorts and conditions of people; now she was listening without weariness to an old woman's account of her various ailments; then discussing serious questions of poultry-raising with another, and again enjoying a game of any kind with the children, to whom she was almost an idol.

The lunch hour brought her again to Mr. Sheldon's side, and showing no chagrin, he exerted himself to entertain her. Never had he seemed so kind, so obliging, so interesting. Madge was quite delighted with him. Yet true to her nature, after a little while she excused herself.

"Mr. Sheldon," she said, "I am going to take the baby from Susie and send her here; please see that she gets her lunch comfortably," and she was gone.

The baby was cross and fretful, as babies are apt to be in a crowd, and the mother was tired and warm. "Now give him to me and I will put him to sleep," said Madge; "you know I can always conquer him."

The little fellow, glad of a change, held out his arms, and telling the mother to be quite at ease about him, Madge carried him off. She found a cool, quiet spot under the shelter of a large rock, and there she sat down and sang him to sleep. It was very pleasant to be alone for awhile, and Madge was in no hurry to get rid of her little charge; she sat still, enjoying the soft murmur of a stream near by, the waving of the leaves in the gentle breeze, all the quiet sights and sounds that soothe the heart to rest in Nature's solitudes. Presently she heard a footstep, and looking up, she saw Philip Seymour. With a smile and a warning gesture, she forbade him to speak, and seeming to understand, he passed on, but immediately returned with a buggy-robe and dextrously arranged a bed for the sleeping baby.

Madge was by this time glad to lay the child down. As she did so, patting him softly to keep him from waking, voices from the other side of the rock broke the silence.

"Ha! Sheldon," said one, and it was the voice of a saloon-keeper in the neighboring village, a man whose reputation was very low—"it seems you don't get on very fast with the heiress; she rather threw you off this morning."

"Jim," said the other slowly, "did you see the mare I drove to-day? I'd a good deal rather control a creature like that than one of your quiet kind. Wait awhile. I'll manage her yet; she's worth the trouble."

There was a coarse laugh. "Well, I wish you luck."

Madge bent her head over the sleeping baby; the hot blood rushed to her cheeks, the indignant tears to her eyes. This was the man she had begun to like! She looked up. Philip Seymour stood beside her; there was something in his face that gave her an instant sense of protection and help.

"Will you take me home?" she said, holding out her hand.

"Gladly; but first let us find your cousin."

And just then Susie made her appearance in search of her baby. She saw at once that there was something wrong, but Madge said simply: "I am going home; please tell Aunt Ellen. Mr. Seymour will take me."

"But, Madge, what will Mr. Sheldon think?"

"It does not matter what he thinks, now or at any other time," said Madge as she turned away.

Philip Seymour made no remark; he led the way to the spot where he had tied his horse, helped Madge into the buggy and drove off in silence.

Fairly out on the road he turned to her. "Let me take you to my mother," he said; and Madge gladly consented.

Six months afterward Philip Seymour and his wife were watching the sunset from the deck of an ocean steamer. They were on their bridal tour, and naturally enough were in the habit of recalling certain happy memories.

"Philip," said Madge, "do you remember the picnic last May?"

"The picnic I went to only to take you away? Yes."

"Only to take me away from all the rest of the world, Philip," she said softly. "From that day I knew you as standing alone, unlike all other men, caring for me only for myself."

"Dear little wife," he answered her, "I had a hard struggle with myself when I did not knock that fellow down and give him his deserts; but now I think we should have sent him a box of wedding cake inscribed 'With best thanks.'"

A minister was taking a walk with his best girl in Woodland the other night, and young Toadstool followed close at his heels. "Mr. Toadstool," presently said the minister, "don't you know that two is company and three a congregation?" "Oh," spitefully snickered Toadstool, "I know that. Three is generally a durned big congregation wherever you be."

The worst form of "writer's cramp" is being cramped for funds.—*Boston Courier.*

Going to School in W. T.

EDITORS PRESS:—Coming from Oakland, Cal., where the school system is so complete, and where the genial climate permits the children to attend school nearly every day of the ten months comprising the school year without serious inconvenience, I have been deeply impressed with the many hindrances in the way of the "coming man" of Washington Territory.

Owing to lack of school funds, many districts can have but the three months' school required by law in order to hold the district, \$90 being the amount allotted to the small district, the teacher's salary being \$30 a month, less than that of a day laborer, and the teacher doesn't "board round," so his living expenses are all borne by himself. The laboring man has the advantage over the teacher of his board.

Then the rains and the roads, if roads there are, possibly only a cow-trail through woods and over wide stretches of peat swamps.

I have not traveled over the different sections of the country and will attempt to give no information respecting any other district except the one in which I live.

During the dry season the children may be needed at home, boys, and girls in some instances, assisting in the planting, hoeing and harvesting, and in clearing new land, for I have not seen a man with his 160 acres cleared, or even the half of it. Of course this brings the school session in the rainy season, when the prairies are often flooded.

Girls wear gum boots and "wade in." One term a girl of fifteen living nearly two miles distant frequently "packed" her little sister on her back over half the distance, herself wading through peat and water a foot deep, and in spots even deeper; in fact in places where the cattle tramp over it, it seems as if there were no solid foundation under it, and the only hope is to scramble out of such spots as expeditiously as possible.

A rainy morning has no deterring influence on a Washington Territory boy or girl. In one respect our rains are less disagreeable than those of California. They are seldom accompanied by wind, and with gum boots and umbrella, one doesn't mind a straight down-pouring rain.

Many of the schoolhouses are of rough logs, minus blackboards, maps, charts and other necessary appliances for the best success in teaching (our schoolhouse is quite modern); but these pioneer school arrangements are gradually being superseded by a better state of things, and still better things are in store for us when we fully become a State. It may be owing to some of these difficulties attending school, together with months of hard work during the long vacation, that give the children so keen a zest for study. I have taught in Maine and California, but never in several years' experience found children so eager for study as here. Lessons are never a task, but like a delightful game in which each is eager to excel.

The opening of school is joyfully anticipated, and its close is as deeply deplored. Will not these rugged experiences and deprivations develop in our youth an independence and nobleness of character not unlike that of the sturdy pioneer of the old New England States?

Washington Territory.

J.

Why They Had No Paper.

Stranger—So you have no paper in this town?
Native—No sir. We did have one once, but it wasn't run right, and we was glad to get rid of it.

"What was the matter?"

"Wall, in the first place, the editor didn't allers treat folks right. He'd call one gal young and handsome, and slurringly refer to another gal just as pretty, leavin' it ter be inferred she wasn't pretty enough ter be called handsome, and she might be as old as Methusalem. Wall, that made trouble, an' after that, when Farmer Hayseed and Farmer Fallow both left the same sort of stuff on his table, he gave Fallow two lines more than the other."

"Yes."

"Wall, things kept gittin' wuss and wuss, until General Oldman up on the hill died, and got half a column obituary notice, all about the Mexican war and things, while my uncle Jake, just as good a man, who never left the farm, but 'tended to his duties like a Christian, an' was a pillar in the church, got only a quarter of a column. You better believe, me an' my friends felt hurt."

"I suppose so."

"Wall, we begun inquireing around about this editor, and we disikivered that while he was chargin' as fer every little two-line advertisement we put in, he was printin' a hull column about his job office fer nothin'. That raised a breeze, I tell you."

"No doubt."

"After that things came ter a head. The feller commenced stoppin' the paper on them wat didn't pay their subscriptions. Then we 'rose in our might an' druv him out o' town."—*N. Y. Weekly.*

AN experienced lady observes that a good way to pick out a husband is to see how patiently the man waits for dinner when it is behind time. Her husband remarks that a good way to pick out a wife is to see whether the woman has dinner ready in time.

YOUNG FOLKS' COLUMN.

The Discontented Roses.

A Fairy Story.

[Written for the Rural Press by M. B. D.]

"Go-ling! Go-ling!" tinkled the golden bells of fairyland, rung by a sprite who had been asleep in the heart of a tulip. The curtains of mist folded together, revealing the Queen upon the throne with all her ministers and maids of honor around her. This court was held because two fairies were discontented.

Now they appeared trudging along through the mud under their toadstool umbrellas, for it was raining and not even a sparrow would carry them in such weather. When they arrived at court, Red Rose spoke first.

"Gracious Queen," she began, "I have ever held up my stems of glowing flowers, and kept their golden hearts well brightened and perfumed. I have shaded the trembling maiden-hair, my thick leaves grew so broad and flourishing; but now I have lived in the rural garden so long that I am weary of its quiet and desire a nobler life."

The Queen replied: "You may prefer a livelier place, but there is none more noble than yours in the rural garden nook. What has made you discontented?"

Joining Red Rose, White Rose said: "One afternoon a butterfly came coaxing around my fairest blossoms, and told them they were not half so beautiful as the rich hot-house roses which are so beloved by our Queen. He explained that even the sun and dew might not fall upon them. They go to the grandest balls and parties in the world and hear the gentlest words and sweetest music that mortals ever hear. While he talked, airily fluttering about on his long wings, the blossoms drooped and scattered their petals down until most of them floated upon the spring where the children come with their pails for water. The very next time they skipped down the hill they stopped beside me.

"Oh dear!" said Bess, "those roses are all fading. What shall I do for a bouquet at the concert?"

"Don't you care a snap," said Frank; "I'll get you much finer flowers from Meador House to-morrow; so come on," and he dipped up his bucket of water, scattering spray over my petals until most of them sank. Bess filled her little pitcher, and when they left my last petals fell, and even the buds withered from jealousy. There was not a twig which did not see its own ugliness in the mirror which the spring made below."

"Were you ever discontented before?" asked the Queen.

"No, no!" they answered together; "but we did not know what a humble place we had until the butterfly told us. We were happy when Frank and Bessie praised our flowers or put them in vases for the parlor and for the dining-table, and often Bessie wore them in her hair or at her belt. We heard the kind words which the family said to one another when they thought no one was near and did not know that we were fairy flowers."

"So," the Queen remarked, "you let that summer idler, the butterfly, discourage you in your duty by a few vain words. Well, I, who know the trial you would find living in a hot-house, advise that you both go back to your bank beside the spring. But if you will not, what shall I do for you?"

"I would like to be a grand Marechal Niel rose, dear Queen; they are so fashionable and are so much admired," said Red Rose.

The Queen sighed as she granted her request.

"Now, little White Rose, it is your turn."

White Rose trembled. The dew hung heavy on her leaves, and she felt homesick for Bessie's songs and Frank's cheerful whistling. She wanted to see the spring again and the linnets that nested in the almond tree.

"I will go back to my home, dear Queen, for I love its quiet joys more than all my dreams of splendor."

She was scarcely settled upon her old bank when Bessie's father came down the hill leading Bessie by the hand.

"So your rose is fading," he remarked. "Ho! ho! it has overbloomed itself, I guess," and taking his pruning-knife, he trimmed off the branches. "Next year it will bloom out all the better for a little clipping now," and he fastened the stalk up by a trellis, loosened up the soil about the roots, and they went away with a word of regret for the red rose.

The children took good care of their favorite flower, and she was happy in her quiet home where the larks sang all day and the honey bees were her constant guests.

Red Rose changed to a young slip and was planted in a hot-house bed. Being accustomed to the dancing rain and free breeze of the hills, she found the hot air oppressive, and wearied of the dainties which were her only food. The gardener kept nipping off every bud and leaf until she was almost discouraged, for she had nothing else to do but put on buds and leaves. No tender ferns nestled at her feet, and the roses, her companions, were not modest like her old friend, but vain and scornful, holding up their rich velvet blossoms like crests of pride.

At last the gardener let one little bud swell until it burst its calyxes and unfolded its full petals into a glowing, many-leaved chalice of

fragrance that fairly trembled with its own beauty. He cut the rose from the stem one day, and, remarking that the shrub was a weak bloomer, pulled it up by the roots. A florist pierced the heart of the rose with a wire and bound it to some fern leaves. Then it was sent with a rare bouquet to a lady who stood before her mirror, dressed in rustling silks, and who wore gems that glittered like dew around her neck and in her ears. She glanced at the bouquet critically, and choosing the most beautiful rose among them all, fastened it in her glossy black hair.

One glad thrill of triumph the rose felt in her high place among those silken tresses, then the lady said to her maid: "Give me my pearl comb, Nettie; this rose is too bright. My cheeks look almost pale beside it."

Nettie tucked the rose carelessly into the bouquet and fastened the whole rich cluster upon the lady's breast. Rose was sick at heart. The cruel wire that bound her made her droop, and her place was so insecure that she trembled every moment. They went to a brilliant party where the lights and music and gay throngs of people were bewildering.

Poor Rose grew faint in the whirl of the dance, but pride kept her up until she heard a gentleman say: "Miss Miller is the loveliest lady here; see her—that fair girl who wears the red roses."

Rose looked and saw a young lady, who had a face like Bessie's. She longed to be beside the cool spring and see Bessie's lovely eyes once more, but she was too weak even to hope. She fell to the floor and lay there unheeded and forgotten.

The next day a maid swept her into the dust-pan and a grimy ashman took her off in his cart with the rubbish of the house. She shrank from such coarse things and fell to the street, where a wicked little waif found her all dusty and withered. This poor boy, who had never been taught to be good and honorable, was scarcely less grimy and rough than the old ashman. Picking up the rose with a chuckle, he rubbed her faded leaves into some poisonous tobacco weed and rolled them into a paper, where he began to burn them slowly.

"This is a nobby cigarette, Bob," said he to a companion, "high-toned rose, you know; try a whiff!" and he winked as he handed the little roll to his grimy friend.

With a last sigh for her old home and bright, good Frank and Bessie, the poor Rose perished in the poisonous smoke and turned to ashes.

The White Rose far away in the sunny hills put on her fairest blossoms every season, rivaling with their fragrance and freshness the summer-tide's most gracious offerings of lilies and bells and trailing vines, all starred with rainbow-colored cups of bloom. Bessie rewarded her constancy and goodness a thousand times by wearing the roses in her hair and on her breast, and cherishing the sweet unfolding buds even in her own little chamber where they could catch her first soft glance when she looked from her pillow in the morning. After long years she crowned the rose with pride and joy by making a bridal wreath of her fair blossoms and wearing them with her beautiful bridal veil.

A Coursing Match.

A Rural Press reporter recently witnessed a coursing match on the plains of Fresno county, near Barton's vineyard. The contestants were a fine greyhound, a shepherd dog and a Scotch terrier which were out on a hunt, accompanying a party on a pleasure ride. A large hare was started and the chase commenced. The greyhound followed the hare in a changing, circuitous route, while the shepherd dog and Scotch terrier cut crosslots. After a five-minutes' run, the greyhound caught the hare and the shepherd dog took hold with him, each pulling in opposite directions, while the smaller one looked on without entering into the contest of securing the prize. Envy and jealousy seemed to be the ruling passion with the larger dogs, and each engaged in a hard battle. While this struggle was going on, the Scotch terrier picked up the game and took his departure, leaving his comrades to fight their battle. The lucky dog had gone but a short distance when a Chinaman took possession of the hare, and "so the poor dogs had none."

An eccentric Boston character, an itinerant mender and sharpener of scissors and knives, notwithstanding the burden of 89 years, still perseveres jovially at work, indifferent alike to the advance of time and the evils commonly associated with old age. He is of a sunny disposition, enjoying a joke even at his own expense, and is given to make light of his own years and ordinary vicissitudes. The other day he met an acquaintance, who said: "Well, Mr. —, I thought Death would have captured you before this." "Sh!" came the venerable itinerant's answer; "don't speak so loud, for I think Death has forgotten all about me. And I wouldn't have you remind him for the world."

A HUMANE SOCIETY FORMED.—The Santa Clara County Society for the Prevention of Cruelty to Animals was organized at San Jose on the 29th ult. with the following officers: Pres., Jos. H. Scull; V. P., Dr. I. W. Snowden; Treas., Mrs. R. H. Schwartz; Sec., J. E. Brown; Trustees, Prof. J. Manzer, Rev. N. A. Haskell, Rev. B. F. Farquhar, Mr. Schrimpton and F. R. Shafter. District Attorney Burchard is actively interested.

GOOD HEALTH.

Poisoning the Baby Unwittingly.

It is probable that many parents kill their infant children, without meaning to do so, from ignorance of the dangerous nature of popular sedatives and soothing syrups; while many more, without knowing what they are about, form the dreadful opium habit in their babies before the latter are weaned.

In connection with this subject, Taylor's Medical Jurisprudence, 1880, says: "It is important for a medical jurist to bear in mind that infants and young persons are liable to be killed by very small doses of opium. They appear to be peculiarly susceptible to the effects of this poison. The syrup of poppies, paregoric, elixir, Godfrey's cordial, Dalby's carminative and a variety of soothing syrups owe their narcotic effects to the presence of opium. One-sixtieth part of a grain of opium has thus destroyed life in an infant. Two children, twins of six weeks, died recently from the effects of a teaspoonful of Godfrey's cordial, given to each. This dose of cordial equals three-tenths of a grain of opium. Mrs. Winslow's soothing syrup, called also 'Quietness,' a compound resembling syrup of poppies—two doses of this caused the death of a child 15 months old, with the usual symptoms of narcotic poison. An analysis of this syrup showed that an ounce of it contained one grain of morphia with other opium alkaloids. It is not surprising that it should prove fatal to infants in small doses. It has been remarked that most of the poisoning by opium proves fatal in from about 6 to 12 hours. This drug in all its forms is especially fatal to infants. They die rapidly from very small doses. I have no doubt many a parent who has noticed the prolonged stupor following a dose will realize how close to the border line he has been. Extreme caution in the use of this drug is essential, not only in the young but the aged, and with those who indulge to excess in alcoholic beverages."

H. C. Wood, in his work on materia medica, published in 1886, cites a case where a few drops of paregoric proved fatal in a child aged nine months. He particularly admonishes against the use of Dover's powder for the reason that owing to the improper admixture of the opium with other drugs entering into its composition, no reliability can be placed on a dose for uniform strength.

PHYSICAL EFFECTS OF ALCOHOL.—But if the physical results of alcohol are varied, much more diverse are its effects upon the mental and moral nature of man. Indeed, they are as multifarious as man himself. One general classification only is possible. Certain individuals (fortunately the small minority) are always pleasantly affected by stimulants. Each successive dose arouses in them increased exhilaration, and when intoxication supervenes, their sensations are delightful. Their every sense is exalted; they fancy themselves endowed with every gift—with all power and possession. As is often remarked, these are generally men of the most brilliant intellect and of the most charming moral qualities. Once led captive by alcohol, these unfortunates seldom have sufficient power of will to refrain from renewed indulgence. No moral considerations avail to restrain them, and with few exceptions, they yield wholly, finally and fatally to the tempter. For such men total abstinence is the only refuge. * * * Upon the large majority of men the effects of alcohol taken to intoxication are clearly and essentially different; although at first exhilarated, repeated indulgence brings drowsiness, dullness of apprehension, anaesthesia, vertigo, nausea, and vomiting—in short, bodily and mental symptoms which are excessively disagreeable. Of this class very few become drunkards, and those are men to whom anaesthesia becomes desirable as a temporary refuge from bodily pain and mental distress. Herein lies the sole explanation of the fact that the proportion of drunkards to moderate and habitual drinkers remains so small.—Dr. W. S. Searle in *North American Review*.

CARBOLIC ACID IN INDIGESTION.—In a recent number of the *Practitioner and News*, a correspondent says: "I have just passed through a severe attack of indigestion accompanied by colic, pyrosis, food eructations, epigastric weight, uneasiness, etc. Alkalies, muriatic acid, pepsin and pancreatic extract failed to give relief. Seeing your note in the *American Practitioner*, on the use of carbolie acid in acid eructations, etc., I took, with almost instant relief, two or three drops of the acid as soon after food as regurgitation, distention or acidity occurred. One dose was usually sufficient. On two occasions only was a second dose required. This I took half an hour after the first. I dropped the acid on a bit of fresh bread and rolled the mass into a pill. Since my own case I have given it in a similar case, with like good result. Here I added a scruple of carbolie acid to one ounce of glycerine. Dose, a teaspoonful."

CURATIVE POWER OF MAGNETIC IRON ORE.—Mr. W. H. Lake of San Bernardino recently discovered what promises to be a veritable mountain of magnetic iron ore. Soon after his discovery he, in company with two assistants, went up to the mountain to develop the ore.

Mr. Lake, who is 63 years of age, was so crippled with rheumatism that his joints were distorted. After being there four days, he made a singular discovery. The iron seemed to be permeating his system and acting like a tonic of the tincture of iron. His improvement continued, and now Mr. Lake is entirely recovered and equal to any exertion. He has recently experimented with the ore and others who have rheumatic troubles, or pains in the back or head, and it seems to be a cure as well for heart disease. The miners at Daggett now use the ore for a remedy. They tie it in a cloth and bind it on the affected part. The curative powers of magnetism have long been a subject of study and practice in certain diseases—rheumatism, in particular, has been benefited by its use in one form or another. It is possible that its use, as above, direct from nature, may be more successful than its indirect use. At all events, the miners who have been at work at this particular mine are quite sanguine in regard to the curative power of this particular deposit, and it is said that the establishment of a sanitarium on this mountain is among the early probabilities.

DOMESTIC ECONOMY.

FLANNEL CAKE.—Beat six eggs light; stir in two pounds of flour, one gill of yeast, salt, and sufficient milk to make a thick batter; make them at night for breakfast. Have your griddle hot, fry; butter and send hot to the table.

HAM AND EGGS.—Soak ham over night in milk. In the morning, fry until brown, then remove to a platter. Fry eggs by dipping gravy over them until done, instead of turning, then take up carefully and lay upon the slices of ham.

LEMON PUDDING.—Six ounces of melted butter; pour it over the same quantity of sugar; stir it well until cold. Grate the rind of a large lemon, and add to it eight eggs well beaten and the juice of two lemons; stir all together and bake with puff paste around the edges of dish.

BUNS.—Break one egg into a cup and fill with sweet milk; mix with it half a cup of yeast, half a cup of butter, one cup of sugar, enough flour to make soft dough; flavor with cinnamon and nutmeg; let rise till very light, then mold into biscuits with a few currants; let rise a second time and bake.

CHOCOLATE CAKE.—One pound of sugar, six eggs, one pound of flour, one-half pound of butter, one cup of milk, one teaspoon of baking-powder; bake in layers. For the dressing, take one-half pound chocolate, two pounds of sugar, one cup milk or cream, one-half cup butter; cook until thick and spread between the layers.

COFFEE.—To make good coffee, allow a tablespoon of finely ground coffee for each person. Add sufficient cold water to cover well, and place on the stove till it boils three minutes, then fill up with boiling water. This coffee will require no egg to settle it. Before serving at the breakfast-table, pour out a teaspoon of coffee and return to the coffee-pot.

ORANGE FLOAT.—One quart of water, the juice and pulp of two lemons, one coffee cup of sugar. When boiling hot, add four tablespoons of cornstarch. Let boil 15 minutes, stirring all the time. When cold, pour it over four or five oranges that have been sliced into a glass dish, and over the top spread the beaten whites of three eggs, sweetened and flavored with vanilla.

CINNAMON RUSKS.—One cup of mashed potatoes, one of hop yeast, and three eggs. Mix all together. When light, add half a cup of butter, one tablespoonful of ground cinnamon and flour to make a stiff dough. Let it rise, make it into small cakes and put in buttered pans. When light, grease the tops with butter, sprinkle thickly with sugar and cinnamon. Bake in quick oven.

CHOCOLATE.—A senator's wife, who is said to serve the best chocolate in Washington, gave the following receipt to Miss Elith Ingalls: Three-quarters of a cake of Baker's chocolate, one quart of cold water, one quart of sweet, rich milk, sugar to taste. Grate or scrape the chocolate and mix with the water, thoroughly and smoothly; then sweeten and allow to boil until it is quite a thick paste. Boil the milk separately and stir into the chocolate mixture, and cook a few minutes longer.

EGG SNOW.—Put into a saucepan a pint of milk, adding two dessertspoonfuls of orange water and two ounces of sugar, and let it boil. Take six eggs, separate the yolks from the whites, beat the latter to a froth or snow (hence the name), and put into the boiling milk by spoonfuls; stir the whole about with a skimmer. When done, take the eggs out and dress them on the dish for serving. Thicken the milk over the fire with the beaten yolks, and pour this over the frothed eggs; let the whole cool before serving it.

DEVILED TONGUE.—Slice a cold boiled tongue (fresh or smoked) and fry the slices quickly in nice drippings. If you have none, use butter. Chop a little onion fine and stir in before the tongue is fried. Take up the slices, arrange neatly, overlapping one another, in a hot-water dish. Strain the fat; return to the fire; stir in a teaspoonful of browned flour, half a teaspoonful of Worcestershire sauce, a tablespoonful of vinegar, a quarter of a teaspoonful of mustard, a pinch of cayenne and half a cup of boiling water. Stir and boil for one minute and pour over the tongue.



A. T. DEWEY.

W. B. EWER.

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[NEW THIS ISSUE.]

Agricultural Implements—Truman, Hooker & Co.
Eru T-Drier—J. W. Cassidy, Petaluma, Cal.
Stecher Lithographic Co., Rochester, N. Y.
Windmills—P. P. Mast & Co.
Washing Machines—E. W. Melvin, Sacramento, Cal.
Rural Health Retreat, St. Helena, Cal.
Snell's Seminary, Oakland, Cal.
Western Appliance—Watkinson McCullum, Placerville, Cal.
Fruit-Drier—L. W. Parsons, Los Gatos, Cal.

See Advertising Columns.

The Week.

There have been continued dashes of rain, which have done serious injury to small fruits in some sections and have increased the ill effects of previous downfalls on the hay which was off its feet, but have contributed to the strong growth of all plants still in growing condition. Thus the pasture and grain in the later-maturing regions are growing rapidly, and though rust and lice are reported in some fields, the trouble is not general yet and may not increase. By the end of this month we shall probably have something quite definite as to the grain output for 1889. It is reported from all directions that the grain lodged by the last heavy rain is picking up again, and even where down will fill well in most cases.

Available labor supplies for the coming fruit-harvest are now being diligently canvassed. The State Board of Trade is to renew its efforts to supply white labor from San Francisco, and will send an agent to confer with the local boards concerning the supplanting of the Chinese. In the same connection, it may be stated that the U. S. Supreme Court has decided, during the week, that Chinamen now abroad cannot return, as described in another column.

The supply of China labor is decreasing, and that of white help increasing by immigration. No doubt the young people will also be an important factor again this year in the work of the orchard and preserving establishments. The change from Mongol to Caucasian is coming about slowly, and will be, ere long, accomplished without hardship and with general benefit.

The Spirit of the Age.

It is one of the peculiar features of this age that there is not a vice, crime, wrong or calamity, or even error of judgment, that affects mankind, but somebody is after it, to enlighten, to cure, to kill, or to evade. "This is truly the patent age of new inventions." And not of inventions alone, but of associations, combinations of men, of women, or both, to tear down and destroy whatever is inimical to human happiness. There is not an evil but has some enemy on its track, bent on its destruction.

Try to think of one with no enemy in the field! You cannot. From the imperial autocrat on his throne down to the army worm, the campaign for its destruction is planned, organized, and marching to an assured success. In some corner, garret, cellar, or open field, some enthusiast is rallying humanity against wrong.

And against right also! Well, yes, under a mistake. The general plan is to extirpate wrong. But there are shallow brains and mad enthusiasts who mistake lambs for wolves, and in the name of justice would destroy all the machinery and wealth that make life valuable and enjoyable. But these will fail, or their eyes will be opened to a better purpose.

Man was sent into this world to make a garden and a paradise of it, worthy of God and a blessed abode for man. Year by year it is better. You may die, and most probably will, and not see the end. But if you look back upon the past you may see that it is coming. The sun of a better future already tips the horizon, and the splendid noon of its ascendance is only a matter of time.

All schemes of vice shall fail, in the end, and all schemes of virtue shall prove a success. We do not strive in vain for truth and right. It is God's plan that they shall win. Hope, and despair not! Work, and weary not! The victory is sure! Amid conflicting opinions, and conflicting arms, we have this assurance, "that ever the right comes uppermost and ever is justice done." The world moves, not to a deeper barbarism, but to a more moral and beneficent age.

Look where you will over the wide world, and you see the clouds of superstition and despotism rising and breaking to make way for light and liberty. Nations are interchanging the ideas and products of the whole earth. As your garden and your barnyard present the plants and animals of every kingdom, so your minds imbibe their ideas, their manners, and their morals.

And we take the best. Only the best and the most useful are fostered and preserved. Even the second rate will fade and die out. The greatest excellence of all the earth is throwing itself at the feet of man, to do him honor and to make him happy.

And the end? That man shall be as happy and as perfect as God has fitted him to become. In government, religion, morals, machinery, food, clothing and homes, the dross must perish, and the superexcellent be our inheritance forever.

It is written in the Constitution and history of man.

A MALFORMED REFORM MEASURE.—On the 13th inst. Gov. Hill of New York vetoed the Saxton Electoral Reform bill, on the ground that the requirements that none but officially printed ballots shall be voted and that each ticket shall contain the names of all candidates of all parties and combinations pretending to be parties, are cumbersome and unconstitutional.

It took 7000 bags of sand to stop a leak in the Fair ranch levee at Knights Landing.

Government Irrigation Work.

Interest is rife in the proposed irrigation work by the General Government. The leading topics under which present information arranges itself are two: The plans of the special Senate committee and the effort of California to adequately impress them with the results attained here by irrigation enterprises and the desirability of giving California a generous share of the work under charge of the U. S. Geological Survey. It is telegraphed from Washington that the Senate Committee expect to spend three weeks in the field, and will visit Northern Dakota, Montana, Idaho as far as the Snake-river basin, Utah, Nevada, California and Arizona, Southwestern Texas along the valley of the Rio Grande from El Paso to San Antonio, and thence by the Fort Worth, Santa Fe & Colorado railway across the Staked Plains, the Pan Handle region and part of Southeastern New Mexico, and through that Territory to Southwest Kansas, Colorado and Wyoming.

This seems rather a large extent of territory to cover in three weeks, but perhaps the committee will overrun their estimate and take a more thorough look into affairs than three weeks would allow. It would seem that it would require about that much time to cover the distance at ordinary rate of railway speed, and that a car-seat review would be all that could be made. We trust that the telegram is in error and that the committee will give three months to the work.

As to participation by the U. S. Geological Survey, the telegram says that the committee will be accompanied by the director of the Geological Survey, and by Richard J. Hinton, who prepared for the Department of Agriculture a report on irrigation in the United States, published by the United States Senate in 1887. He accompanies the special committee as an expert, having been appointed Irrigation Engineer in the U. S. Geological Survey, which will have six engineering parties in the field some time before the committee starts. The public domain west of the tenth meridian will be divided finally into about 15 hydrological districts, as the topography of the region best indicates proper storage basins.

The California State Board of Trade is undertaking to arrange facts and routes for the use of the visiting committeemen and experts. Senator Stewart of Nevada, who has pushed this project from the start, is now engaged with local preparations for the committee's visit. A determined and we trust successful effort will be made to convince the visitors, and through them the Eastern people, of the vastness of the possibilities of the arid regions west of the Rocky mountains if adequate irrigation work is done, and we hope it will succeed.

The Bench Show.

Under the auspices of the Pacific Kennel Club, embracing poultry and pigeons as well as dogs, is to open at the Mechanics' Pavilion next Wednesday. Wm. Graham, the famous expert, is on his way hither from Belfast, Ireland, to judge the canine candidates for honors, and is expected in the city Saturday.

Entries of dogs of various breeds have been coming in from all over the country in such numbers that accommodations for 750 were ordered a week ago.

The feathered classes, also, promise to be well represented, many varieties being entered and some specimens having already arrived from Mexico.

Taking all the signs together, they point to a very interesting and successful exhibition.

AGRICULTURAL DIRECTORS.—Gov. Waterman has appointed the following to be directors of District Board of Agriculture No. 6: J. C. Newton of Los Angeles county, vice self, term expired; S. Lichtenberger, Los Angeles county, vice self, term expired; E. T. Wright of Los Angeles county, vice J. W. Waters Jr. of San Bernardino, no longer within the district.

THE EDITORIAL ASSOCIATION of Southern California is to hold a meeting at Coronado, July 9th to 11th inclusive. The hotel will give special rates, and the railroads will convey all members to San Diego and return free of charge. A program will soon be issued by the Executive Committee.

The New York Bacchanalia.

The late centennial at New York has reflected some credit upon Washington by contrast, though it might have been better morally for the country if it had never been celebrated. The first scandal arose from the foolish efforts of the aristocratic 400 (many of whom would have out their ancestors if they could have been resurrected for the occasion, because they might eat with a knife and do many things which would infringe upon the code of etiquette) to control the event and select the participants. But apart from other mistakes the chief feature was the disgraceful orgies of the feast, which could hardly be paralleled by the bacchanalian carousal of the last session of our late Legislature. Foreigners who attended and witnessed drunken waiters, who saw the leading men and women of the land insulted, struggling supperless—for the waiters and mob held the fort, that is, the table—trying for hours to get their hats while fighting for places until their clothing was torn; who heard the ticket-takers admit that they sold tickets and pocketed the funds; who knew that wine was stolen from the table and sold to outsiders, will oppose any effort in their respective countries to limit monarchy or introduce Republican tendencies coated with Jeffersonian simplicity. We sincerely hope Washington will lack media of information which will cause him to disown his children.

A SANITARY STABLE.—W. H. Anderson, one of the Rural's subscribers at Riverside, is constructing for the use of four tenement-houses now in process of erection a patent ventilated stable. The several stalls for horses are built about a central pit, into which the manure is thrown. This pit is boarded up tightly, with the exception of an air-shaft extending to the top of a dome-like structure built over the pit and carried to the top of the building. Air passes through an open space under tightly closed doors into the pit, and thence to the shaft or ventilator, so that there is a constant current of air into the pit and out at the top of the dome, carrying with it and dispersing all disagreeable odors. The pit can be cleaned out at convenient times, and the stable be thus kept a fine abode for stock and not the nuisance which too many stables and barns are in our cities and towns.

GRAIN GAMBLING OUTLAWED IN ST. LOUIS.—On April 27th the Missouri Legislature passed the "Grain Option" bill, prohibiting the sale of grain, stocks or bonds when the seller does not actually have the full amount of the article sold in his possession. On the 9th instant the Governor signed the Act, and the dealers in "options" are panic-stricken. The statute is so worded that the issue cannot be dodged, and the St. Louis grain-gamblers are said to favor closing the Merchants' Exchange and opening a "Board of Trade" over in Illinois, at East St. Louis.

CONVENTION OF NURSERYMEN.—The Fourteenth Annual Meeting of the American Association of Nurserymen will begin at Chicago, Ill., June 5, 1889. Secretary C. A. Green (Rochester, N. Y.) says that railroad tickets for the round trip, from any part of the United States and Canada, may be secured by any person, whether a nurseryman or not, at a rate of one-third fare for the return trip. This will be a notable gathering of distinguished nurserymen and horticulturists, and an interesting and instructive program is offered.

The State Board of Harbor Commissioners is to do away with the present system of collecting tolls at the wharves. After September 1st all vessels will be compelled to furnish manifests of their cargoes, and the owners or consignees of the vessels will be expected to pay the tolls and to look to shippers for their reimbursement.

SEVERAL societies in France have awarded medals for a paper on the properties of butter-milk to quench thirst, and suggesting it as a help in overcoming the drink habit. It might be a profitable suggestion to remember here as well.

The Santa Barbara Horticultural Society, at its May meeting, voted to omit the Spring Exhibition this year. Their next monthly meeting is to be held at Spence's grove the first Wednesday in June.

A Handsome Pair.

The picture which we give herewith of the beautiful Shorthorn cow Wild Eyes of Browndale 7th and her royal son Waterloo Wild Eyes will please lovers of fine animals. Browndale is the fine breeding farm of H. F. Brown, Minneapolis, Minn., who is personally known to many Californians through his visits to this State. We have shown several of Mr. Brown's cattle before, so our readers are informed of the prominent place he occupies among the breeders of the Mississippi valley. He has strains of the best and most popular Shorthorn blood, and his annual sales are great events in Shorthorn circles. One of these sales, the tenth, will be held in Minneapolis May 21st. At the head of his sale catalogue for that date stands the youngster shown in the engraving. He promises to be a remarkably fine bull. His dam has eight Duke and Oxford top crosses. His sire, imported Duke of Waterloo, is an absolutely pure Bates-bred Waterloo, which, together with Wild Eyes, combines all the best Bates blood. Mr. Brown's catalogue has on its introductory page a note on the profit of farming by proxy, which will no doubt interest many of our readers. He is engaged in other pursuits, and still finds farming profitable. The following is a quotation from his pamphlet:

The Browndale Farm contains 250 acres only, on which I keep 100 head of cattle and horses. I hire all my work done, and there has not been a year since 1875 that the farm has not given me a profit, and usually from \$4000 to \$5000 per year. Any good farm of 1000 or more acres within a radius of 75 or 100 miles of Minneapolis and St. Paul, well stocked with good Shorthorn cattle, draft horses, sheep and hogs, with the same capital, energy and attention given our mercantile and manufacturing business in Minneapolis, will beat the manufacturing and mercantile business in 20 years' operation. You will ask why so many fail in large stock farms. I will answer, they have no attention, and the city proprietors get sick before the thing is fairly commenced. I know of one city farmer who sold 90 two and three years old native steers last summer for \$8 per head. That man says stock-growing is a humbug. I know another who sold 50 head of grade Shorthorn steers three years old last fall that never saw a barn, but had enough to eat, for \$100 per head. These steers weighed 2000 pounds each and brought five cents per pound, while the native brought probably about 1½ cents. I sold last spring three cows for beef, one a Shorthorn, at five cents; she brought \$75; one a grade Jersey, three cents, brought \$27; one a native, two cents, brought \$18—all sold at same time to same man, and each cow had same care and feed. Our markets now require the best quality of everything. The best horse is none too good for the man who has the money to buy. The same is true of the cow, sheep or hog. No man can afford to spend his time breeding anything else.

It would not do to conclude from Mr. Brown's experience that every one can do as well as he in the same line, for he has a wonderful amount of the "know how" in business matters and succeeds in getting very long prices at his sales. Still, no doubt, his testimony in favor of producing the best is true as a general proposition, and any one can profit by it to some degree, according to circumstances.

FROM THEOLOGY TO AGRICULTURE.—Rev. Oscar Clute, minister of the Unitarian church at Pomona, has been elected president of the Michigan Agricultural College at a salary of \$5000 per annum, and will start for Lansing about the 1st of June. Mr. Clute was a professor in the same college 20 odd years ago, before he entered the ministry. His little apicultural book, the "Blessed Bees," has been enjoyed by many who know the author only under his *nom de plume* of "John Allen."

The Advance of Woman.

While we look for many changes in the next quarter century and expect to see inventions multiply almost as rapidly in the next decade as in the past 25 years, we believe that one of the most noticeable, even eclipsing Lincoln's emancipation of Southern slaves, will be the changed condition of woman. Step by step she is advancing. Her shackles will drop without the roar of battle. Quietly she has assumed new roles and demonstrated that she could fill the position. When the college doors feebly swung open, men said: "Her constitution is too weak; she cannot bear the strain." But she did, and stood at the head of her class, winning honors in logic and higher mathematics which it was supposed would be monopolized by male students. Her indomitable perseverance at the medical school won the respect of the stony-hearted students, and she proved that the same spirit which kept her from faltering when nursing wounded soldiers on the field of battle could enable her to use the scalpel when needed to alleviate suffering in the abode

Home Improvement.

In the New England and some of the eastern Central States there are village improvement societies whose object is sufficiently set forth in their name. Under their auspices it is wonderful how the appearance of many towns has changed. This has been done without increasing the burden of taxation by teaching individuals how, with a little effort, they may make their homes attractive and enhance the value of real estate. The house where an old rag filled the broken pane of glass, the street fringed with weeds whose seeds scattered mischief with each gust of wind, and various other signs of poverty and neglect, have disappeared where these societies have obtained a good footing. Improvement is contagious. When one improvement is made others are rendered necessary, and one change not only makes another necessary on the same building, but also in adjoining homes. In California, the home of flowers, it is possible for the poorest family to have a comfortable cottage, with beds of flowers, fruitful trees, and well-trimmed cypress hedge

The Blessed Bugs.

[Written for the Rural Press by JEANNE C. CARR.]

Not many weeks ago I spent a morning with Mr. Alexander Craw in the once famous Wolf-skill orange orchard, where the bare trunks of noble trees half a century old were feebly struggling to reclothe these sad monuments of insect depredations.

Any one who visited this representative orchard during its prime will appreciate the pathetic aspect of the calamity which has annihilated many of the venerable orchards of Los Angeles—a calamity for which the enhanced value of land was not a compensation to those born and bred under their shade.

For myself, the grand avenue at Sunny Slope, and the magnificent orchards of my neighbors the Chapmans and Wilsons, had been *wailing-places* like those of the Jews about Jerusalem even before the swift destroyer had appeared in Pasadena. Here the few inhabitants to whom the charms of their rural homes were priceless even in booming-times, prayed and sprayed without ceasing, and apparently in vain.

"Mates in Misery," we clung to such feeble hopes as crossed the Pacific from desolated Australia; yet when I stood before the little tree at Wolfskill, around which a screen of bolting cloth served as a cage for the tiny flies, not as large as well-fed mosquitoes which Mr. Koebele had imported, I felt the impotence of such relief as adding insult to our injuries.

And so I wickedly lifted up my voice in the meeting of the State Horticultural Society against the "delusion," and declared my faith in spraying pumps and compounds as the only relief.

Hardly had I got the nasty-smelling mixtures concocted, when I learned that certain "lady-bugs" (not the flies), also imported by Mr. Koebele, and which had apparently been lost in the Wolfskill grove, had reappeared in such numbers and manifestly with such appetites as justified their distribution. A miracle had been wrought in the leafy hiding places of the orchard by which we of little faith are confounded.

No sooner had the Messrs. Wolfskill and Craw verified their discovery than the good news was made known. The parent insects had been industrious and their larvae were quite abundant in the trees; a few having completed their transformations, appeared as bright little

ladybugs, snapping their wings defiantly among the white masses of the scale, while the immature insects were seen rioting like so many pigs in the bodies of the cottony mother bugs! Strange contrivances are these! These tiny devourers eat eggs only, and are wiser than to fool away their time upon immature insects.

Vedolia Cardinalis is the high-sounding name given to this small savior of our groves. She is welcomed with raptures of rejoicing, of which I send a single specimen from the morning issue of the *Los Angeles Times*.

[Following is the "fæan" inclosed by Mrs. Carr.—EDS. PRESS.]

The Millennium.

When the *Icerya purchasi* lies down with the *Vedolia cardinalis*, we may fairly conclude that the millennium "have arrove." *Vedolia Cardinalis*, Eq., is among us, and *Icerya purchasi* must take a back seat. In other words, the Australian beetle has the call on the festive and ubiquitous scalebug, and the places that have been knowing the latter to an extent not at all appreciated in this bailiwick will not know him so much by a great majority after the said beetle, the party of the first part, has become thoroughly at home among us and acclimated to the glorious climate of California. No more will the woolly little snipes of the valley whitewash our orange groves with their persons and make themselves outcasts and things to be abhorred. No more will they exude smut on our oranges and cast a gloom over our agile and able orange-grower with one fell cast, for the said *Vedolia cardinalis* is here to stay, and will without doubt receive the encouragement and support that his merits as a chewer-up of *Icerya purchasi* entitles him to. We welcome the coming *Vedolia cardinalis* and speed the parting *Icerya purchasi* by a unanimous vote, and trust that the former's stay among us may prove pleasant and profitable.

THE Rio Bravo Vineyard and Raisin Co. has incorporated with \$80,000 capital stock and R. E. Houghton, C. H. Blinn, J. W. Litchfield, G. C. Sweet and H. A. Blodgett as directors.



THOROUGHbred SHORTHORNS—WILD EYES OF BROWNDALÉ 7th AND WATERLOO WILD EYES.

of peace. Although it might be supposed that the legal profession was not adapted to this sex, yet those who have followed the career of the few women who have been admitted to the bar do not consider she has shown any lack of fitness as a pleader or counselor. In journalism she shines. Nearly all the leading papers of the country recognize and employ her services. We know where a young woman acts as reporter on a morning daily and wanders at midnight in quest of news. She does as good work as any of her male associates, and no person would venture to speak her name with disrespect. One of the most noted stock-yard reporters is a woman. Her success in that department shows she can fill any position, even that most foreign to her nature, when necessary. As dealers in real estate women are becoming famous; as teachers they are getting the monopoly; men favor their election as superintendents of schools, and the experience of certain Kansas towns, notably Oskaloosa, where all the town authorities have been women, who found the town in debt, and had a surplus at the end of the year, whose good management secured their triumphant reelection, will go far toward giving women the ballot and placing them in office.

CONTRA COSTANS are invited to meet in Bennett's hall, Martinez, on Saturday, May 18th, at 1 o'clock P. M., for the purpose of organizing District Agricultural Society No. 23 under the provisions of the Act of the Legislature.

at trifling expense. The effect on the eye of every passer-by is pleasing, and, if offered for sale, it will add more to the selling price than quite an expenditure of money in other directions. One of the earliest of Eastern towns to be built on lines of beauty was Vineland, New Jersey. It was founded on a desolate waste of sand, yet as all purchasers were obliged to conform to certain specifications, every house thus built by rule, equidistant from the street, beautiful flowers in the yard, and handsome shade trees lining the avenues, the city soon became so attractive that the desert literally blossomed as the rose and people of learning, refinement and culture flocked there until the city became a synonym for beauty and order. By method much can be accomplished. Let every householder resolve that he will devote 15 minutes each week-day to the improvement of his grounds. It is so little time that it will hardly be felt, and as the improvements become noticeable the fascination of the work will be a strong temptation to devote more than the allotted time to the task. Time so spent will not be lost.

MARRIED MEN PREFERRED.—A strike took place the other day in A. M. Cox's factory at Duluth, whereupon the proprietor raised the wages of all his married employees and gave single men notice that they would not be wanted after the end of the month unless they were married by that time, in which event they would be retained at the increased salary.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

BUDS, BUGS AND BRIMSTONE.—Livermore Herald, May 9: The dormant-bud apricots set out this season have in many places been attacked by a bug, which eats the leaves, and many of the young shoots will be found to be entirely stripped of foliage. The almonds are not affected, nor are the larger apricots. A remedy has been found, however, in the shape of common ground sulphur. Dust the leaves of the young shoots, when the dew is on, and scatter the sulphur plentifully on the ground around the tree. Apricots treated in this way several weeks ago have been untouched by the bugs, and made a fine growth, while others, but a short distance away, and not sulphured, have been very nearly eaten up.

LIVERMORE LOCALS.—H. Thonesen planted about ten acres in almonds on South avenue, this spring, and the trees are making a fine start. Any one wishing to see how almonds will bear in this valley, with good care, should inspect those in front of E. C. Newell's residence, on L street. It would be difficult to find room to hang much more fruit on the trees.... Some few of our vineyards have been visited by the cut-worm. The young shoots were badly damaged in spots in some of the vineyards on the Arroyo Valle, but new ones are coming out, equally laden with fruit. This storm, we understand, seems to have discouraged the invader.

HAY.—Our hay dealers estimate the amount of hay cut in the township before this rain at 10,000 tons, and in the country tributary to Livermore at half that amount. It would weigh much more just now! Although this hay is greatly injured, it is not probable that much of it will be a total loss. Dried, stacked and salted, it will make a good stock feed.... Many of our farmers will summer-fallow the ground recently cut to hay.

LOQUATS BEARING.—Oakland Tribune, May 7: During the last few years it has been no uncommon thing to see Japanese loquats in full bearing in this city. The tree is a beautiful evergreen, and many are to be seen throughout the city ornamenting lawns and gardens. The trees do not begin to bear until they have reached quite an age, seldom less than 12 or 15 years. A bunch of this fruit, growing on a branch covered with beautiful green and glossy large leaves, was brought to this office to-day. It was from a tree in the garden of Dr. Woolsey's Hospital for Invalids on Twelfth street, between Jackson and Madison streets. The fruit has just commenced to ripen and is of excellent quality.

Butte.

THERMALITO ORANGES.—Oroville Mercury, May 10: Yesterday we visited the 40-acre orange grove of the Oroville Citrus Association at Thermalito, and were surprised and delighted to see so many of the young trees in bearing. Probably 2000 trees, mostly Washington Navels, have a fine crop of young oranges. Some of them are as full as the little oranges can stick to the branches. Supt. Murray says that they will not allow the trees to carry full crops this year and will have them carefully picked. The grove is one of the most interesting and beautiful sights in the community. The trees are growing as vigorously as possible. The association will have several carloads of oranges ready to ship by next Christmas. Mr. Murray is still planting seeds and putting young orange trees in nursery.

SILKWORMS.—Chico Enterprise, May 4: Last March Elias Finley of this city obtained from the State Board of Silk Culture a large number of eggs. These were placed in a warm room and well ventilated, and in about 60 days began hatching, and at the end of 40 days the worm began to make its cocoon. This afternoon Mr. Finley showed us thousands and thousands of these worms at work, busily spinning. A large number of cocoons have already been spun; 360 weigh a pound, and Mr. Finley thinks he will have about 100 pounds. He has already made arrangements to dispose of his cocoons in S. F. It is a treat to watch the workings of these curious creatures, and many of our people have called at Mr. Finley's to witness them.

Contra Costa.

BLACKBERRIES AT MARTINEZ.—Item, May 9: Jasper J. Jones picked the first ripe blackberries of the season in his garden yesterday. The fruit is large and delicious.

El Dorado.

HAIL AND THUNDER.—"F. F." writing from Diamond Spring, May 8th, says: Up in this part of the foothills we had been having splendid spring weather the last few days, everything looking its best, and had a good prospect of a bountiful fruit crop. Last Saturday afternoon it started to rain heavily, continuing till the following Tuesday night. Wednesday morning opened up warm and bright, lasting till noon, when distant thunder was heard in the N. N. W. It gradually drew nearer, bringing with it a heavy cloud, which burst over Diamond about 1:45, pouring down showers of hail, ranging in size from 1 to 2½ inches in circumference. The storm lasted about 10 minutes. The damage done in its track is extensive, it having stripped the vines of their new wood and entirely thinned out other fruit.

The vineyard has now a winter's appearance, having nothing left on vines but the last year's wood in places. The center of the storm seemed to be at Diamond Spring depot, extending about half a mile each way, taking a S. W. course. I have spoken to men who have been here from 30 to 40 years, and they had never seen such hailstones. I should like to hear what damage other ranchers have sustained who were visited by the storm and how far it reached.

Fresno.

NEW RAISIN VINEYARDS.—Fresno Republican, May 10: The older vineyards near town are pictures of beauty in their fresh foliage, clean avenues and perfect state of cultivation, but after passing into the grain-growing districts, 10 miles east of town, new improvements are found, of a magnitude that few people are aware of who have not visited that locality this season. The Fairview vineyard consists of 320 acres of nearly level and very rich, chocolate-colored soil, 215 acres of which was this spring planted to Muscat vines. The proprietors are E. J. Root of Fresno and Norman Parish, and one or two other gentlemen of S. F. Mr. Root has the general management, and the work of leveling, planting, etc., has been done under the supervision of L. S. Chittenden. Nearly every vine planted is growing thriftily, and the entire place, from the neatly whitewashed barn and implement-houses to the substantial, rabbit-proof fence, shows that care, industry and intelligence are exercised in its management. From Mr. Chittenden information regarding the acreage of raisin vineyard planted in that immediate vicinity was obtained as follows: By Col. Asa Ellis, 160 acres; Capt. Cogan, 130 acres; Mr. Gray, 80 acres; G. A. Smith, 50 acres; Capt. Youngberger, 40 acres; Mr. Smith, 30 acres; J. A. Forsman, 20 acres; G. A. Wilson, 60 acres; J. L. McLeland, 80 acres; Balfour, Fortune & Co., 150 acres.

WILL DO THEIR OWN PACKING.—Cor. Republican, May 10: The regular meeting of the Washington colony raisin-growers took place last Saturday night. There was a respectable attendance. The main topic under discussion was the raisin-packing question. Over \$2000 has been subscribed toward the organization of a raisin-packing establishment to be carried on exclusively by growers. They propose to pack their own raisins, adopt their own brands and manage their own business themselves. No person shall be permitted to take more stock than \$20 per acre actually planted in fruit or vines, nor less than \$100, 10 per cent of said subscription to be paid as soon as permanently organized and a treasurer elected. The subscription list is now in the hands of A. O. Bryan, at Oleander, and will be open for subscriptions for two weeks.... The subscribers of the proposed raisin-packing company wish to frame a set of by-laws that will carefully protect their interests as growers, and guard against the possibilities of outside capital getting control. They intend to pack their crops in a manner that will give satisfaction to consumers, thereby gaining the confidence of the people and a good reputation.

Humboldt.

HORSE-BREAKING IN THE BREAKERS.—Ferndale Enterprise: Herb Lewis had a lively fracas on the Centerville beach Sunday. He was riding a colt, and as the animal was somewhat obstinate, he thought the soft sand would be a good place to give it a lesson; accordingly he dismounted, and after tying the colt's head and tail together, started it, but before he knew it the animal got away from him, whirled itself into the breakers and was soon in swimming water. Herb, on the spur of the moment, mounted the horse of Jim Odell, who was with him at the time, and put into the breakers. He reached the colt in safety, out the rope which bound his head and tail together, and as luck would have it, a big swell caught him and both horses and landed them safely on the beach.

SHEEPMEN'S CONFERENCE.—Eureka Times, May 9: A meeting of sheep-owners of Humboldt county was held at the Vance hotel yesterday. Quite a number were present. R. Porter was elected chairman. July 2, 1889, 10 A. M., was selected as the date for a meeting of the sheep-owners at Eureka to consider the new law relating to the appointment of a Sheep Commissioner, etc. J. B. Casterlin, W. T. Olmstead, H. W. Clellan, R. Porter, H. M. Davoy and Ira Russ were appointed a committee to prepare rules and regulations to be submitted to said meeting and to make all necessary arrangements therefor, and to request the Board of Supervisors to defer the appointment of a sheep commissioner until after the holding of said meeting.

AN EFFETUAL INSECTICIDE.—Rohnerville Herald: At the regular monthly meeting of the Humboldt Co. Horticultural Society, May 4th, Mathew Perrott, W. B. Dobbys and J. T. Manon, the committee appointed to test the value of the soap manufactured by Jameson & Jack, Eureka, as an insect exterminator, reported as follows: On April 13th we selected two trees in the orchard of J. T. Manon which were badly affected with woolly aphis, red spider and oyster scale, the trees being in full bloom. The first sprayed was at the rate of one pound of soap to two gallons of water, the second at the rate of one pound of soap to four gallons of water. The Bean spray pump was used. We have visited the trees several times since that date and found every insect dead, and the eggs as well, which had been reached by the spray. Neither the foliage nor blossoms

were in any wise injured. Your committee is well pleased with the Jameson soap as an insect exterminator, and cheerfully recommends it to the orchardists of Humboldt county, also the Bean spray pump, believing it to be one of the best in use.

Kern.

UPLAND ALFALFA.—Bakersfield Echo, May 9: Since we mentioned D. C. Maddux's success in growing alfalfa in the hills, several other gentlemen state that in other parts of the county they have seen small patches of volunteer which demonstrate the correctness of the proposition that alfalfa does well on the higher altitudes of unirrigated lands. One gentleman said that he knew of some near the old Chester & Livermore sawmill that had grown there for some years and was thrifty and strong.

Modoc.

GRAIN AND HAY CROPS.—Independent, May 9: Mr. E. Lauer, who has traveled over a great many ranches in the vicinity of Alturas, tells us that everywhere he has been, the crops, grain especially, are looking better than he ever saw them at this season of the year. In the majority of places the meadows are also looking finely, and with the exception of a few ranches on Pine creek, there will be a fine hay crop. The grass on the range is also excellent, and the only difficulty is the scarcity of water for stock.... H. L. Spargur, who came over from Surprise valley Tuesday, says that taking the valley from Cedarville to Bidwell, he never saw the crops looking better than they do now. The grain crop especially will be immense, and the hay crop will be much better than was anticipated a few weeks ago.... Hardin Smith, who resides on the Holden ranch, near Likely, tells us that there is every prospect for a fine hay crop on his ranch this year. The grass is much further advanced than is usual at this season of the year. Mr. Smith's ranch is mostly seeded to timothy and alfalfa, and is watered by several large springs which furnish a never-failing supply of water.

Plumas.

QUINCY GETS THE FAIR.—Greenville Bulletin, May 8: Pursuant to notice given, the Board of Directors met in Susanville last Saturday for the purpose of receiving bids, adopting a speed program and premium list, electing officers, etc. The directors present were J. W. Thompson, J. D. Byers, W. P. Hall, J. McBeth, Dr. J. S. Caister, J. S. Bransford and J. Stephan. There were only two bids, one for the location at Quincy and one at Susanville, the former being \$4500 and all privileges, the latter a little over \$4000, reserving the privileges. By a unanimous vote, the tenth annual fair is to be held at Quincy (Sept. 23d to 27th inclusive). The officers elected are J. W. Thompson, Pres.; J. D. Byers, V. P.; J. H. Whitlock, Treas.; P. L. Hallstead, Sec.; R. L. Davis, Ass't Sec. The people of Susanville, we are informed, are satisfied that they were fairly defeated and only regret that they did not correctly "size up" the Quincy bid. It is certain that Quincy will spare no efforts to entertain the large crowd that is sure to be present.

San Benito.

RIPARIAN RIGHTS MENACED.—Hollister Free Lance, May 10: A big steal is under contemplation, by which nearly all the water of the San Benito river is to be used in Fresno county, south of Huron. The men at the head of the enterprise are wealthy capitalists. N. S. Smith, a deputy surveyor of Fresno county, has made all necessary surveys and located the site of the proposed dam. The scheme is to impound the waters of the San Benito river during the winter by means of a dam 200 feet in height built across a narrow but deep canyon. The dam will be constructed at a point about six miles from Erie. From the lake thus formed, water will be taken by canals and tunnels across the divide, and down White's creek to Pleasant valley, where it will be used for irrigating a tract of land controlled by the syndicate. The farmers and property-owners of Erie and vicinity are on the lookout, and as soon as active work on the dam is commenced, will proceed to place an injunction on the proceedings on the ground that it interferes with their riparian rights. Furthermore, the dam when constructed is liable during the winter to break away. It would be a constant menace to the whole of San Benito valley.

FLORAL FAIR.—Hollister Advance, May 10: One of the most successful events that have ever taken place in Hollister was the Floral Fair held at the Opera House, Friday and Saturday of last week. The fair far surpassed all previous efforts of the ladies, both in the display of flowers and artistic design of the pieces. Visitors to the hall learned that the gardens of this vicinity contain as many choice plants and flowers as the most favored clime.... After paying expenses, the treasury of the Presbyterian church was benefited to the extent of \$175.

San Bernardino.

DISTRICT NO. 28.—Ontario Record: Governor Waterman has appointed the following directors for Agricultural District No. 28, San Bernardino county: W. R. Toles, L. M. Holt and L. F. Cunningham of San Bernardino; F. M. Hoag of Redlands; Joseph Jarvis and Emil Rosenthal of Riverside; Geo. L. Joy of South Riverside, and W. E. Collins of Ontario. Good judgment has been shown in the selection of these gentlemen.

ORANGE-GROWING ON A LARGE SCALE.—Citrograph, May 4: During the four weeks

just past there has been organized the Redlands Orange Grove and Water Co., with a capital stock of \$300,000. A dividend of eight per cent per annum is guaranteed to the stockholders from the beginning, and after six or seven years the profits will be much greater. The company now has between 200 and 300 acres of the finest lands in the county. These lands are all to be set out to the choicest varieties of oranges this year, and planting is going on with the utmost possible speed. Water in abundance has been secured, the company owning 200 shares of Domestic Water stock and 300 shares of Bear Valley stock. This water is already piped on to a portion of the land and the work of laying pipe is progressing rapidly. Although this is the first public mention that has ever been made of this company, yet its merits have become known and 1400 shares out of 3000 are subscribed. The balance will not hang on the market, for the men who have the matter in hand are going at the work in a business manner.

ORANGE SHIPMENTS.—Citrograph, May 11: From an authoritative source we learn that over 1900 carloads of oranges had been packed and shipped from Los Angeles and San Bernardino counties this year. It is thought that there are about 300 carloads yet to go forward. Riverside alone has shipped nearly 700 carloads and will ship 100 or so yet.

San Mateo.

A BUG IN THE GRAIN.—Half Moon Bay Cor. Times & Gaz., May 11: A month ago we had one of the finest prospects for a large crop, but recently we find that a small black bug has attacked the wheat and oats and retarded the growth to some extent. We also find that the wheat and oats have been struck with the rust a little in certain localities.

Shasta.

COUNTY FAIR.—Redding, May 13: Directors Bush, Ross, Culverhouse, Clinesmidt, Brigman and Reid met to-day and organized Agricultural District No. 27 by electing Bush president, Culverhouse vice-president, Hartley Hodson secretary, and Fred Grotefend treasurer. They appointed Aug. 21st to 23d inclusive for the time of holding a fair.

Stanislaus.

WEST SIDE GRAIN.—Stockton Independent, May 14: County Clerk Yolland returned yesterday from a ride through the grain-fields on the west side of the San Joaquin river from Tracy to a point 14 miles south of Grayson. He says the crop prospects in that section are better now than at any time since 1872, when the yield averaged from 30 to 50 bushels to the acre. The late rain was a great benefit to the west side country, and without it the yield would have been light. On the lands west of the Pescadero grant line, from Grayson to Tracy, the grain looks fine and will probably average 15 bushels to the acre. The crops on the lands near the creeks running out of the Coast Range promise from 20 to 30 bushels. J. M. Ritchie, near Grayson, has 1600 acres of grain that stands four feet high and is headed out to yield about 30 bushels. L. A. Richards, near Grayson, has 3000 acres of average grain and 2000 acres which will produce a heavy yield. Along the foothills from Grayson to Tracy the grain is in fine condition, wheat promising from 20 to 30 bushels and barley from 30 to 40.

Tulare.

TURKEY RANCH.—Lemoore Leader: Wednesday afternoon, through the politeness of W. V. Buckner, we were enabled to visit the turkey ranch of Buckner & Kerr, eight miles southeast of this city. We found E. W. Kerr in charge, and it was truly an interesting sight. In and about the corral were over 1200 little turkeys ranging from three or four hours to as many weeks in age. Mr. Kerr informs us that he has lost almost none, and the birds are remarkably healthy and active. He has about 1200 eggs now under the hens, and will continue hatching into August. He expects under favorable conditions to hatch and raise, this season, between 2500 and 3000.

FOXTAIL IN ALFALFA.—Visalia Times, May 9: Many farmers in this vicinity have mowed down their first crop of alfalfa and are burning it, as a large quantity of foxtail grass is mixed with it. Fires in almost every direction can be seen at night, while clouds of smoke are to be seen ascending during the day.... Foxtail grass has about taken most of the alfalfa-fields in this county—so much so that the cutting of the first crop is labor thrown away. Several farmers have inaugurated the practice of harrowing their alfalfa fields just after the foxtail has commenced to thrive, and by this means have eradicated the destructive weed for the time being, and have saved the first cutting. It is the only plan so far devised for killing foxtail, and should be generally practiced by all alfalfa-growers.

THE RAIN has done more good than harm, the principal damage being to the dry feed. There is a large quantity of grain in the county that is just now in bloom, and the rain will cause it to mature. Of course some early grain has been knocked down, but some of our best judges state it as their belief that where one bushel of grain has been damaged the rain has added four bushels in another quarter.

Ventura.

EDITORS PRESS:—The recent rain will cause the farmers here to recultivate much of the land that was ready for beans. Hay is being cut and is of good quality. Those who have

planted Lima beans find them rotting on account of cold, and another crop will be put in to insure a yield. Apricot trees are not so heavily laden as last season, but fruitmen expect no loss, as the fruit promises to be of superior quality. Beemen are expecting a crop of honey if the weather is sunny through May and June. Ventura county is steadily improving. Churches and schoolhouses are being built. Wells are being sunk successfully in many places where it was thought water could not be secured. Many are putting out orchards and vineyards and improving their homes in various ways.—MAX, Ventura, May 8th.

ARIZONA.

DISCOURAGING TO CATTLE THIEVES.—Hoof and Horn, May 9: The last Legislature amended Section 973 of the Penal Code by adding thereto the following, and the law goes into effect on and after July 1st: All persons not engaged as butchers, who shall at any time kill or slaughter, or who shall cause to be killed or slaughtered, either for their own use for consumption, or for sale, shall retain or cause to be retained in their possession, the hides taken off said animal or animals with the ear-mark attached thereto, without any alteration or disfigurement of the brands or marks on said hides or ears for the period of 21 days, free to the inspection of all persons. Any person failing to keep the hides in this manner, and for the time above mentioned, or who shall refuse to any person the inspection of said hide or hides, shall be guilty of a misdemeanor, and upon conviction shall be fined in any sum not exceeding \$200.

OREGON.

MONGOLIAN PHEASANTS.—Oregonian: Dr. Lane, superintendent of the State Insane Asylum at Salem, says that Mongolian pheasants are quite numerous on the grounds of the asylum and all around the outskirts of town. He says they increase with great rapidity, and there seem to be 25 now where there was one last year. He thinks they have come to stay, for they are sly, cunning birds, very difficult to shoot. In driving out into the country around the asylum, the pheasants can be seen in nearly every field. The males flap their wings and crow like young roosters, venture boldly into barnyards and whip any ordinary dunghill cock in fair fight. If all that is told concerning these birds is true, they will afford considerable sport already, for they are shot openly, despite the law, in many places.

"SPUDS" A DRUG.—Oregonian, May 10: Many farmers have given up all idea of finding a market for their potatoes. Dealers say that at least three-fourths of the entire crop remains in the hands of the producers. Of course potatoes cannot be had for nothing in this city, but dealers are supplied and a farmer bringing in any quantity could not find a market for them at a price which would pay for the sacks and hauling. So many farmers are literally throwing potatoes away. Mr. Tyszkiewicz of Bachelor Island has dumped 350 sacks of as fine Burbanks as ever were seen into the Columbia. This sort of thing is likely to discourage farmers from planting potatoes, and next year when they have only a few the price will, perhaps, be away up. People who get rich by raising potatoes, and there are quite a number in the vicinity of this city who have done so, plant them every year, regardless of the price, and they make by it in the long run.

THE FIRST OREGON STRAWBERRIES of the season came from Fulton Park this year and were displayed in Baum & Brandes' window on Saturday, and very fine ones they were, too. Yesterday 30 pounds of fine large berries were brought in from Mount Tabor.

WASHINGTON TERRITORY.

CROP OUTLOOK.—Spokane Falls, May 8: Reports from over 25 points in Palouse Valley and the Big Bend country say there was never a better prospect for crops. There is over one-half more acreage than last year. Recent rains have done immense good. The O. R. & N. Co. has erected elevators along the line at the principal points. Formerly all the wheat was shipped in sack at heavy expense to farmers, but now will be shipped in bulk and sacked at Portland. N. P. officials say their road will probably adopt the elevator system in this Territory in the wheat sections also.

BERKSHIRE SALES.—Phil M. Springer, Springfield, Ill., sends us information of transfers of thoroughbred stock reported to the "American Berkshire Record": Jack Ripper 21179, by Tyler Beach of San Jose, Cal., to John S. Conner of Santa Clara, Cal.; Stockton Chief 21217, by Andrew Smith of Redwood City, Cal., to A. B. Sperry of Stockton, Cal.; Lynwood Prince 21219 and Lynwood Princess 21220, by Andrew Smith to Sessions & Bigelow of Los Angeles, Cal.

AGRICULTURAL DIRECTORS have been appointed by the Governor as follows: District No. 13, W. F. Ellis, Jr., of Yuba county vice James Littlejohn, resigned; District No. 20, J. T. Howard of Placer county vice Hollis Newton, who failed to qualify; District No. 27 (Shasta county), C. C. Bush, Jerry Culverhouse, A. C. Brigman, Henry Clinesmidt, H. F. Rose, T. W. H. Shanahan, C. J. Becker and E. A. Reid.

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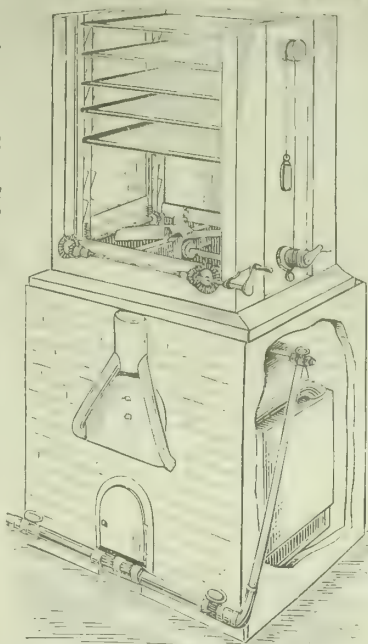
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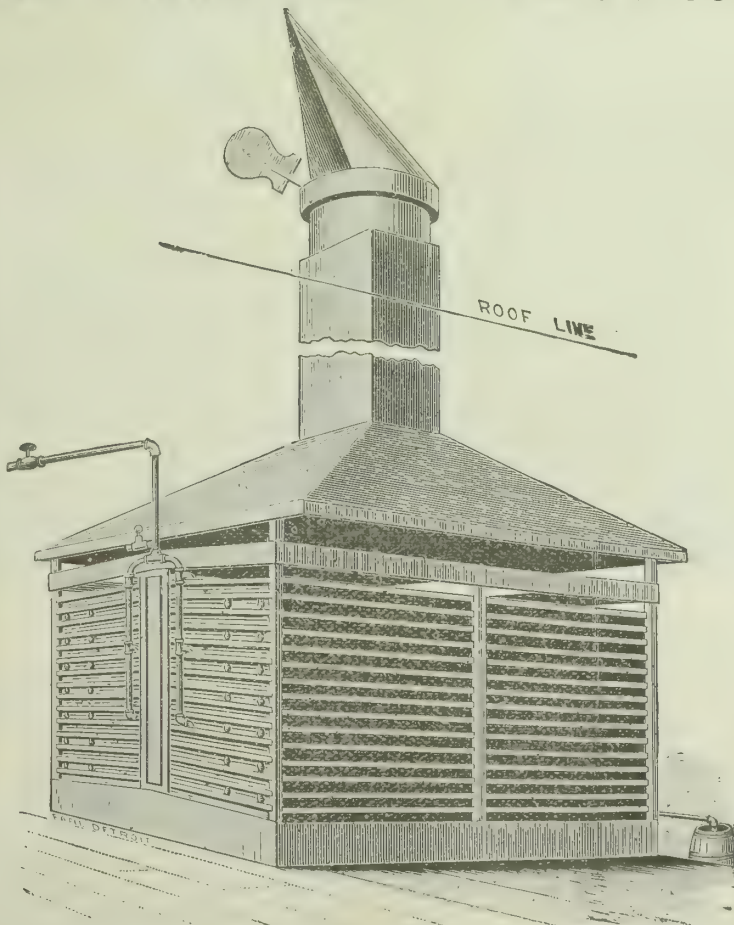


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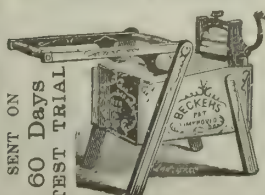
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ROOMS WITH OR WITHOUT BOARD.

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J. POOLEY.

Fresno County.

[From Our Own Correspondent]

Fresno contains nearly 8000 square miles of territory, or about 5,000,000 acres. It stretches from the summit of the Sierra Nevada mountains on the east to the summit of the Coast Range on the west, and from Merced county on the north to Tulare county on the south, making it the third county in area in California. Of the 8000 square miles which go to make up Fresno county, about 3500 square miles are valley land, and the remainder is either foothill or mountainous. The eastern one-third of the county constitutes the watershed of Kings river and a part of the watershed of the San Joaquin river, both great mountain streams that debouch upon the plains near the center of Fresno county, and carry water enough to irrigate, easily, the whole of the San Joaquin valley proper. To the east lie the great Sierras whose tops run up into the regions of perpetual snow and act as great unfailing natural reservoirs for the storage of water in winter for use in irrigating the plains in summer.

trading point of a large scope of country—in fact, it has no worthy rival between Merced and Fresno, a distance of 55 miles, and it is nearly midway between these larger cities. The country on all sides is of exactly the same character as that about the other growing towns in this part of the State, and there are the same reasons for growth in Madera as prevail in the case of Fresno, Merced or Modesto. The soil of the valley is a rich, sandy loam, of great fertility, when sufficiently watered by Nature's showers or by artificial irrigation, and the day is not distant when thousands of acres near Madera will be reached by irrigating ditches and the productiveness of the region multiplied many times. At present, irrigation is adopted only to a limited extent. Not many miles south of Madera the railroad crosses the San Joaquin river, which stream, from its sources in the Sierra Nevadas, makes a circular detour into the great central plain of the State, changing its westerly course to one more northerly. The same course is followed by two or three tributaries between Madera and the San Joaquin. Thus the entire northern part of Fresno county would seem to be well situated for favorable irrigation, and we predict a day when many canals will afford ample facilities for the thorough watering of this section of the State.

The most notable institution in Madera is

the Yosemite hotel, a fine brick structure close to the depot. Mine Host Ripperdan runs a hotel of great credit to himself and the town in which he lives.

FRESNO.

Probably there is no city in California today which is having so great a proportional growth as Fresno. Its boom began almost as early as the greater boom in Los Angeles and Southern California. It was not characterized by the wild excitement of other real-estate crazes, but has seemed to show staying qualities not enjoyed by any other boom in the State. The appreciation of Fresno's advantages was slower in coming than appreciation in some places, but once it came it has remained a fixed factor. We confess to a great curiosity to see this young city as we rode into it during one of the beautiful days of February last. We were anxious to see what manner of city this was which was commanding the attention of the whole coast, and which was spoken of as the predestined abiding-place of thousands of our people. We felt a desire to see for ourselves the evidences of Fresno's growth, and if possible analyze the causes of that growth and prosperity. Certainly the first view was not disappointing, nor did the picture painted by our fancy been overdrawn. The streets were thronging with busy, hurrying people; new

street is rapidly improving—thus making the better business portion of the city, between the depot and the court-house, nine blocks in extent. Within this radius nearly all the best buildings are located, and nine finer blocks, representing greater wealth, it would be hard to find in a half-dozen other cities in California.

A Great Fruit Region.

Without doubt Fresno owes its late growth to the fact made known to the world that it is located in the midst of one of the most favored fruit regions in the United States. The fruit raised most successfully here is the grape, and from Fresno grapes the finest raisins in the world are made, and some of the best wine. But it is as a raisin-producer that Fresno county is chiefly celebrated. By irrigation, fruit and cereals of all kinds can be grown with success; but the conditions of soil and climate are so pre-eminently favorable to the grape that this fruit is raised to a much larger extent than any other. There are no dews here at night, so that sun-dried raisins can be cured with the greatest perfection. There are also no damp winds to mildew or discolor the growing grapes, and there are proper elements in the soil and a genial warmth in the climate to impart a greater degree of sugar to the grape than in other parts of the State. The possibilities



A BIRD'S-EYE VIEW OF FRESNO AND ADJACENT COUNTRY.

Between the points at which Kings river and the San Joaquin come out upon the plains are constructed many large irrigating canals carrying pure, fresh mountain water, which is used in irrigating the lands lying between these streams. The lands thus irrigated lie in the shape of a delta, having its northern line running a few miles to the north of Fresno City, its southeastern margin bounded by Kings river and its southern bounded by the San Joaquin slough. This delta, or irrigated district, embracing about 600 square miles, is the easiest irrigated body of land of equal area in the world. Of this area a portion has been irrigated and put in cultivation, and the whole is susceptible of being irrigated and put under a high state of cultivation.

MADERA.

Traveling southward by rail, the first town of any considerable importance in Fresno county which the traveler visits, is Madera. It is 30 miles south of Merced. Before the construction of the railroad now being extended toward the Yosemite Valley—which branches off from the Southern Pacific at Berenda, a few miles north of Madera—the latter point rivaled, if it did not surpass, Merced in equipping excursion parties for a trip to the famous valley. A fine brick hotel at Madera, called the Yosemite House, and a large stable at the same place, are reminders of the former prominent feature about the town. But Madera has continued to prosper since it was first plotted. It is the principal

the Flume and Trading Co. of that place. The factory of this company is the most extensive establishment of the kind between Stockton and Los Angeles, surpassing anything in Fresno. Lumber is brought from the mountains in a flume 65 miles long. Here at Madera it is worked up into doors, sash, blinds, fruit-boxes, etc., and is exported to other points in the State. There are 30 to 35 men employed at the factory, while 50 to 75 men do duty in the mountains in cutting and sawing the logs. W. O. Breyfogle, assisted in the factory and yard by T. A. Pulsifer, attend to the interests of the company in Madera. This is an institution which contributes greatly to the prosperity and stability of the little city in which it is located.

Trade, Population, Etc.

There is no mercantile institution of overshadowing importance in Madera, but many dealers with moderate capital share the natural trade of the tributary region. The flume company has a general store, but it does not, and does not aim to, monopolize trade. Every dealer seems to have a fair show. Thus we see a better representation of special lines than is usual in small places. There are few reasonable wants which one cannot gratify in the stores of the town. The population of Madera is about 1000. It gives promise of growing to many times that population when this country is developed to the extent it unquestionably will be in the future. There are chances for good investments in land in the vicinity of Madera, and we understand a colony is projected in this locality. While examining the country, no more comfortable stopping-place could be found than

buildings were going up on every hand; the noise of hammer and saw contributed to a business din, while completed structures, solid and handsome, reared their finished brick walls and pointed towers into the noisy air. To be sure, this business bustle and building activity was largely concentrated within a radius of eight or ten blocks, but it indicated a lesser activity which extended over a much larger area, and proved that the city was thoroughly awake and making rapid strides toward a position well in advance among California towns. The present population of the city is already 10,000. With the present moderate impetus continued for a few years, who can predict its population, say at the taking of the census in 1900?

Business Portion.

Like other towns in Central California plotted by the railroad company, there is a reservation on either side of the track, and on one side of this reservation, for a distance of three blocks, the front is well lined with business houses, stores, factories, etc. The principal street of the city extends from the depot to the Court-house square—three blocks. This street is lined with stores the entire distance, some of them being very fine structures. The new First National Bank building—an elegant brick block—and the Grand Central hotel, are on this street. Parallel with this, on the south, is another street, which is beginning to rival the thoroughfare first noticed. On this street are the Hughes hotel, the Hughes block—both solid, fine structures—the Masonic block and two equally fine brick blocks now nearly completed. On the north, another parallel

of the Fresno country were demonstrated by the success which attended the colonies established here many years ago. These colonies were deemed by some experimental at first, but they have been successful without exception. This success excited the attention of the country, and as the colonies thrived the city of Fresno grew apace, until this growth took the form of a modern boom, and the city sprang to considerable prominence at a bound.

The history of the Central California Colony epitomizes that of all the colonies of all the counties of the great valley of Central California. It was devised and established by B. Marks, formerly of the Lincoln Grammar School of San Francisco, on land belonging to Wm. S. Chapman, at that time the largest landowner in California. This was the first of the 22 similar colonies which now cover with beautiful green the once dull-brown plain. In 1875, the land occupied by this the pioneer colony of Central California, was an extended plain of dried grass having the appearance of a vast waste of desert sand. As far as the eye could see, not a tree or bush, or tall weed was there to mark a spot on the sandy plain. A very few shepherders' cabins dotted the seeming desert, but so far apart that each was concealed by distance from all the rest. The town of Fresno was only about two years old and did not then give promise of the prosperous city she has since become. About three miles south of the town 200 farms of 20 acres each were surveyed and staked off, 23 miles of avenues were laid out, 32 miles of choice trees were planted on the avenues, 14 miles of canal and 40 miles of ditch were con-

structed. All this was done within two years from the time of commencement. The avenue trees consisted of four miles of almond-trees on Almond avenue, four miles of cherry-trees on Cherry avenue, four miles of fig-trees on Fig avenue, and so on for Elm, Walnut, and other avenues. Most of the colonists were Californians. Few of them were farmers. They were mostly teachers, book-keepers, mechanics, doctors, and business men. Some of the settlers were women. All were successful.

In addition to the Central colony Mr. Marks bought of the Bank of California, planned and established what is now known as the California colony. This also was a pronounced success. Incited by the prosperity of these pioneer colonies, a number of other colonies were projected. All met with unqualified success, and now one may ride through many miles of beautiful avenues lined with choice shade trees and presenting to the delighted eye an unbroken succession of thrifty homes so near together that the aspect is that of the suburbs of a large city. Each 20-acre farm, fronting only 660 feet on the avenue, is embellished with its cottage, barn, poultry-house, milk-house, inclosures for cows and calves, orchard, vineyard, vegetable garden, flower garden, and all the usual accessories of happy rural life.

Surrounded thus by colonies growing each year more prolific, it is no wonder that Fresno is taking on the airs of a city. Thousands of dollars are disbursed annually to the fruit-raiser of the county, and this wealth stimulates trade and enhances the value of all properties.

A Progressive Town.

It is needless to enumerate with particularity the various institutions of Fresno. She has all the characteristics of wide-awake sisters in other parts of the State, except that in many instances these features are intensified by her present activity. Water works, gas, electric light, street railway, fine hotels, concentration of capital in banks, growing wholesale houses, immense retail establishments, fine public schools, modest manufactories, etc., etc., are all here. A good courthouse stands prominently in the center of a large reservation or park, which gives a pretty view to the eastern part of the city. At least 15 to 20 fine brick buildings are in course of construction at the present time. A few of these are outside of the limits mentioned in the former part of this letter, and indicate the speedy expansion of the business quarter of the city. The style of architecture adopted in many of the leading buildings is attractive in the extreme. Brick walls are relieved by trimmings of yellow sandstone or white granite, and pointed towers finish the upper stories of corner buildings. There is a commendable pride among the builders to erect handsome structures, and those now about completed are models of their kind. The Hughes hotel is one of the finest hostleries in the central part of the State. The Hughes block, on the opposite side of the street, is another monument to the persistence and success of that pioneer of Fresno, Thos. E. Hughes, who pinned his faith to the city before it was more than a hamlet, and who has been rewarded by great wealth as a return for his accurate judgment. Fresno is noted for its good spirit and hospitality. It entertained the Native Sons in royal style last year, and it is about to entertain in equally good shape the Grand Lodge of Knights of Pythias. These things indicate the character of the people, who are public-spirited and wide-awake. There is something in the air of a growing city which prompts to liberality and breadth of view, and this is as noticeable in Fresno as in any city we have visited.

SELMA.

Selma, the principal town in southern Fresno county, was laid out in 1880, and originally consisted of a town plot of 40 acres. J. E. Whitson, E. H. Tucker, M. Snyder and G. B. Otis took the initial, and after having the town surveyed petitioned the railroad company to give them a side-track and depot. They were told that the point was of so little importance as a shipping point that unless the petitioners would pay the company the estimated cost of the proposed side track, or \$700 the town of Selma would not be made a stopping-place on the railroad. The above-named gentlemen under the most discouraging circumstances raised and paid to the company the required amount, and the town of Selma was numbered among the stopping-places on the line of the Southern Pacific railroad. From this small beginning the early citizens of Selma, without money or credit, have succeeded in building up one of the most flourishing young cities in the great San Joaquin valley and one of the most prosperous communities in the State.

Resources.

Selma is situated on the line of the Southern Pacific railroad, 15 miles southeast of

Fresno and 222 miles from San Francisco. It has at present writing about 2000 inhabitants, and at no time in its history has it grown as rapidly as during the past year. The town plot now consists of the original 40 acres with some 20 additions. These tracts embrace each from five acres up to 80 acres, and are being gradually sold off into town lots and some of them improved. Selma's growth for the past three years has been phenomenal, and yet it has not been the result of an exciting boom, but has sprung from a steady, healthy development of the resources of the country and the demands of business. All realize that the great wealth of the soil of the surrounding country has as yet been practically undeveloped. The thousands of acres of fruit trees and vines put out upon the lands in the vicinity of Selma have not yet come to bearing age, properly speaking, and begun to pour their treasures into the laps of the land-owners or exert the influence they are destined to have upon the business and commerce of the country. As the surrounding country is developed and its lands put under proper cultivation, as the trees and vines come to maturity, and as people learn how to make the most out of the soil and water, business will increase at Selma, new lines of industries will launch and new enterprises will come to the front. The outlook for Selma is certainly very bright. The country surrounding her will warrant the building up of a great commercial center. At this time Selma has 10 general merchandise stores, 1 harness store, 3 stove and hardware stores, 4 drug stores, 1 grocery store, 1 gent's furnishing goods store, 1 cigar store, 1 furniture store, 1 music store, 2 millinery stores, 3 dressmaking establishments, 1 undertaking establishment, 1 photograph gallery, 1 planing-mill, 1 flour-mill, 1 nursery, 1 gas-fittings and plumbing, 2 lumber yards, 2 wood and coal yards, 1 city hall and theater, 3 hotels, 3 restaurants, 4 barber shops, 5 livery stables, 6 blacksmith shops, 3 butcher shops, 1 local paper (the Selma Irrigator), 1 mattress factory, 1 agricultural implement house, 2 public water-works systems, 1 schoolhouse, 6 churches, post telegraph and express offices, 10 real-estate offices and a bank.

Population, Etc.

The present population is over 1000, 90 per cent of which has come in the past two seasons. Over 250 pupils are enrolled in the schools, and additional school buildings will be erected soon. The churches are well attended and free from debt. The grade of the town is such that drainage is complete and the sanitary condition perfect. In a word, the people of Selma enjoy all the advantages of a fertile section, with good climate, good health, good churches, good schools and good society.

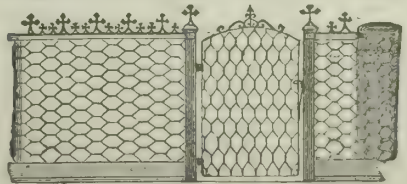
To a person with a moderate amount of capital this section offers great inducements. Here the lime and the olive, the citron and the orange beautify the face of nature, and flowering shrubs and plants in great variety bloom unprotected in the open air 12 months in the year. Here the rose is perpetually in blossom and a bouquet of choice flowers may be gathered at any time of the year.

To those accustomed to snow and ice this may seem like a fairy tale, but it is only an evidence of climate difference. If you are energetic and industrious, and desire a home at moderate cost in such a locality, the people of Selma will welcome you to their midst.

H. G. P.

The supervisors of Fresno county have granted the petition for the establishment of the Sunset Canal Irrigation District. This will seriously affect the West Side Irrigation District, as it removes over 100,000 acres from that district as planned.—*Modesto Herald*.

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HONESTY AND INTELLIGENCE.

It pays to be honest, you say. Granted.

Yet how many are dishonest through ignorance, expediency, or intentionally. One can be dishonest and yet say nothing.

A clerk who lets a customer buy a damaged piece of goods, a witness who holds back the truth which would clear a prisoner, a medical practitioner who takes his patient's money when he knows he is doing him no good, are all culpably dishonest.

Speaking of the dishonesty of medical men reminds us that only the past week there has come under our personal observation a form of dishonesty which is almost too mean for narration.

It is generally known that doctors bind themselves by codes, resolutions and oaths not to use any advertised medicines. Now, there is a medicine on the market which, for the past ten years, has accomplished a marvelous amount of good in the cure of Kidney and Liver diseases, and diseases arising from the derangement of these great organs—we refer to Warner's Safe Cure. So widespread are the merits of this medicine that the majority of the doctors of this country know from actual evidence that it will cure Advanced Kidney Disease, which is but another name for Bright's Disease.

The medical profession have put themselves on record as admitting that there is no cure for this terrible malady, yet there are physicians base enough and dishonest enough to procure Warner's Safe Cure in a surreptitious manner, put the same into plain, four-ounce vials, and charge their patients \$2 per vial, when a 16-ounce bottle of the remedy, in its original package, can be bought at any drug store in the world for \$1.25.

Perhaps the doctor argues that the cure of the patient justifies his dishonesty, yet he will boldly stand up at the next county medical meeting and denounce Warner's Safe Cure as a patent medicine, and one which he cannot and will not use.

The fact is that the people are waking up to the truth that the medical profession is far from honest, and that it does not possess a monopoly of wisdom in the curing of disease; doctoring the many symptoms of kidney disease, instead of striking at the seat of disease—the kidneys themselves—allowing their patients to die rather than use a remedy known to be a specific, simply because it has been advertised, and when patients are dead from Advanced Kidney Disease, still practicing deception by giving the cause of death in their certificate as pneumonia, dropsy, heart disease, or some other accompanying effect of Bright's disease.

All this is *prima facie* evidence of incompetency, bigotry and dishonesty.

We speak but the truth when we say that Messrs. H. H. Warner & Co. have done a most philanthropic work for the past ten years in educating the people up to the knowledge they now enjoy, especially of maladies growing out of diseases of the Kidneys and Liver, and are deserving of all praise for their honesty and straightforwardness in exposing shams and dishonesty of all kinds.

"De man wot knows it all is alluz a-makin change, a-buyn' ob experience." The man who does not think that he "knows it all" about Pumps can find out a great deal about them in *Grimshaw's PUMP CATECHISM*. By mail, postpaid, \$1. Dewey & Co., 220 Market St., S. F., Cal.

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Spend a V in providing such books as the above, and also the genial **College Songs** (50 cts.), **College Songs for Banjo** (\$1) for Guitar, (\$1), or **War Songs** (50 cts.), or **Good Old Songs** as used to Sing (\$1), or one or more of our excellent Glee or Chorus collections. (See Catalogues.)

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A. T. DEWEY, W. B. EWER, GEO. H. STRONG.

THE DAIRY.

Stony Creek for Cream Gathering.

EDITORS PRESS:—Being used to gathering cream beyond the Rockies, I will try to select the choicest suggestions received on a late trip down the promising valley of Stony Creek, and show how cream gathering is practical there. From the Sacramento to its home among the mountain canyons this stream runs for 60 miles; in summer, large enough to wash your buggy hubs for the width of the road where the current runs as fast as you walk; during the winter rains, an angry torrent. Now the valley broadens out into a wide strip of benchland, whose soil is shown by massive oaks. Again it narrows down to a canyon where the grade is hewn from the rocks. Every now and then you see a beautiful field of alfalfa or a family orchard where nature deserves more praise than man. To an artist, the park-like benches, the wild growth along the stream, the rocks, the hills, rising range above range until snow-crowned Sanhedrin or St. John mingles with the clouds, it shows a picture of ever-varying interest.

To the farmer the first view is unfavorable. No chance for broad fields of wheat or rich pasturage for stock, and the unimproved lands along the stream where the boulders and willows are most marked give the idea of hard work and little pay. The alfalfa-fields yielding a heavy crop every five weeks from such land show that there is something better here than appears at first, and by gathering a fourth as many tones as would be common on a field in the Atlantic States and grubbing out a little underbrush, the plow and scraper will soon show the soil and a few rods more or less of ditch bring in the water that throws up such vegetation on those alfalfa-fields. The subsoil affords such drainage that the malaria common to many irrigated sections is only known here where they are so careless as to use water from wells affected by irrigation; and, as the water finds its way back to the main channel, the more they use above, the longer it takes for that part to find its way down stream, and so people farther down find that their water holds out better late in the season. As the strip of land easy to be irrigated will hardly average more than half a mile in width, there is not the danger from scarcity of water that the present suit between land and mill owners at Smithville would indicate.

Mr. W. M. Jamison last year kept 22 cows from which he sold \$1100 worth of butter. He thinks that by soiling there would be plenty of feed for two cows the year around on the acre, and would be inclined to say three. We estimated it at one man's work to cut and haul the grass for 100 cows, besides doing his share of the milking.

A neighbor, Mr. Polley, has nearly as good a stand of alfalfa in a grove of oaks. From one of the little trees his men gathered about 15 bushels of acorns. He says these will fatten hogs faster than any other feed, but did not say how much a big tree or an acre of the grove would yield. At that point there is danger for both fruit and grain from late freezes occasioned by northwest winds blowing from the melting snows on the mountains. As you go down stream the danger grows less.

Now the bulk of this 20,000 acres of cream land is yet either unimproved, is in China gardens, or in wheat-fields and pasture. Hence low rates prevail. Individual water rights, freedom from malaria, and its yield of fruit and alfalfa are further attractions to newcomers who want to begin with chickens, pigs, cows, and fruit, and make a big farm of ten acres. At this point the poor market for farm butter and the difficulties of dairying in a warm climate arise.

The Co-operative Creamery

Can meet them. This plan has been gaining ground in the Western States and is substantially this: Farmers owning together 500 cows or more, and living not farther than 20 miles from some common point, subscribe about five dollars stock to each cow kept, form an incorporated company, build and equip a creamery, hire a buttermaker and one or two cream-gatherers, and divide proceeds from sales of butter once or twice a month in proportion to the butter value of cream furnished as shown by the test churn. When as many as 50 cows are near enough together so that their milk can be easily brought to a common point, it seems that a centrifugal separator is best, but beginners and scattered farmers can do far better than with pans by using a common cooler pail 8½ inches across by 20 inches deep in a tank of cold water. These will cost not more than \$1 per cow. [But how can you easily get sufficiently cold water for deep setting?—Ebs. Press.]

The sooner the cold water is applied and the more rapidly the temperature reduced after milking, the better will be the cream separation. Under most favorable conditions it approaches closely the yield from the separator. An abundant spring or well of cold and pure water is almost essential to a creamery, and an alfalfa field of 5 to 10 acres, so that grass and butter-milk can be supplied for pigs, is a valuable adjunct.

Good Points for Creameries.

As market and conveniences for making butter are now poor along the Sacramento river in Colusa county as well as along Stony creek, we

think creameries will be well located at Elk Creek, Orland and Colusa.

The introduction of creameries into Iowa did much toward driving out the credit and bringing in the cash system of trade, and in many places the land doubled in values within three to five years of their introduction. It turned the attention of farmers from uncertain to comparatively sure crops and more than doubled the average net income. In this way many a large land-holder was more benefited than the total cost of all the creameries in his county.

The regular gathering of fresh eggs and their shipment was almost as much a gain as the cream gathering. The element of uncertainty is not so important a factor in eggs gathered regularly and marketed promptly as where nests are found by chance among the grass and weeds, kept about the house until some one happened to be going to town, and then kept in a hot stove until the boys have time and feel like packing and shipping them. Some who are making a business of poultry and send in eggs regularly are now getting five cents per dozen in advance of rates ruling for store eggs.

First the Dairy, Then the Orchard.

With a cash market at their doors for cream and eggs, farmers could settle on a small piece of land and have an immediate income and afford to invest their savings in trees and wait their coming into bearing. It remains for us to learn how the proposed sale of villa lots in this section can succeed. With subdivision resulting from such enterprise as we have outlined, towns would be demanded and have a natural growth. Farmer, merchant and land-holder are alike interested in such booming.

FRANK S. CHAPIN.

Answers for the Arizona Inquirer.

EDITORS PRESS:—I submit the following points in reply to your Arizona correspondent whose letter was published in the Rural of April 27th:

1st. One hundred and fifty lbs. butter or 400 lbs. cheese would be a fair annual yield for common dairies. A very few would double that, and statistics for a State figuring in all cows milked, vary from 71 to 125 lbs.

2d. Good dairies, or creameries, making uniformly first-grade goods, can hope for an average of about 20 cents in open market for butter. Farmer's store butter will go at half that, and for those who have reputation for a fancy grade which they supply to private consumers, especially when principal make is in winter, there is a wide margin.

3d. To milk and care for stock in a large dairy and raise the feed, not less than four good men should be employed for the hundred cows.

4th. Ten dollars is a fair average value for a good dairy yearling. This average of \$40 gross per cow may not be a flattering outlook. No one has to be an average dairyman. Test your cows. Weed out the poor. Breed up the good. Remember it takes so much to keep a cow alive and that profit must come from what she consumes beyond that. A dairy cow will produce as she consumes and a beef cow will grow as she eats. H. B. Gweler of Dekalb, Ill., says a cow must yield 150 lbs. of butter to pay her year's keeping with him. So he draws a dead line, casts out the worst and says one cow yielding 250 lbs. pays him as well as ten yielding 160 lbs. each. CREAMERYMAN.

Eucalyptus as an Antiseptic.

The London Globe describes some experiments regarding the antiseptic properties of eucalyptus, made at Rome by Count Luigi Torrelli. The results are interesting and suggestive.

A number of tin pannikins were filled with pure spring water and various leaves, such as oak, orange, lemon and grass, immersed in them; also eucalyptus leaves and bark. Gradually, but at various intervals, the leaves and water showed signs of putrescence and had to be thrown away. The oak leaves preserve the water for some time, but the water in the pannikins with the eucalyptus leaves and bark remained perfectly palatable after the lapse of more than four months.

The Count also placed some meat in water with leaves of the eucalyptus globulus, and in another pan a piece of veal in plain water. After 74 hours it was found that where the veal had been merely soaked in water the meat had become putrid and decomposed the water. The water in the pan treated with eucalyptus leaves was colored, and had a slight smell and taste of leaves, but was quite good; and the meat was found in excellent preservation, and when cooked was eaten with much relish. The Count then wrapped some veal with a slight taint in a profusion of leaves of the eucalyptus globulus. At the end of three or four hours he cooked the veal in the ordinary way, and it was pronounced excellent and tender.

PROFIT IN POULTRY.—William G. Ford, who resides in Washington colony, says one acre of hens is more profitable than 20 acres of grapes. His Golden Gate incubator hatches 75 per cent of the eggs, and works satisfactorily without special attention. The lowest price he receives for eggs is 15 cents per dozen, and the highest 50 cents. Lowest price for fowls, \$4 per dozen, and highest, \$11. Mr. Gifford finds pigeons very profitable also, as they require very little care and bring \$2 50 per dozen.—Fresno Republican.

THE FIELD.

The Wheat-Growing Problem of the World.

The British Quarterly Review, in a recent article on the future prospects of the British farmer, said that after so many years of unremunerative prices, many are disposed to regard their struggle with foreign and colonial competitors as hopeless, and it has been asserted that even if they had not to pay any rent, they could not grow wheat with profit. In 1883 the average price of wheat in England was considered very low at \$1.31 per bushel, but the next year it fell to \$1.11 and in 1886 to 96 cents, and in 1888 to the lowest figure yet recorded, 94 cents. At such beggarly returns no wonder the unfortunate husbandmen of Great Britain have at last almost decided to throw up the sponge, and are looking after other means of making a living. From the reports of 85 wheat-growers in 11 counties it appears that the average expense of cultivation is \$42 68 per acre, and the receipts \$42 per acre, or a loss of 68 cents, presuming wheat to be worth \$1.12 per bushel; so that the loss during the past two years must have been very serious indeed.

In the Western States the expense is estimated at about \$10 or \$11 per acre, and in some parts even less, so that when the vast productive area of the United States is taken into consideration, the statement that North America produces one-fourth of all the wheat grown throughout the universe may not be so wide of the mark, although it need not be inferred that the American farmers make more than a bare living at such prices; in fact, one has only to casually glance over the newspaper to become aware that there is a vast amount of grumbling among them on account of the low prices obtained, and that the greater number of the farms are heavily mortgaged. The increase in the wheat yields of the United States will be readily seen from the following:

	Bushels.
1850.....	100,485,944
1860.....	173,104,924
1870.....	235,884,700
1880.....	445,000,000

At the present time only 15 per cent of the wheat is grown in the Eastern States, the New Englander finding it cheaper to import it than to raise it. The possibilities of the future may be faintly gauged from the fact that the present acreage in wheat is about equal to the State of Alabama, so that for many years Great Britain's breadstuff supply will be exported from this country, unless it can be purchased at a cheaper rate elsewhere. Concerning the long threatened competition from India, where labor is so cheap, it has not yet reached the proportion expected, the dirty condition of the grain affecting its sale somewhat, and its lower value by a few cents per bushel is made up by the extra freight charge over that on American grain. The first export of Indian wheat was 20 years ago, when the quantity was 559,000 bushels, which had increased in 1876 to 4,687,000 bushels, in 1881 to 13,896,167 bushels, and for the last six years the average export has been 35,530,000 bushels.

The average yield of wheat in India has been placed at 14 bushels, which, after allowing for the home consumption, means a surplus for export of 66,000,000 bushels. The relative condition of the two countries stands thus:

	United States.	India.
Population.....	80,000,000	200,000,000
Area, square miles.....	3,000,000	1,400,000
Miles of railroad.....	135,000	13,300
Wheat acreage.....	34,000,000	26,000,000
Average crop 1883-86, bushels.....	437,000,000	200,000,000
Export of wheat, 1887, bushels.....	432,000,000	39,012,000
Total exports, 1881-86, bushels.....	800,000,000	175,000,000

From this it will be noticed that the United States raises 7 bushels per head of its population, and India only 1 bushel; India has only 1 mile of railroad to 20,000 inhabitants, while this country has 1 mile to 435 people. What with the expense of irrigation, the terrible droughts that often devastate India, the crude method of conducting farming operations, etc., it may safely be asserted that in the immediate future, if indeed at any time, India will not prove a formidable factor in the European wheat markets. From the mighty and vast Empire of Russia will come the keenest rivalry in furnishing Britons with their daily bread. In 1886 Russia's foreign exports of breadstuffs were 86,150,000 bushels, which increased to 123,800,000 the next year, and in 1888 to 172,870,000 bushels, and it must be borne in mind that this industry can be almost indefinitely augmented without difficulty, while the Argentine Republic in a few years will export grain on a very extensive scale.

If the production of cereals is hopeless in Great Britain, their conversion into flour will be performed by British millers, since they have recently adopted the latest improvements in the requisite machinery, and they have the world's wheat supply offered to them. Their profits are not large, but sufficiently good to induce them to continue the business, and to employ labor. Even when the English market is glutted with American flour, the odds are on the side of the English miller. Cargoes off the coast are generally to be purchased on better terms than from the farmer or merchant, and the scorings fetch four times as much as they do here, and this disadvantage the American miller has so far failed to overcome. Not long ago a flour trust was planned in England, when several of the leading mills were inclined to join the combination.

The Deficiency in the Australian Wheat Crop.

Mr. Brett, one of the best-known and most successful of colonial journalists, who has been commissioned by the New Zealand Government to represent Maori land at the Paris Exposition, recently arrived in this city on his way to Paris. During his stay here he visited a number of our best fruit and wheat growing localities, and contrasted the same most favorably with similar localities in Australia.

To a reporter of the Call he alluded to the present drought in New South Wales as something which presaged most disastrous results, particularly to the wheat crop of that country. He says the Government statistician there estimates the shortage as not less than 6,143,000 bushels on the average of crops for the last 20 years, incurring a loss to the farmers of fully \$4,500,000.

This shortage will call for a large increase of imports over those of previous years. New Zealand can supply only a portion of this demand. In regard to the California supply, Mr. Brett said: "Your flour is popular there, but we in New Zealand have the advantage of proximity, and so long as the present rates are maintained here your shippers will be unable to land wheat in Australia for less than \$1.39."

"The moment the English market falls, however, say to 39s, and provided New Zealand wheat should be selling at above 5s, say 5s 6d, then Californian growers could successfully compete with New Zealand growers; otherwise we have not much to fear."

"But the falling off is not confined to wheat alone. Oats have decreased to the extent of 7 bushels per acre, potatoes 3.09 tons and hay .75 tons per acre. There is opportunity for exhaust in these articles also."

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING APRIL 30, 1889.

402,382.—FLY-CATCHER—Albert Arents, Alameda, Cal.

402,400.—WRENCH FOR SAW TEETH—Frederick W. Cook, S. F.

402,474.—LUBRICATOR—W. H. Cooper, San Jose, Cal.

402,408.—RAILWAY TELEGRAPH—F. J. Crouch, Oakland, Ogn.

402,462.—GRAIN SEPARATOR—M. N. Laufenburg, Stockton, Cal.

402,471.—MOTOR—Hans M. Olsen, Sacramento, Cal.

402,189.—LAWN-MOWER ATTACHMENT—H. Peterson, Berkeley, Cal.

402,194.—STRAP LOOP—A. C. Reeves, Palouse, W. T.

402,479.—VARIABLE ECCENTRIC—D. L. Remington, San Leandro, Cal.

402,279.—PHOTOGRAPHIC PAPER—F. H. Rogers, Los Angeles, Cal.

402,208.—SNATCH BLOCK—A. Uren, Seattle, W. T.

402,496.—TENSIONAL SOUND BOARD—C. S. Weber, San Jose, Cal.

16,541.—TRADE MARK—Nushagak Canning Co., S. F.

NOTE.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

THE SWEET CASSAVA, which is closely related to the castor bean, has been grown very successfully on the sandhills of Florida. Garden and Forest describes the mode of cultivation and enumerates the uses it is put to: "It may be converted, with scarcely any waste, into starch, tapioca and glucose. In the tropics, cassava flour is used extensively for making a large water or cracker, which is quite palatable, and keeps without injury for months. Florida housewives have used it for making bread, puddings, custards, fritters, jellies, etc.; also as a vegetable it is used in all ways in which Irish potatoes are used. * * * It is greatly relished by cattle, horses, hogs and poultry, and seems to be a very wholesome article of food. The great tubers, sometimes three or four feet in length, may be taken from the ground at any time of the year and used as food by man and beast." The cassava has been tried from time to time in this State; but so far as we have learned the result of such experiments, a humid tropical climate seems essential to its thriving.

THE FOWLER FRUIT AND RAISIN-PACKING Co. filed articles of incorporation at Sacramento on the 8th. Principal place of business, Fowler, Fresno county; capital stock, \$30,000. Directors—Frank Victor, A. Harris, D. W. Parkhurst, C. H. Norris, C. E. Barnett, J. Aiton, B. E. Hutchinson, W. R. Shannon and T. H. Dean.

THE Canadian Department of Agriculture reports gratifying prospects for the winter wheat crop. The vegetation is a week or two in advance of last year, and the season has been early for plowing and seeding.

A STRANGE BIRD, supposed to be the Bohemian waxwing, is making havoc in Colusa county cherry orchards.

STOCKTON COMBINED HARVESTER & AGRICULTURAL WORKS

THE MILLER LIGHTNING HAY PRESS.

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First Premiums at
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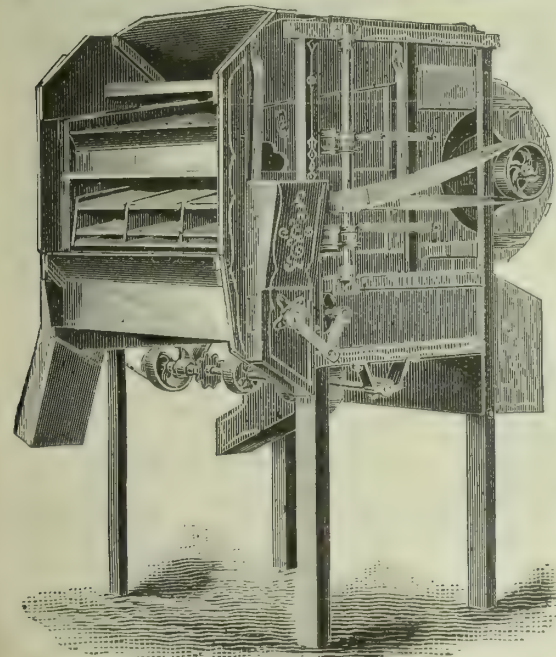
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and Two Animals to
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CAPACITY 30 TONS PER DAY,
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Or seven and a half tons per day for each man
employed, which is more than has been or
can be accomplished by any other Press yet
manufactured. Twenty tons a day with
Tight Baling Press. Can put ten tons in a
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Does not require Hay Stacks
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The "STAR" Double Shoe CLEANER

—FOR—

STATIONARY THRESHERS

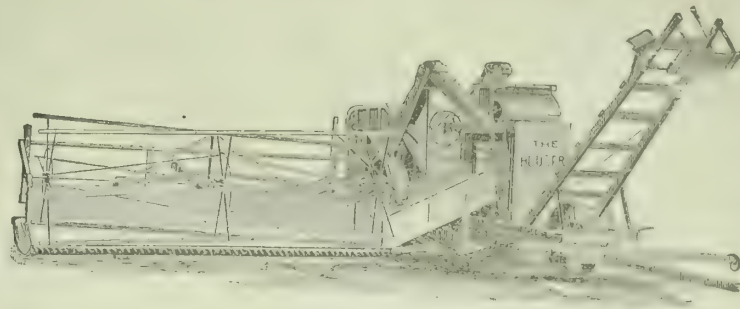
We also build to order the
"Star" Cleaner with sufficient capacity
for any threshing machine. It is mounted on trucks and can
be set by the side of any "thresher," the power being transmitted
to it by means of a counter shaft
on the thresher, or belt from the
engine. The grain is conducted to
the hopper by an elevator extending
from the grain auger of the
thresher to that of the Cleaner.

HOUSER COMBINED HARVESTER

Received First Premium, State Fair, Sacramento.

No Experiment! No Failures
NINE YEARS IN THE FIELD.

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Double Shoe Cleaner, the only successful Harvester Cleaner made. Received First
Premium in 1888.

WOODLAND, Sept. 19, 1888.

Stockton Combined Harvester and Agricultural Works
GENTLEMEN: The 14-foot Houser I bought of you this
season fills the bill right up to the handle. I have cut
1200 acres; have threshed 628 bags of wheat in one day,
averaging 540 bags for six days. The Star Cleaner and
Improved Shoe are perfect, and last, but not least, I
turn a square corner and save all the grain.

J. R. JONES.

YUBA CITY, Sept. 13, 1888.

Stockton Combined Harvester and Agricultural Works
GENTLEMEN: I have one of your "Star" Cleaner and Im-
proved Shoes on my Houser Combined Harvester, and
can say that the cleaner is far superior to any I have
ever seen in barley, being able to return unbearded
arley and pieces of heads direct to the cylinder, some-
thing that everybody can appreciate that has run a
Harvester. The Cleaner is of sufficient capacity, I hav-
ing threshed 650 sacks a day. It is well made and very
durable. The new shoe is perfection. I consider the
Houser very strong and durable, and as light draft as
machines of lighter build of same capacity.

A. GRAFFIS.

BIGGS, Nov. 25, 1888.

Stockton Combined Harvester and Agricultural Works
GENTLEMEN: I bought one of your 16-foot Houser
Harvesters this season and cut my crop of 1200 acres
with same without any expense for extras. The Star
Cleaner and Improved Shoe are perfection. Heretofore,
when using another make of Harvester, I had to have all
my grain recleaned at an expense of \$800 or more, but
with my machine it was not necessary, as the grain was
clean enough for seed as it was taken from the spout,
and I only regret that I did not buy one two years ago,
and I would have saved over \$5000. I prefer the Im-
proved Houser to any other make of Combined Ma-
chines, and would recommend it to my friends in need of
a Combined Harvester.

W. S. RIDDLE.

YUBA CITY, Oct. 15, 1888.

Stockton Combined Harvester and Agricultural Works
GENTLEMEN: The 16-foot Houser Harvester that I
bought of you this season, with the Star Cleaner, gave
entire satisfaction, and, I think, is the best Harvester
in the market. Will recommend it to anybody or friend
that wants to buy a Harvester.

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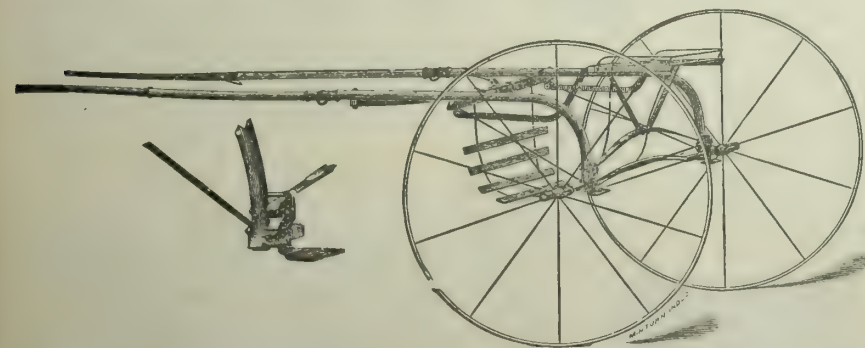
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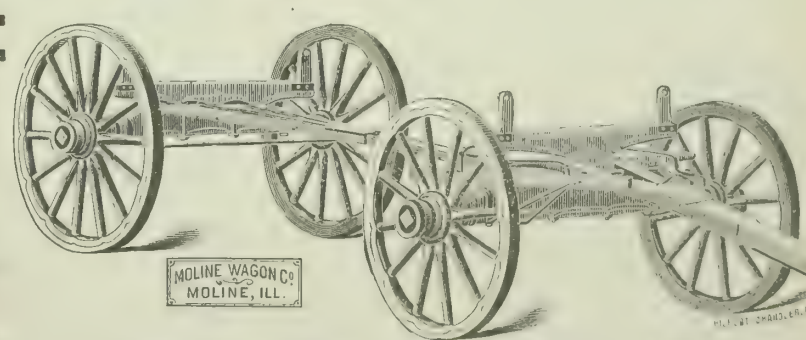
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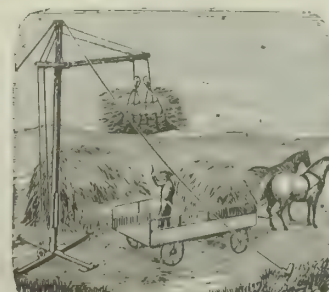
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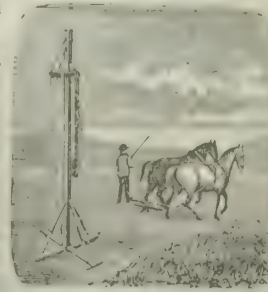
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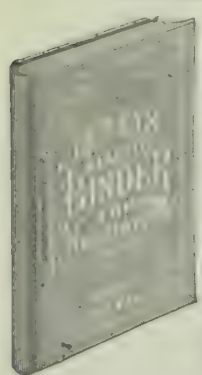
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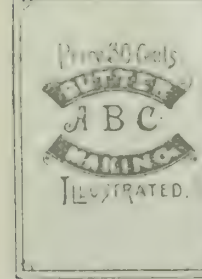
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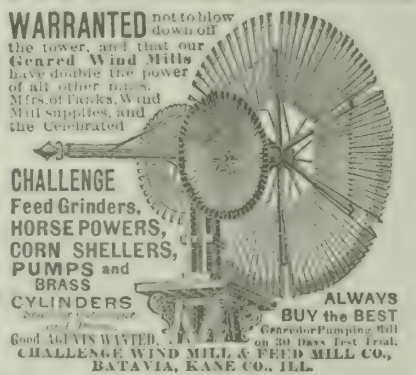
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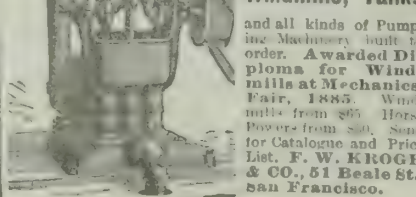
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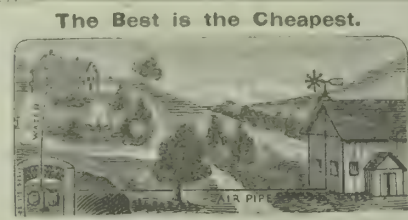
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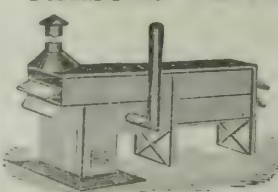


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The undersigned offers for sale, on good terms, his CLOVERDALE DAIRY FARM of 500 acres, situated on Squirrel Creek, 2 miles west of Gracia Valley. It is well watered by springs and has excellent irrigation facilities, commodious farm buildings, orchard of 150 trees and 6 acres of vineyard. A fine herd of Holstein, Ayrshire, Jersey, and Durham (thoroughbred and grade) cattle for sale with or without the ranch. Holstein and Ayrshire premium bulls on lowest terms, including "Tehama," which, on account of kinship to the herd, can no longer be used in breeding. A good dairy route is also included in this offer.

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A Ranch in El Dorado county, near Placerville, contains 160 acres, nearly all fenced in with a four-strand barbed wire fence, a good house of 11 rooms, hard finished, two brick chimneys, out stone basement with cut stone steps, a good barn and stable, chicken house, work shop and other out-houses, a good well of water, one water ditch for the land, 1000 fruit trees, all in bearing, Peach, Apple, Fig and Cherries, 1000 Grapevines; 80 acres cleared and ready for the plow, all newly level; about 25 acres woodland, pines, etc., all of which can be cleared; three cows and two calves. The Ranch is five miles from Coloma and nine miles from Placerville. The soil is a red loam, the house stands on the county road and the stage passes it twice every day. A span of horses, a new harness and wagon, plow, harrow and other farming utensils to be given with the Ranch. The title, U. S. Patent. For further information address, "RANCH," Box 2361, San Francisco, or care of Illustrated Publishing Co., 220 Market St., S. F.

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The S. E. quarter of Sec. 13, T. 21, R. 23, and all of Sec. 15, T. 23, R. 24, in the artesian belt in Tulare county, will be rented at a nominal rate for winter sowing, if applied or soon. The greater part of this land is rich, level and all ready for the plow. Address L. E. Smith, Pixley, Tulare Co., Cal., or Ranch Owner, office RURAL PRESS San Francisco, Cal.

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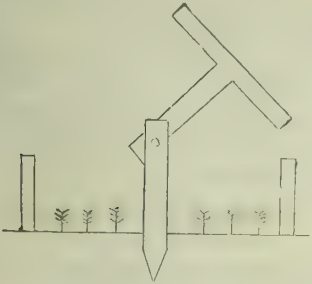
Ranch of 200 acres on Coquille River, Coos County, Oregon; 40 acres bench land, 160 acres bottom, 80 acres under cultivation; 14 miles from Coquille City, one-half mile from steamer landing. An abundance of fine spring water on place. Price, \$4500 cash, or will exchange for California property in vicinity of San Francisco Bay. For further particulars apply to H. GOETZ, 659 Clay St., San Francisco, Cal.

The Propagation and Care of the Orange.

An essay on this subject was written by Fred C. Miles of Penryn for the Convention of Fruit-Growers in National City, from which the following is taken:

In planting I use the seed from large Tahiti oranges, as so far the stock raised from them have given the best satisfaction. The practice has been, as various works advise, "to cover the seed from one to two inches with soil or sand, or both." I have had the best success here by planting the seed in June (about the 10th), barely covering the seeds with soil and then applying a dressing of one-half inch of chaparral leaves. The latter prevents the soil from baking and keeps the seed moist, the beds not drying out so quickly as with sand. The seeds are sown broadcast in beds, and are only allowed to dry before planting so that they will not stick to the hand when sowing, and only the seed is used that will promptly sink to the bottom in a water bath. Treated as above, the plants have been up at 18 days from sowing seed.

For covers for protection from the sun, the thin lining cloth, five cents per yard, is used. I do not use the stationary cover so largely in favor in Southern California, but use a frame made like the sketch below:



Device for Shading Orange Seedlings.

The pointed stake, size preferably 1x6x22 inches, having a hole bored near its top, is driven in the center of the bed before the seed is sown. A T is made having top somewhat longer than the width of the seed-bed. [The engraving does not show the cover quite as wide as it should be.—EDS. PRESS] The leg of the T is, for our hot climate, 20 inches long and has a hole bored near the bottom. A bolt is passed through the two pieces and the cloth held to the top of T by a lath tacked on. The friction of the two pieces of boards is sufficient to keep the covers in place at any angle one may desire. The great advantage of these covers is that they can be turned so that the plants can have the benefit of the sun at any time, and on this account make stronger, sturdier trees.

Another thing that helps their growth is the daily sprinkling that the plants receive in summer. I have seen plants that were drooping in the sun revive when a very fine spray was showered over them.

In our section the transplanting to nursery rows should be in March or April, as in those months the conditions are extremely favorable for moving orange trees, and this remark can be applied to setting an orchard as well. The nursery rows, if on nilly ground, should have a grade of not less than six inches to the rod. The plants from the time they appear above the ground have to be supplied with moisture, and when in nursery rows or orchard must have plenty of water. I have experimented with using water and have found that it is best to intelligently use an abundance of it. The growth, both top and root, where I have done as above has left nothing to be desired.

Budding is begun when the trees are from 15 months old upward. Probably the best per cent of good buds is obtained by working them on two-year stocks. It is an open question whether spring or fall budding is the best. I am inclined to fall budding, but experiments now in progress will soon give more definite information.

Colusa Notes.

EDITORS PRESS:—At Elk creek I had the pleasure of meeting R. Watts, who has charge of the large orchard lately started by San Francisco capitalists just up Stony creek from its junction with Briscoe creek. They are now employing 32 men at leveling, ditching, clearing, etc. Having purchased several thousand acres, we understand they contemplate planting 1500 acres in fruit within the next few years. So far they are planting principally of raisin grapes and Bartlett pears. Success to them.

Sanhedrin Lumber Company is building a mill about 12 miles west from Elk creek, whose capacity is to be 50,000 feet per day. They now employ about 100 hands. It is their plan to ship from Fruto. The grade from Elk creek is very good. One citizen affirmed that they drew a ton to the animal over the grade.

This and the fruit enterprise, added to its regular trade, is giving Elk creek a very healthy boom. F. S. C.

"MANUPRINT" is a convenient word newly coined to designate the work of a type-writer. It is to serve both as verb and noun. A type-written manuscript is a "manuprint," and its pages are "manuprinted" by the operator.

Solano's Solicitudes.

EDITORS PRESS:—We are having lots of weather, and most of it very damp. Three inches of rain have fallen since the 1st inst. The oldest inhabitant does not remember such a rain in May, but as his memory is somewhat impaired, we may have had as much before. At any rate, lots of hay has been damaged and the prospects for more rain are good.

Everything is growing fast—mortgages included. Many young fruit trees have been blown down, and many more so twisted that it was necessary to go over the orchard and straighten them up.

In some vineyards the cut worms are doing much damage, coming out of the ground at night and going back in the morning after stripping the vine of its leaves. The lively little grapehopper is also present in large numbers. It is said that bubach, mixed with sulphur, will kill the hoppers—I do not know in what proportions, but if it takes very much of the insect powder it would be cheaper to feed the hopper on grapes.

Grain hay is selling at \$8 per ton loose in the field; volunteer and damaged hay for whatever we can get. Many commission men have been around soliciting custom for their houses, but no contracts for fruit have been made that I have heard of except for one orchard on Putah creek, where the fruit was sold for one cent per pound on the tree.

The prospects for canning do not seem to be very favorable on account of high prices for tin and sugar, to say nothing of high freights East. One thing is in favor of the fruit-raiser if he ships East. The fruit crop will be light and he will not have to rustle around very much next fall to get money to pay on his freight bills what the fruit falls short of.

Vacaville, May 12, 1889.

G.

Feigning Fits.

An impostor who works on the sympathies of strangers by counterfeiting epilepsy is exposed by the *Vacaville Reporter*. The fellow's game is to fall down in some public place in what appears to be an epileptic fit. He did this in front of the Exchange hotel at Vacaville the other day. A crowd of spectators and sympathizers soon gathered around, and much sorrow was expressed for him by those who witnessed his gyrations. He lingered in the throes of the "fit" for fully half an hour, and awakened commiseration to such a pitch that \$17 50 was subscribed and given to him.

He was recognized, however, by a man employed at the hotel, who had seen him play the same trick in Oregon half a dozen years ago, and told of him. When the fellow wants to take a tumble, he sucks a little blood out of a finger which he keeps on tap and tied up, and with soap in his mouth to make froth, he works the epileptic-fit racket to perfection. Conspicuously displayed in his vest pocket may be seen a lot of cards, with his name, a recommendation from a marble cutter at San Francisco, etc., and when he falls of course the idea of bystanders is to "see who the poor fellow is, that in the event he dies the coroner's jury will have all the facts," etc.

He is a shrewd fellow and an accomplished actor, but has a despicable way of working upon the feelings of the public, and we hope will find his occupation gone. Exchanges are requested to publish a notice of his *modus operandi*, that he may have no more fits.

Sane and Sensible.

Recurring again to the subject of farmers' profits and laborers' hire, we wish to say plainly that we can entertain no sympathy for the effort to hatch up false cries against capital and successful business. We do not belong to that class that thinks the possession of worldly goods necessarily makes a man bad, any more than the necessity of toil makes a man good. The possession of railroad stock, government bonds, broad tracts of land or bank shares is not primary evidence that a man is a thief, that he is grinding the people, purchasing votes, debauching morals and controlling legislation. The proportion of good, fair-minded men in this country is greater than a majority among the rich, as it is among the poor, and fortunately such men are not, as a rule, led by prejudice to judge the whole by a part. We believe the oppression of capital is just as reprehensible as any other kind of oppression. And in nine cases out of ten those who cry the loudest against oppressions which they cannot define, against capital which they cannot possess, against character which they cannot emulate, are the ones in whose bosoms, awaiting an opportunity, lies the spirit and ideal embodied in their charges against others. We believe the oppressions that labor has needlessly produced in this country within the past few years have been as hurtful as any produced by organized capital, and when either has been fully exposed they should meet with universal condemnation. But we cannot accept the postulate that the times are so out of joint, and public and private morals at so low an ebb, that to acquire property by successful investment in any undertaking should brand the beneficiary as an enemy to good government and the brotherhood of mankind.—*Eureka Times*.

Alkali Lands.

The *Tulare Register* lately remarked that those who have made an effort to get strongly alkaline lands seeded to alfalfa know that it is no easy matter to induce the seed to germinate before the alkali eats it up. Once sprouted, the young plants will take root and grow with rapidity, and when once well set to alfalfa, unless too awfully strong, no land produces better than alkali. We were informed the other day that over in Nevada, where they have alkali in superabundance, the custom is to sow the seed in the husk, and that the husk protects the germ from the alkali until it gets strong enough to take care of itself. This looks reasonable, and we suggest that the experiment be made on lands which contain more alkali than is desired, and when thoroughly tried we should like to know the result.

Have any readers of the Press taken note of alkali lands that were formerly overrun by stock that tramped around, where the vegetable growth was kept down by feeding sheep and horses on the land? Since the country has become settled and the stock has been kept off by fences, etc., has it been observed that, where the vegetable growth was not eaten off but allowed to remain upon the ground undisturbed, it has had any effect in neutralizing the alkali and extending the area available for vegetable growth?

In some portions of Tulare valley, formerly overrun by stock, where the stock has been kept off of late years, the vegetable growth has been remarked to increase.

Chinamen Cannot Return.

The Supreme Court of the United States has affirmed the validity of the Scott Act by confirming the judgment of the Circuit Court in the case of Chae Chang Ping. This Chinaman went to China, taking with him a certificate of prior residence, similar in form to the certificates under which Chinamen had been returning for several years. Before he came back the Scott Act was passed, depriving such certificates of validity and absolutely closing the door against all Chinamen, whether they had been prior residents or not. The Chinaman raised the point that his certificate was a contract by which the United States were bound. The Supreme Court holds that it is not and that the United States have the power to exclude Chinamen at their will, notwithstanding the reservation in their favor contained in the Acts of 1882 and 1884.

Plum Aphid.

A subscriber at Capay, Yolo county, sends us plum leaves infested with plum aphid, or leaf louse, and asks for a remedy. There are several washes which will answer well. The following rosin solution was originally recommended by Prof. C. V. Riley: 4 pounds of rosin; 3 pounds of sal soda; water to make, 36 pints. Dissolve the sal soda in a few pints of water. When thoroughly dissolved, add the rosin. Heat until dissolved, and add water finally. For aphid, use $\frac{1}{2}$ pint of solution to the gallon of water. Use at a temperature above 100° F.

This remedy has also proved an excellent one for the plum aphid, and should be applied as soon as the aphid makes its appearance.

To Prevent Field Fires.

H. J. Small, superintendent of motive-power and machinery for the S. P. Co., has addressed this timely warning to Master Mechanic McKenzie of the West Oakland Yards:

As the dry season is approaching, I wish to remind you of the importance of giving close attention to the fire preventing appliance on your engines; to keep them in the best possible condition, and that regular daily inspections be made of netting in front ends, ash-pans and stacks. Instruct your engineers to report promptly when their engines throw fire, and do not allow engines to go out on the road after such report until proper repairs are made.

COLORING LABELS AND FRUIT PLATES.—We call attention to the advertisement in this issue of the Stecher Lithographic Co. of Rochester, N. Y., which states that they are ready to furnish colored label and lithographic plates of all descriptions. We have seen much of the work of this company, and it certainly commends itself. No doubt our fruit packers will do well to come with them about color work. A handsome label is a most acceptable garnishment for a package, and a neat lithograph under the cover is a good introduction to good fruit, and, fortunately, does not help bad fruit in the long run. If you have something fine to sell, give it an appropriate dress, and so far as colors go, the Stecher Lithographic Co. knows how to use them to advantage.

RED CURRANTS, the first of the season, from S. & A. Rogers of San Leandro, found ready sale in the S. F. market early this week at \$1 per drawer.

COMMENCEMENT EXERCISES AT SNELL SEMINARY, Oakland, will take place next Thursday evening, May 23d. The graduating class numbers 13.

Santa Catalina.

The sale of this island to a syndicate of English capitalists for the sum of \$400,000 is at last authoritatively confirmed, and we are very sorry it is, for it may lead to some very serious complications.

Santa Catalina lies only 22 miles from the coast of California. It possesses at least one land-locked harbor. Besides this there are a couple of bays on the channel side that may, at comparatively little cost, be made secure against even southeasters.

Should this English syndicate propose to turn this island over to the British Government, what would we do about it? Nay, suppose this syndicate is only a figment of the imagination—that they are agents of the British Government—and that the island already belongs to the British Government, what are we going to do about it? Allow a foreign Government to own so important a strategic point only 22 miles from the richest and fairest portion of Uncle Sam's dominions? The supposition is intolerable.

What is the remedy? Fall back upon genuine American principles. Pass the law demanded by all genuine Americans, that no alien foreigner shall own a single foot of American soil. "It can't be done?" Why not? Has a nation no power to preserve its autonomy by any and every means? Out upon the pusillanimity that would hesitate a moment to pass any law that might become necessary to foster and care for the welfare of the citizens of the country! Already millions of acres of this fair and prosperous country are held by alien non-residents and it is a serious menace. If people desire land in this country let them at least declare their intention of becoming citizens.

If it is a much-desired and much-prized object to be a land-owner in this country, let the party become a citizen in word and in deed before allowing him to grasp the prize for which he is striving. Only thus can we preserve our lands for our children. Only thus can we hope to perpetuate our free American institutions. Only thus can we hope to keep forever free from the horrors of the British tenantry system. Will our legislators see the danger in time? Let every true American put on his armor and fight valiantly for his country's welfare.—*Citrograph*.

Prices for Trotters.

The combination sale of trotting stock, held by Kilip & Co. at the Bay District track on the 14th instant, drew together a fair number of buyers, despite the dirty weather, but many of the animals being young and untried, the prices generally were by no means high.

G. Valensin's chestnut horse Valensin (2:23) by Crown Point—Nettie Lambert, foaled in 1883, sold for \$2050 to John Garrity.

H. A. Mayhew bought the bay filly Gracie B. by Stamboul—Moor Maid, foaled in 1887, for \$1500.

M. A. Sparks of Galt acquired the Sterling—Dore yearling Pretender, paying \$105.

H. Wieland bought the chestnut colt King Ossory by Alcona Clay—Pansy, foaled in 1887, for \$310.

Thomas Moran bought Granda, a chestnut mare, foaled in 1887, Le Grande—Miss Smith, for \$255.

E. F. Hastings bought Frank B., a bay horse, foaled in 1886, Belmont Chief—Lady Bonner, for \$290.

Standard N, a bay horse, by Almore—Dolly Nutwood, foaled in 1886, went to A. F. Jones for \$305.

Sir Charles, a chestnut gelding, by Alonzo Hayward—Lady Allen, foaled in 1883, was sold to James J. Dustin for \$350.

About 20 horses were sold at from \$100 to \$200 each.

At the American Institute in New York, on Wednesday of last week, 39 head of Senator Stanford's trotting stock were sold at prices amounting to \$35,785, which surprised and disappointed Supt. Marvin of Palo Alto.

ESCAPE AND WARNING.—The *Riverside Press* tells how Mrs. W.—the other day found her little boy with a lot of white stuff on his face and clothes. When she asked him what he had been doing, he said he had been eating it, but it did not taste good, so he spit it out. He pointed to the bottle from which he had got the stuff, and his mother found to her horror that it was strychnine. She immediately gave the little fellow all the emetics she could think of, but it was half an hour before the result was obtained. Beyond the natural effects of the emetics and the fright, no bad results seemed to follow. But it was a narrow escape and should warn people not to leave strychnine lying around loose where children can get it.

HOW ONE CIGARETTE KILLED FIVE MEN.—The whaling bark Sea Fox of New Bedford put in to Equiminas for wood and water. An agreement was made with Antonio de Bastos Pina to pay for the supplies in powder. He came on board the vessel. The powder was hoisted on deck, and an explosion was caused by Senor Pina lighting a cigarette. The after-part of the vessel was badly damaged, five men, including the smoker, were killed and several others injured.

Breeders' Directory.

Six lines in this Directory at 50c per line per month.

HORSES AND CATTLE.

P. PETERSEN, Sites, Colusa Co., importer & breeder of registered Shorthorn Cattle. Young bulls for sale.

JOHN DETER, Colusa, Cal. Almont saddle and driving horses for sale. Single footers. Two fine Stallions.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred and Standardbred Horses.

H. P. MOHR, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

H. S. SARGENT, Stockton, importer and breeder of registered Jersey Cattle. Correspondence solicited.

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENMAN & MCNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. B. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton), Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Short-horns & Herefords, Wildflower Farm, Fresno or Sac'to.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

JERSEYS—The Best Herd, all A. J. C. Registered, is owned by Henry Pierce, San Francisco.

SETH COOK, breeder of Cleveland Bay Horses, Devon, Durham, Polled Aberdeen-Angus and Galloway Cattle. Young stock of above breeds on hand for sale. Warranted to be pure bred, recorded and average breeders. Address, Geo. A. Wiley, Cook Farm Danville, Contra Costa Co., Cal.

J. H. WHITE, Lakeville, Sonoma Co., Cal., breeder of Registered Holstein Cattle.

R. J. MERKLEY, Sacramento, breeder of Norman, Percheron Horses and Thoroughbred Shorthorn Cattle.

T. SKILLMAN, Petaluma, importer and breeder of Suffolk, Berkshire Norman and French Coach Horses.

M. D. BOPKINS, Petaluma, importer and dealer in Eastern registered Shorthorns, Red Polled Cattle, Holsteins, Devons and Shropshire Sheep.

PETER SAGE & SON, Lick House, San Francisco, Cal. Importers and Breeders, for past 18 years, of every variety of Cattle, Horses, Sheep and Hogs.

GEO. BEMENT & SON, Maple Grove Farm, Oakland P. O., breeders of Ayrshire Cattle & Essex Swine.

F. H. BURKE, 401 Montgomery St., S. F.: Registered Holsteins, winners of more first prizes, sweepstakes and special premiums this year than any herd on the Coast. Pure Berkshire Pigs. Catalogues.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

POULTRY.

T. D. MORRIS, Agua Caliente, Cal.; pure-bred fowls.

E. H. FREEMAN, Santa Clara, Cal. Best strains of thoroughbred Poultry. Send stamp for circular.

W. O. DAMON, Napa, \$2 each for choice Lt. Brahmas, Wyandottes, P. Rocks, White and Brown Leghorns. Eggs \$2 per 13. Best Seed for sale.

GALT POULTRY YARDS, S. W. Palin prop'r, Galt, Sac'to Co., Cal., importer and breeder of thoroughbred Ply. Rocks, Lt. Brahmas, Langshans, Wyandottes & P. Cornish Game. Selling \$2 25 for 13.

A. C. RUSCHHAUPT (successor to Jas. T. Brown and W. B. Nisbet), box 43, station B, Los Angeles, Cal. Yard on State St., Brooklyn Heights, importer and breeder of 15 varieties thoroughbred Poultry. Fowls and Eggs at reasonable prices. Circular free.

O. J. ALBEE, Lawrence, Cal. Pure bred poultry.

PIEDMONT POULTRY YARDS, cor. Piedmont Ave. & Booth St., Oakland. Wyandottes, L. Brahmas, P. Rocks, Langshans, B. Leghorns, B. B. R. G. Bantams. Eggs \$2 for 13; circular free; Mrs. J. N. Lund, Box 116.

CALIFORNIA POULTRY FARM, Stockton, Cal.; send for illustrated and descriptive catalogue, free.

R. G. HEAD, Napa, Cal., breeder of the choicest varieties of Poultry. Each variety a specialty. Send for new Catalogue.

SHEEP AND GOATS.

L. U. SHIPPEE, Stockton, Cal., importer and breeder of Spanish Merino Sheep, Durham Cattle, Jacks and Jennys & Berkshire Swine high graded rams for sale.

J. B. HOYT, Bld's Landing, Cal., importer and breeder of Shropshire Sheep; also breeds cross-bred Merino and Shropshire Sheep. Rams for sale.

A. W. WOOLSEY & SON, Fulton, Cal., importers & breeders of Merino Sheep, ewes & rams for sale.

B. H. CRANE, Petaluma, Cal., breeder and importer. South Down Sheep from Illinois and England for sale.

KIRKPATRICK & WHITTAKER, Knight's Ferry, Cal., breeders of Merino Sheep. Rams for sale.

ANDREW SMITH, Redwood City, Cal.; see adv't.

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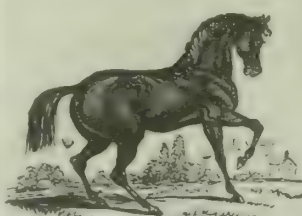
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I offer for sale at my ranch, on Clear Lake, near Lakeport, pure-bred Percheron Mares and Horses of the choicest families. Pedigrees recorded in the Percheron Stud Book of France and America. They are principally the Brilliant, Caesar strains of blood. Address WM. B. COLLIER, Lakeport, Cal.

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Of Short Horn Cattle and Dairy Cows.

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It prevents disease, regulates the bowels and urine, strengthens the kidneys, prevents scouring, colic and leg swelling, loosens the hide, promotes the appetite, cures cough, destroys worms, and produces a fine glossy coat. \$7.50 per 100 pounds. Manhattan Egg Food, in bulk, 12 cents per pound. Ask your dealer, or send to PAUL KEYSER, Agent, 206 Clay St., S. F.

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ADMINISTRATOR'S SALE

By order of Probate Court, in the matter of the Estate of JAMES ROBERTS, Deceased.

I will sell at private sale to the highest bidder, for cash, on or after May 1, 1889, at the Ranch in Irvington, or at my office in Oakland, 946 Broadway, Alameda Co., Cal., the entire flock of Thoroughbred French Merino Sheep, consisting of 280 (Two hundred and eighty) Ewes, 79 (seventy-nine) Bucks, and 180 (one hundred and eighty) Lambs. These Sheep are the get of the original flock imported by Robert Blacow of Centerville. Mr. Roberts, as foreman, having charge of the flock for several years prior to Mr. Blacow's death, after which he became the owner of the entire flock, which he has kept purely for stock purposes.

All interested in Thoroughbred Sheep should be familiar with this flock, which has become famous under the care and management of Mr. Roberts; always receiving first premiums, having been sold to Europe, South America and all parts of the United States; individual members having repeatedly sold for from \$500 (five hundred) to \$1500 (fifteen hundred) each. Sheep Men should seize this opportunity to secure some, as they must be sold to settle up the Estate. Address, JAMES STANLEY, Administrator Estate J. Roberts, Deceased, Mission San Jose, or 916 Broadway, Room 17, Oakland, Cal.

THOROUGHbred SPANISH MERINO SHEEP.



Have taken the First Premiums at the State Fair for the last three years.

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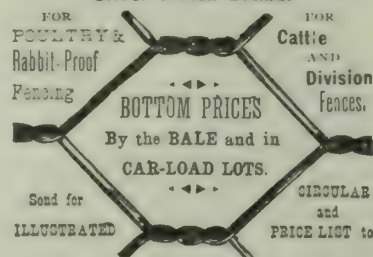
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SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 406, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with record's better than 2:30, and the dams of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp. Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:23, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbridge, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 406, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Ryadyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Tamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, 6th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.

Vol. I, American C. B. S. B.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportsman (291).

Second dam by Luck's All (189).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. I, A. C. B. S. B.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Bolano District Fairs, and second at Golden Gate Fair in "all work" case, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at St. Yorkshire, beating 20 others.

First dam Whalebone (356), first premium Gt. York-shire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16½ hands high, weight 1600 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 243; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teesdale, and second premium at Bowes, England, in 1886; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

The Standard Bred and Cleveland Bay Stallions

Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

PASTURAGE, \$4 per month; Hay and Grain, \$10. Best care taken, but no liability assumed for accidents or escapes.

Mares sent to Fashion Stables, Oakland, Benne's Stables, Martinez, or to Geary & Grindle's Stables, Haywards, will be forwarded to Farm Free of Charge.

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POULTRY, ETC.

Chickens

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S. F. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 15, 1889.

In general produce, trading the past week was fairly active for all lines, except cereals. The weather continues favorable for growing crops, which is taken advantage of by buyers to depress values. The wheat market at the East and abroad showed a slight reaction, but at the close was weak. The following is to-day's cablegram:

LIVERPOOL, May 15.—Wheat—Quiet. California spot lots, 6s 9d@7s; off coast, 3s 6d; just shipped, 3s 9d; nearly due, 3s 9d; cargoes off coast, quiet; on passage, slow; French country markets, quiet.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	May.	June.	July.	Aug.	Sept.	Oct.
Thursday	7.01	7.00	7.01	7.01	7.00	7.00
Friday	7.01	7.01	7.01	7.01	7.00	7.00
Saturday	7.01	7.01	7.01	7.01	7.00	7.00
Sunday	7.01	7.01	7.01	7.01	7.00	7.00
Tuesday	7.01	7.01	7.01	7.01	7.00	7.00

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week.

	O. C.	P. S.	N. D.	Market.
Thursday	34.61	34.61	34.61	Firm.
Friday	34.61	34.61	34.61	Quiet.
Saturday	34.61	34.61	34.61	Firm.
Sunday	34.61	34.61	34.61	Firm.
Tuesday	34.61	34.61	34.61	Quiet.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	May.	June.	July.	Aug.
Thursday	84	84	84	84
Friday	84	84	84	84
Saturday	84	84	84	84
Sunday	84	84	84	84
Tuesday	84	84	84	84

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	May.	June.	July.	Aug.
Thursday	84	84	84	84
Friday	84	84	84	84
Saturday	84	84	84	84
Sunday	84	84	84	84
Tuesday	84	84	84	84

NEW YORK, May 15.—Wheat—84½c for June, 83½c for July, 82½c for August and 81½c for September.

CHICAGO, May 15.—Wheat—84½c for cash, 83½c for May, 82½c for June, 78½c for July and 75½c for September. Oats—23½c for May.

Foreign Grain Review.

LONDON, May 13.—The *Mark Lane Express*, in its weekly review of the British grain trade, says: Heavy imports have tended to depress English wheats. Fine flours are stiffly held. Poorer grades are weak. Foreign wheats have declined 6d, excepting fine Russian. Barleys are down 3d. Corn is depressed. Beans and peas are firm. At to-day's market English and foreign wheats are firmer. Corn is stronger at 6d advance.

Eastern Wool Markets.

NEW YORK, May 12.—All the large Eastern wool markets report a better attendance and more disposition on the buyers' part to meet current rates. The strong feeling at primary points has received considerable support, which causes a watchful interest among buyers who may soon require replenishment. Some good blocks were taken at San Antonio, Texas, at 20@22½c for Boston. The offerings thus far of Southern and Middle California are very attractive. Sales of 20 bales fine scoured California at 60c; 260 new spring, 19½@21½c; 15,000 pounds scoured, on private terms; 20,000 fine delaine, 35@36c; 10,000 double X, 34@35c; 10,000 fine unwashed, 21c; 8,000 Virginia, 21@22c; 10,000 spring Texas, 18c; 5,000 scoured, 50c; 10,000 fine medium Territory, 21c; 312,000 domestic, 80,000 foreign, 75 bales ditto, private terms. Sales at Boston, 2,500,000 pounds. There has been more inquiry from manufacturers which may result in larger business next week. There is a large supply of pulled wools here.

PHILADELPHIA, May 10.—Wool is quiet and prices are nominal and unchanged.

Crop Indications.

WASHINGTON, May 11.—The condition of winter wheat has advanced from 94 to 96, of rye from 93.9 to 96.5. The general average of winter barley is 93.9. The winter wheat of the Ohio valley, while fully maintaining its April position, has had a scant supply of moisture, and fears of future decline of condition are entertained, in case of continued deficiency of rainfall. On the Atlantic slope the recent heavy rains obviated the effects of the previous deficiency. The plant is generally green and flourishing, but has not filled well in localities inclining to dryness. High condition is reported in the South, though rust has appeared upon the wheat blades in some fields. Percentages of condition of the principal States of production are: Ohio, 90; Michigan, 92; Indiana, 95; Illinois, 93; Missouri, 98; Kansas, 98; Texas, 88; in the East, New York and Pennsylvania average 96, Maryland and Virginia 98. Chinch bugs are reported in Missouri and Kansas and in some instances elsewhere, without any indication of serious injury. Spring plowing is much further advanced than on May 1st last year.

Miscellaneous.

NEW YORK, May 12.—Hides are quiet. Stocks are increasing, but there is no evidence of further giving away in prices.

There is a fair demand for Limas at \$3.15. The market is cleaned of peeled peaches at 8@10c. Unpeeled have merely small-order attention. All of the best grades of California prunes are out of first hands.

The position of hops continues strong. Best State is held at 24c, with 23½c realized for selected export stock. At the moment the English market does not sustain the upward tendency here. Pacifics hold full last rates; 22c top; red sold at 15@17c.

The price for local buyers is unchanged. The exports for the week were 398 bales.

Local Markets.

	WHEAT.	B. S.	B. S.	B. S.	B. S.	B. S.
Thursday	136	136	136	136	136	136
Friday	136	136	136	136	136	136
Saturday	136	136	136	136	136	136
Monday	136	136	136	136	136	136
Tuesday	136	136	136	136	136	136

	BUYER SEASON.	SELLER 1889.	BUYER 1889.
Thursday	64	64	64
Friday	64	64	64
Saturday	64	64	64
Monday	64	64	64
Tuesday	64	64	64

BAGS—The market is quiet but steady with a strong undertone. The pool appears to be buying up all large parcels, even paying a slight advance on current quotations. One large holder refused 8c cash for Calcuttas. The market is quotable for small parcels at 8c for cash, 8½c for June-July delivery. Large parcels are held higher.

BARLEY—The forcing of weevily barley on the market has sent prices to lower figures. There is no doubt but all well-conditioned parcels can be readily placed at a slight advance on quotations. The consumption this year will be very heavy, while the acreage seeded was less than in 1888, but present prospects warrant the assertion that the yield will average more to the acre. Trading in futures on Call has been fairly active. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—100 tons, 81c. Buyer season—400 tons, 65c. Seller 1889, new—100 tons, 73c ½ cwt. No afternoon session.

BUTTER—The market is firm at a slight advance under lessened receipts and a good demand. The establishing in the cities of more cream separators, where butter is made, curtails the local consumption for dairy butter.

CHEESE—The market is weak. The distribution is increasing at the low prices. Receipts are smaller.

EGGS—Light receipts have caused a slight advance in prices. The market closed strong.

FLOUR—The market is barely steady. Exporting is on a larger scale.

WHEAT—The market is steady but strong. The light obtainable supply of shipping grades and the large engaged tonnage in port are against export buyers. In futures trading has only been fair. The fluctuations are not attractive enough to tempt free dealings. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—1600 tons, \$1.37. Buyer 1889, after Aug. 1st—400 tons, \$1.32 ½ cwt. No afternoon session.

Market Information.

Produce Receipts.

Receipts of produce at this port the past week were as follows:

Flour, qr. sks.	165,259	Middlings, sks.	6,571
Wheat, cts.	144,595	Alfalfa, "	—
Barley, "	28,303	Lucern, "	485
Rye, "	331	Broomcorn, bds.	440
Oats, "	7,093	Hops, bls.	128
Corn, "	655	Wool, "	6,653
Butter, "	1,637	Hay, tons.	1,107
do bxs.	783	Straw, "	10
Cheese, cts.	957	Wine, gals.	270,810
do bxs.	97	Brandy, "	3,220
Eggs, doz.	105,80	Raisins, bxs.	750
Beans, cts.	8,202	Honey, cs.	41
Potatoes, sks.	14,48	Walnuts, sks.	150
Onions, "	3,367	Flaxseed, sks.	4,450
Bran, sks.	13,137	Mustard, sks.	650
Buckwheat, sks.	7		

Crop Prospects.

Crop prospects continue of the very best. The rains were followed by cool weather that in turn has been succeeded by variable clouds and rains which have put the cereal crops on the high-road to a larger outturn than since the year 1880, provided hot north winds do not set in before harvesting commences. The best judges of the situation do not look for any severe devastating north winds until well into July and August, which if proven correct, will allow ample time for garnering the grain. As published by us about two months ago, the acreage seeded to wheat this year is 3,500,000 acres, which is the largest on record. The character of the weather this spring gives a large hay crop without necessitating much cutting of fields of grain for hay. Barley must be excepted, for its low price will cause a large number of the fields to be cut for hay, which has not been the case since 1880. With a comparatively full wheat acreage being harvested the total yield with only an average outturn to the acre will be very heavy, but with a large outturn it will go over 2,000,000 tons. In 1880 the outturn averaged over 26 bushels to the acre, and in 1884 nearly 15 bushels. The outlook, at present, is fully up to that at this time in 1880, which if the same yield is realized will give us an aggregate outturn this year of 78,000,000 bushels—allowing that 500,000 acres will either not be cut or else be put into hay. With a yield to the acre equal to that of 1884 the outturn on 3,000,000 acres will be about 45,000,000 bushels. It is not at all likely, even with unfavorable weather, that the outturn will go below 45,000,000 bushels. Barley crop prospects are of the very best, but there will be a light outturn of bright grades. Considerable has been cut for hay. The oat, rye and buckwheat crops are of the most promising character. The weather is all that can be desired for the growing corn crop.

Oregon advises report that the recent rains in Eastern Oregon and Eastern Washington Territory insure a large crop outturn in both wheat and barley. In the former there was a decided increase in the acreage seeded, but how much it is impossible to obtain. The quality of the wheat and barley it is claimed will be the best ever before harvested.

Cereals.

In wheat there is nothing of particular interest to report. The demand for sample parcels is only

fair. The limited inquiry is offset by the small offerings, due to the light available supplies. There is no movement which indicates anything of a speculative nature, although the feeling is strongly impressed that operators are acting more in concert than usual to bring about low prices at the opening of the season for 1889-90. As heretofore stated, the prices at which all transactions now point indicates the opening to be at from \$1.20 to \$1.25 for No. 1 white shipping. It is asserted that at these prices farmers will realize more on a long crop than at \$1.50 to \$1.60 for No. 1 white shipping with a crop below an average. Both millers and shippers confine their transactions to immediate requirements. There is a report current that many warehousemen are compelling holders to release. This action on their part is claimed to be due to the large incoming crop, necessitating all the room that can be had. Many warehouses are making additions so as to handle more grain.

In barley the market, after a spasmodic effort at a recovery, relapsed, causing values to sink to a lower level than ever. It is claimed that considerable of the feed and also of the brewing grades is more or less weevily, and consequently is forced on the market at best obtainable prices. Stocks of barley in warehouses, like that of wheat, will have to be well cleared out so as to prepare the warehouses for the new crop. While dealings in spot or cash parcels are only fair, those in futures are increasing in volume.

Oats continue unattractive to the speculative element. The large available supply on the coast, good crop prospects and the cheapness of barley are against holders. Buyers in general do not, to any extent, anticipate their wants.

Corn is sluggish, not but there is a steady demand, but there is an entire absence of any movement calculated to inspire holders with confidence of better prices in the immediate future.

In both rye and buckwheat there is very little doing. The former is weak at the recent decline, while the latter is barely steady under offerings for shipments from the Central States.

Yesterday's (Tuesday) cablegram reports as follows: Four arrivals of wheat cargoes off coast, six sales and 11 awaiting orders. Wheat and flour on passage to United Kingdom, 1,669,000 qrs.; wheat on passage to Continent, 348,000 qrs.; corn on passage to United Kingdom, 235,000 qrs.; corn on passage to Continent, 158,000 qrs. Weekly imports to United Kingdom—Flour, 107,000 bbls.; wheat, 246,000 qrs.; corn, 156,000 qrs. Shipments of wheat from Calcutta, Bombay and Kurrachee to the United Kingdom, 12,500 qrs.; to the Continent, 50,000 qrs.

Feedstuff.

In ground feed the demand is still slow. Ground barley is reduced.

The receipts of hay continue light, causing a better feeling and slightly higher prices. Reported damage to the hay crop is largely exaggerated. There can be no doubt that in choice, fine straw hay there will be a light crop, but the crop of coarse straw will be very heavy.

Fruit.

The first currants of the season put in an appearance the past week. It is very generally claimed that the crop will be quite large and of good quality. Strawberries have come in quite freely, causing values to sink to figures admitting of canners buying. Raspberries are coming in more freely, but, as yet, prices have not shaded off much.

Cherries came in more freely the past week, causing, at times, low prices to obtain so as to work off the receipts of the poorer keepers. The shipping demand continues good, cleaning up the market every little while.

Apricots are in freer supply, but the demand is, as yet, poor.

Some green apples put in an appearance the past week. The quality not being good, the consignments had to be placed at fairly low prices.

In dried fruits, French prunes are stiff, with another slight advance obtainable. Eastern advices are confirmatory of the California French prunes having better keeping qualities than the imported, which naturally causes them to command more attention even at a slight advance on the latter. In other dried fruits the market is without essential change, although a better turn is reported.

Raisins are firmer, with choice selected being in light supply.

The action of the Transcontinental Railroad Association in reducing the overland freights to \$1 on canned fruits will, without doubt, allow much if not all the canned fruits carried over from last season to be marketed in the Central markets. The reduction in freight will unquestionably cause a better feeling with canners, yet the high cost of tin and sugar is somewhat against them.

Fruit-crop prospects continue of the best. A large number of new trees will come into bearing this year, which will offset any loss reported in the older apricot and cherry orchards.

In citrus fruits, choice, well-selected, good-keeping oranges are firm at full figures, but poor keepers are sold at the best prices obtainable. Receipts are light.

Mexican limes are strong and higher, under a temporary scarcity and none to arrive under a week.

Live-Stock.

Bullocks and mutton sheep are still offering freely. The increasing supply of fruits lessens the consumption of meats, which will be more marked with warmer weather. All kinds of stock coming in are reported to be in exceptionally good condition. The only objection that can be reasonably urged is that they are too fat, particularly the mutton sheep. Sales of the latter have been made at low figures. Lambs are still weaker. Hogs are weak, owing to packers not being able to buy. The demand is only for the block. The low price of grain will cause more hogs to be fed for market. In cows, there is nothing new to report. Good fresh milkers have some inquiry at from \$30 to \$45. Farm horses are more inquired after, but no higher bids are made so as to have the wants met. For use in railroad building, the demand is essentially unchanged, but it is generally claimed that it will not be up to former seasons. For city use the call still runs on matched teams and general utility horses. Prices vary according to color, general style, free motion and other good points.

The market for dressed cattle is quoted as follows: To obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to

the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent.

HOGS—On foot, grain fed, 5½@6c ½ lb.; dressed, 8½@9c ½ lb.; soft, 5½@5¾c ½ lb.; dressed, 8@9c ½ lb. Stock hogs, 5@6c ½ lb.

BEEF—Stall fed, 6@6½c ½ lb.; grass fed, extra 5½@6½c ½ lb.; first quality, 5½@5¾c ½ lb.; second quality 4¾@5c ½ lb.; third quality, 4¼@4½c ½ lb.; bulls and thin cows, 2@3c ½ lb.

VEAL—Small, 7@8c ½ lb.; large, 6@7c.

MUTTON—Wethers, 5@5½c ½ lb.; ewes, 4@5½c ½ lb.; lamb, spring, 6@8c ½ lb.

Hops.

Receipts the past week show a slight increase. The movements were chiefly for shipping, although some went East. The market shows a fair degree of firmness for choice, which are quite scarce. Crop advices continue of the best both in this State and Washington. In his last circular, Emmet Wells of New York says that market holds to strong prices, with a good export movement. Speaking of the crop outlook in that State, he says: During our long experience in the business we never knew or heard of a season which gives so much early promise as this of a large yield. The roots have wintered remarkably well, and open up strong and healthy. The usual cry of "hard winter on roots" and "freezing out" has not been heard. Vegetation in this State is said to be fully two weeks in advance of last spring, and the vine is already beginning to look for the poles. With a favorable growing season and no vermin, New York State will produce a fine large crop of hops to be spoiled only as usual by careless picking in September. If the Pacific Coast growers can find pickers enough to gather their crop, it will not be many years before they will be able to supply the world with hops—provided, however, that their plantations continue as free from insect pests as they always have been.

Vegetables.

Seasonable vegetables are in free receipt, causing some shading in values. The demand, both home and shipping, continues good, with a decided increase in the volume of vegetables going out on orders. It is claimed that shipments up north will be largely curtailed with truck from local gardens coming in on the market soon.

Asparagus has held fairly steady, as have peas, but beans and other garden truck have shaded off some. Eveleth & Nash received the first consignment of green corn from Vacaville on last Monday. The quality is said to have been only fair. It is said that the crop of garden truck will not only be heavy but will extend quite well into the summer.

Onions are weaker under free receipts and only a fair demand. It takes good keepers to excite the attention of buyers at full asking prices.

New potatoes continue to come in freely, causing low prices to obtain. The quality is improving. The shipments out of the State are lighter than usual, which is against the market. Old potatoes, if choice and in good condition, meet with a ready market, but poor are hard to place. The demand for old slacks off as the new improve.

Wool.

Receipts show a slight advance on the preceding week, with Oregon sending us more. Rains have unquestionably interrupted shearing in some parts of the State. Buyers, as usual, continue to skirmish to keep values down, but growers do not appear disposed to press the market. While not pressing the market, growers are so bullishly inclined as not to be reached by fair bids. The clip this year will undoubtedly be of better grade (cleaner and livelier) than shorn for several years past, and therefore should command more with the Eastern markets unchanged. At the East, buyers are reported to be engaged in keeping prices down.

Miscellaneous.

Poultry closes the week under review weak, owing to a light demand and free shipments reported to be on the way from central points East.

Honey is arriving more freely, causing a continued sagging in prices. Buyers are not operating to any great extent, waiting for fuller returns from the new crop.

Beans have come in more freely, creating a weak tone, notwithstanding a fair distributive call.

Peanuts are stiffer, under a good demand and a light supply of California.

Hides are weaker, as is tallow.

A. N. Towne calls attention through the daily press to the competition of the Canadian Pacific railroad for the traffic of the coast. Representative farmers (not those who get favors from the Southern Pacific railway) to whom the writer spoke on the subject, express themselves as not caring much which road caused low freights, and hoped that the C. P. R. Co. would continue in its purpose of keeping freights on wool, dried fruits, etc., down.

The leading overland shipments via Southern Pacific railroad in last month were as follows: 4004 cts. barley, 3723 cts. beans, 35,680 gals. brandy, 494,010 gals. wine, 34,730 lbs. honey, 720,640 lbs. canned goods, 382,530 lbs. dried fruit, 6,133,020 lbs. green citrus fruit, 271,800 lbs. hides, 182,490 lbs. hops, 89,300 lbs. raisins, 1,091,810 lbs. wool.

The steamer San Blas, for New York, which left the past week, took out 31,500 gals. wine, 1973 gals. brandy, and 42,497 lbs. wool.

In seeds the market is weak for mustard and flaxseed, under free receipts. Alfalfa is easier, with the demand light.

From the *Commercial News* of May 15, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port	213,493	290,159
On the way to neighboring ports	29,292	123,672
In port, disengaged	17,635	35,748
In port, engaged for wheat	37,376	10,361

Totals 297,796 | 459,940 |

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to May 14, the following are the exports from this port:

	1889.	1888.
Wheat, cts.	11,450,666	8,034,257
Flour, bbls.	668,602	678,466
Barley, cts.	1,261,534	645,134

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Domestic Produce.

Table with multiple columns listing various domestic produce items such as Beans and Peas, Butter, Eggs, Flour, Grain, Hides, Hops, and various fruits and vegetables. Includes prices and quantities.

Fruits and Vegetables.

Table listing various fruits and vegetables including Apples, Apricots, Bananas, Beans, Berries, and various types of corn and grain. Includes prices and quantities.

Dried Fruits, Etc.

Table listing various dried fruits and other products such as Apples, Apricots, Bananas, Beans, Berries, and various types of corn and grain. Includes prices and quantities.

PACIFIC COAST WEATHER FOR THE WEEK.

[Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.]

Table showing Pacific Coast weather for the week, including dates (May 8-14) and weather conditions for various locations: Portland, Eureka, Red Bluff, Sacramento, S. Francisco, Fresno, Keeler, Los Angeles, and San Diego.

EXPLANATION.—Cl for clear; Cy, cloudy; Fr, fair; Fy, foggy; Cm, calm; — indicates too small to measure. Temperature, wind and weather at 12:00 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.

Table listing various agricultural products and their prices, including Pears, Plums, Prunes, Raisins, and California Honey.

California Products at Chicago.

CHICAGO, May 15.—Oranges are steady. There is a fair demand and present arrivals are small. California Riverside, \$3.30; do, undesirable sizes, \$2.50; California San Gabriel, \$2.50; California Duarte, \$2.50; California Los Angeles, \$2.50; California sweet cherries sold at \$2.50 for ten-pound boxes of Black Tartarians.

THE LAUGHING PLANT.—Palgrave, in his work on Central and Eastern Arabia, mentions a plant whose seeds produce effects analogous to those of laughing gas. The plant is a native of Arabia. A dwarf variety is found at Kasum, and another variety at Oman, which attains a height of from three to four feet, with woody stems, wide-spreading branches and light-green foliage. The flowers are produced in clusters and are yellow in color. The seed pods contain two or three black seeds of the size and shape of a French bean. Their flavor is a little like that of opium, the taste is sweet and the odor from them produces a sickening sensation and is slightly offensive. These seeds, when pulverized and taken in small doses, operate upon a person in a very peculiar manner. He begins to laugh loudly and boisterously, and then sings, dances and cuts up all kinds of fantastic capers. The effect continues about an hour and the patient is extremely comical. When the excitement ceases the exhausted individual falls into a deep sleep, which continues for an hour or more, and when he awakens he is utterly unconscious that any such demonstrations have been made by him.



The only machine that received an award on both Horse-power and Thresher and Cleaner, at the Centennial Exhibition; was awarded the two last Gold Medals given by the New York State Agricultural Society on Horse-power, and Threshing, and the only Thresher selected from the vast number built in the United States, for illustration and description in "Appleton's Cyclopedia of Applied Mechanics," recently published, thus attesting it as the standard machine of this country. Buy the best. It is the cheapest in the end. Catalogue sent free. Address, MINARD HARDER, Caldwell, Schenectady Co., N. Y.

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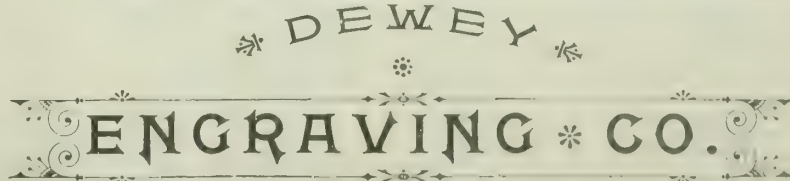
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ORANGE CULTURE IN CALIFORNIA.

Now that the interest in the culture of the orange is extending so as to embrace nearly all parts of the State, a book giving the results of experience in parts of the State where the growth of the fruit has been longest pursued will be found of wide usefulness.

Injurious Insects of the Orchard, Vineyard Field, Garden, Conservatory, etc.,

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Facts About Feet.

The common unit of lineal measure, a foot, was derived from the length of the human foot.

In a man 5 feet 11 inches tall, the foot measured 10½ inches, and the middle toe 2½ inches. In Chinese subjects, the ordinary height being five feet, the length of the foot was nine inches and five lines.

The longest foot of measure is that of old Turin, which is equal to 20 inches of English measure.

There was a time when not only each country but each town had a foot-measure of its own, indicating different averages of the different feet in various localities.

Among a tribe of low-stature Indians whose height varied from 5 feet 1 inch to 5 feet 3 inches, the length of the feet was found to be from 9 inches 4 lines to 9 inches 6 lines.

In order to get an idea of the length of shoe sizes in inches, it may be stated that a foot measuring 10 inches, with the weight of the body resting upon it, may comfortably wear a 6 shoe.

A youth in the South Sea islands, 6 feet 7 inches in height, had a foot 12½ inches long. His lower extremities measured 38 inches in length, circumference of calf of leg 17½ inches, and his ankle 10 inches.

CARE OF CARPETS.—It is quite desirable to have something with which to sweep carpets, to prevent raising a dust and to brighten the colors. Probably the safest and best way is to take half a package of soft paper and cut or tear it into bits not over an inch square. Wet it and press out the water, then scatter over the carpet. It should not fall in large lumps, but be picked apart so that it will cover almost an entire room. When the broom is used it will roll into little balls, and, as it is swept over the carpet, will take up the dust quite thoroughly. Some housekeepers go over the carpet the second time with clean paper. Very coarse salt used dry is good. If the house has damp corners it should be used sparingly, as it has a tendency to attract moisture. Wet leaves are used by some country families. One old lady has a quantity of cuttings of calico and white goods. These she moistens and throws over the carpet. When she is done, the scraps go into a tub of water, are whirled about, and then thrown upon an old wire screen, where they dry, and are clean for the next time. Brooms should always be hung up by a ring in the top of the handle. If they are set upon the floor, especially while damp, they get out of shape, and the ends of the brush are curved out, rendering them almost useless. Do not stand them up with the brush uppermost. If they are damp, the water will soak into the body of the broom, and not only rust the wire and rot the cord with which the broom is made, but will make the broom straw smell musty and disagreeable, and finally rot them altogether. Mops and window-brushes also should be hung up by the handles.

Our Agents.

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BLUE GUMS AND MOSQUITOES.—O. Talbot writes the Tulare Register: "Where I formerly lived in Mussel slough, I believe there are as many mosquitoes to the square mile as any place outside of Kern county. Our house was surrounded with blue gum trees. We always slept with our doors and windows open and were never seriously bothered, while just a few rods away the stock would be covered and almost perish with the great numbers tormenting them. If any one doubts the effect of the preventive, let him take a bough picked fresh from the blue gum and lay about his bed. I don't know about the red or other species of the gum."

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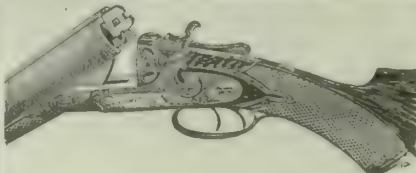
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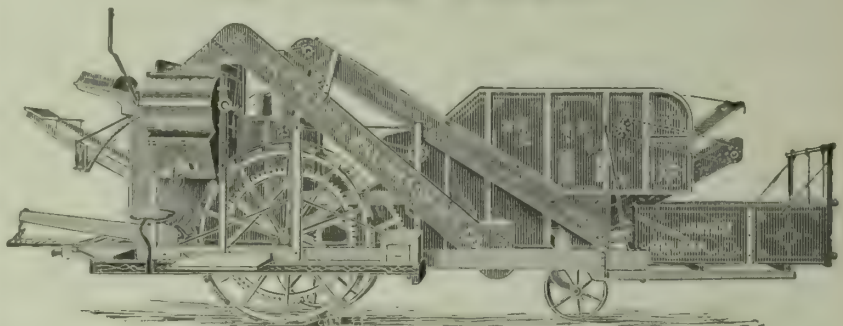


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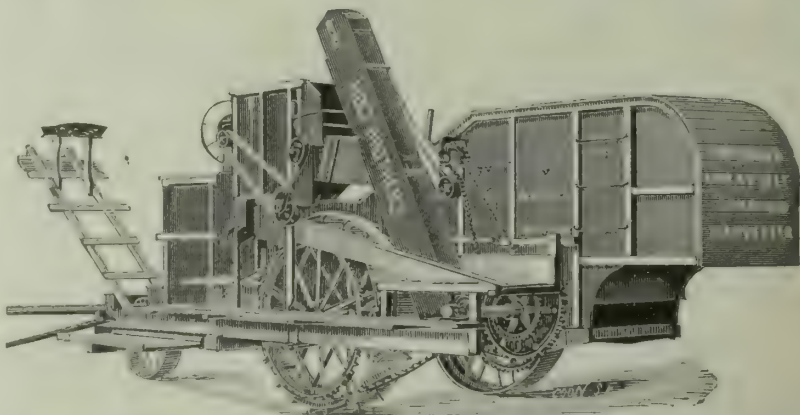
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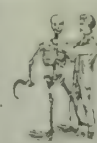
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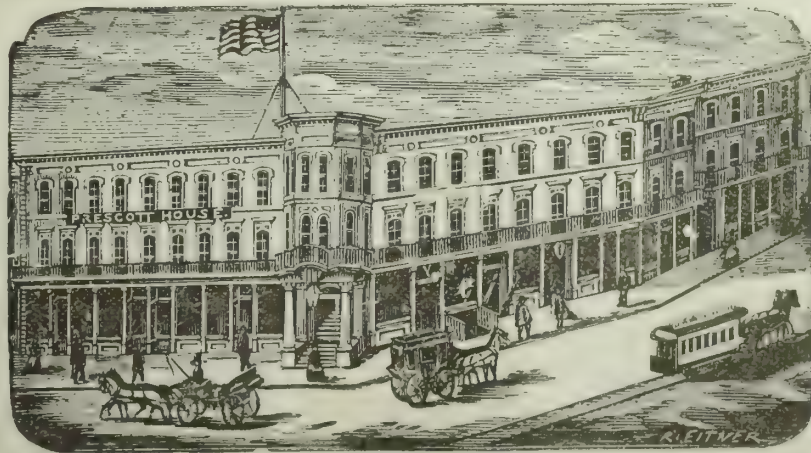
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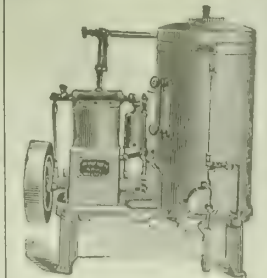
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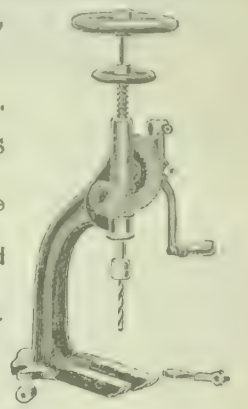
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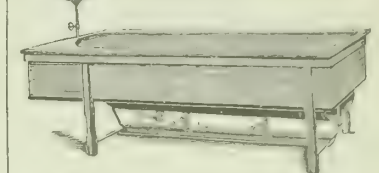
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Manufacturers of all kinds of Perforated Metal, Lip and Lip Hook Screens, round and slotted, or any other kind desired for cleaning and separating grain. Farmers will please take notice that the metal screens do not clog or choke up as do the old wire screens heretofore in use. Also manufacturers of Quartz Screens. Information by mail. California Perforating Screen Co., 45 & 147 Beale St., S. F.

BEST BRICK AND TILE MACHINERY

J. W. PENFIELD & SON
Willoughby, Ohio.



Stands Unrivaled. Send for circular and prices.

ON 30 DAYS' TRIAL.

THIS NEW ELASTIC TRUSS

Has a Pad different from all others, iscup shape, with Self-adjusting Ball in center, adapts itself to all positions of the body, while the Ball in the cup presses back the intestines just as a person does with the fingers. With light pressure the Hernia is reduced, and a radical cure certain. It is easy, durable and cheap. Sent by mail Circulars free. EGGLESTON TRUSS CO., Chicago, Ill.

THE DOG In health, habits and disease. All breeds and treatment; 60 cuts; 26c. This office.

The Celebrated Light Draft Randolph Steel Header. CHAMPION PORTABLE BALING PRESS.

GREATLY IMPROVED FOR 1889. ALL DEFECTS REMEDIED.



It is the Lightest Draft, It has the Best Elevation, Double Drapers in the Elevator, It is Simple in Construction, It is the Most Durable, It is Guaranteed to be the Best Header in the World.

1889 New Steel 8 ft. Header, 36 in. Drapers. 1889 New Steel 12 ft. Header, 40 in. Drapers.
1889 New Steel 10 ft. Header, 40 in. Drapers. 1889 New Steel 14 ft. Header, 40 in. Drapers.
WRITE FOR PRICES.

Has Double Elevator Drapers. Will Elevate Anything.

Buy the Randolph Steel Header. Champion Double-Acting Continuous Portable Baling Press.

Because it is the Best. Because it is the Easiest Draft on the Horses. Because it Saves all the Grain. Cuts close to the ground or high. Guaranteed to elevate anything that can be cut, and dispenses with the man found in all other headers assisting the draper to elevate. The successful farmer buys the best. The Randolph Factory builds more and sells more Headers than all the other factories combined. It is at the top and is going to stay there.

GRAIN NEVER TOO HEAVY FOR A RANDOLPH.

MESSRS. TRUMAN, HOOKER & CO., San Francisco, Cal.

KINGSBURGH, CAL., June 28th.

GENTLEMEN:—I sold a 12-foot RANDOLPH Header to Mr. Chas. Beasley, yesterday, and it worked very nicely. It took the place of another header of a different make, which he returned; the grain was too heavy for it; but the RANDOLPH walked through it without any trouble. Yours very truly,
W. P. BALL.

A BLOOMING RECORD.

CAPAT, CAL., July 20, 1888.

MESSRS. TRUMAN, HOOKER & CO., San Francisco, Cal.

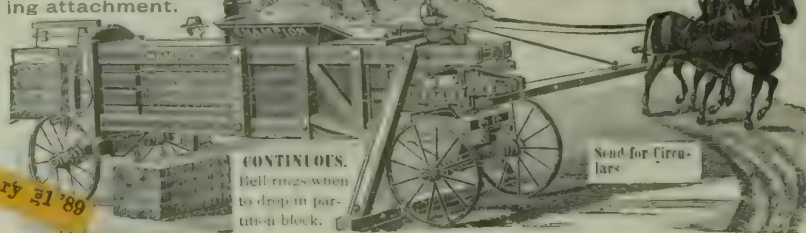
GENTLEMEN:—The 12-foot RANDOLPH Steel Header I purchased of you in 1887, through Mr. B. Howell of Madison, has been used by me for two seasons, and I am highly pleased with it; think it the best Header I ever saw. I have cut 800 acres with it, and can recommend it to any farmer needing a good Header. I have used the Hedges-Haines, and the RANDOLPH is far superior. I cut 10 days on the hills this season, and the Header will elevate in any place. Yours very truly,
J. R. PARKER.

Agents for the McCormick Mowers, Reapers and Twine Binders. Old's Hollow Steel Axle Wagons are the Best in the World.

CHAMPION CONTINUOUS DOUBLE WORKING BALING PRESSES.

Bale one to two tons an hour. Loads 10 to 15 tons in a Car. Bale weighing attachment.

Uses no door. Easy on man and beast. Turning either hand wheel effects tension on all sides at once. Is Steel Lined.



EVERY PRESS WARRANTED. STEEL WHEELS WITH 5 INCH TIRES ON TRUCK.

With Double-Acting Rebound Plunger Power and Quick Relief Continuous Bale Chamber

With Bell Attachment which Rings when to Drop into Partition Block.
FOR HAY, STRAW, MOSS, ETC.

Champion Double-Acting Continuous Portable Baling Press.

BALE WEIGHING ATTACHMENT.

By the use of same each bale can be weighed accurately as it passes out of the press, which is very desirable when wanting the correct weight of each bale. Being attached to press, is always ready and no trouble to move it about, as is the case when using a platform scale, yet it is just as correct (warranted).

See it! Try it! and you will be sure to buy it. Everything ready to work—even a Fork wherewith to feed it.

Continuous! Making Bales Without Intermission. No stopping to tie. No doors used, to be handled 1200 to 2000 times a day.

The Best Is the Cheapest. Size, 18x22, \$450, Complete with the Best Bale Weighing Attachment.

TULARE, CAL., May 4th, 1889.

MESSRS. TRUMAN, HOOKER & CO., San Francisco, Cal.

GENTLEMEN:—In response to yours of even date, will say that all the Champion Presses we sold last year gave you satisfaction and, as far as we have been able to ascertain, their average baling capacity is 10 tons per day. Those two presses you speak of did bale 16 or 17 tons once or twice in a day, but of course this they could not do only under favorable circumstances. Yours very truly,
LINDER HARDWARE CO.

BUY THE GOLDEN SHEAF BINDING TWINE.

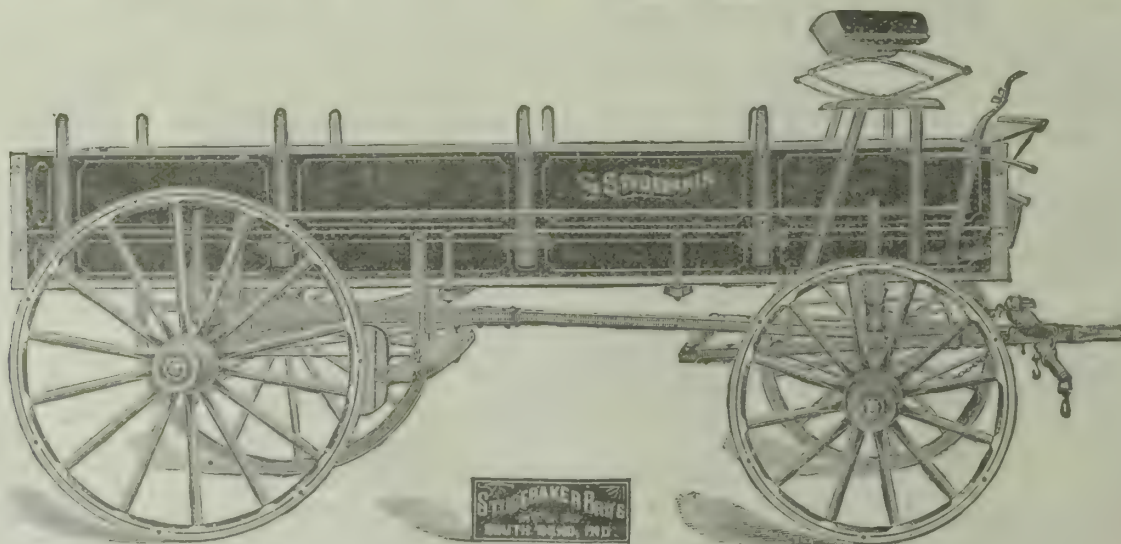
Made of pure Manilla. The only reliable Binding Twine in the Market. Write for prices.

TRUMAN, HOOKER & CO., 421-427 MARKET ST., SAN FRANCISCO.

STUDEBAKER BROS. M'F'G. CO.

MANUFACTURERS OF AND DEALERS IN

Carriages, Buggies, Carts,



WAGONS.

Nos. 201 and 203 MARKET STREET,

SAN FRANCISCO, CAL., U. S. A.

E. E. AMES, Manager.

Send for Catalogues.

PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXVII.—No. 21.

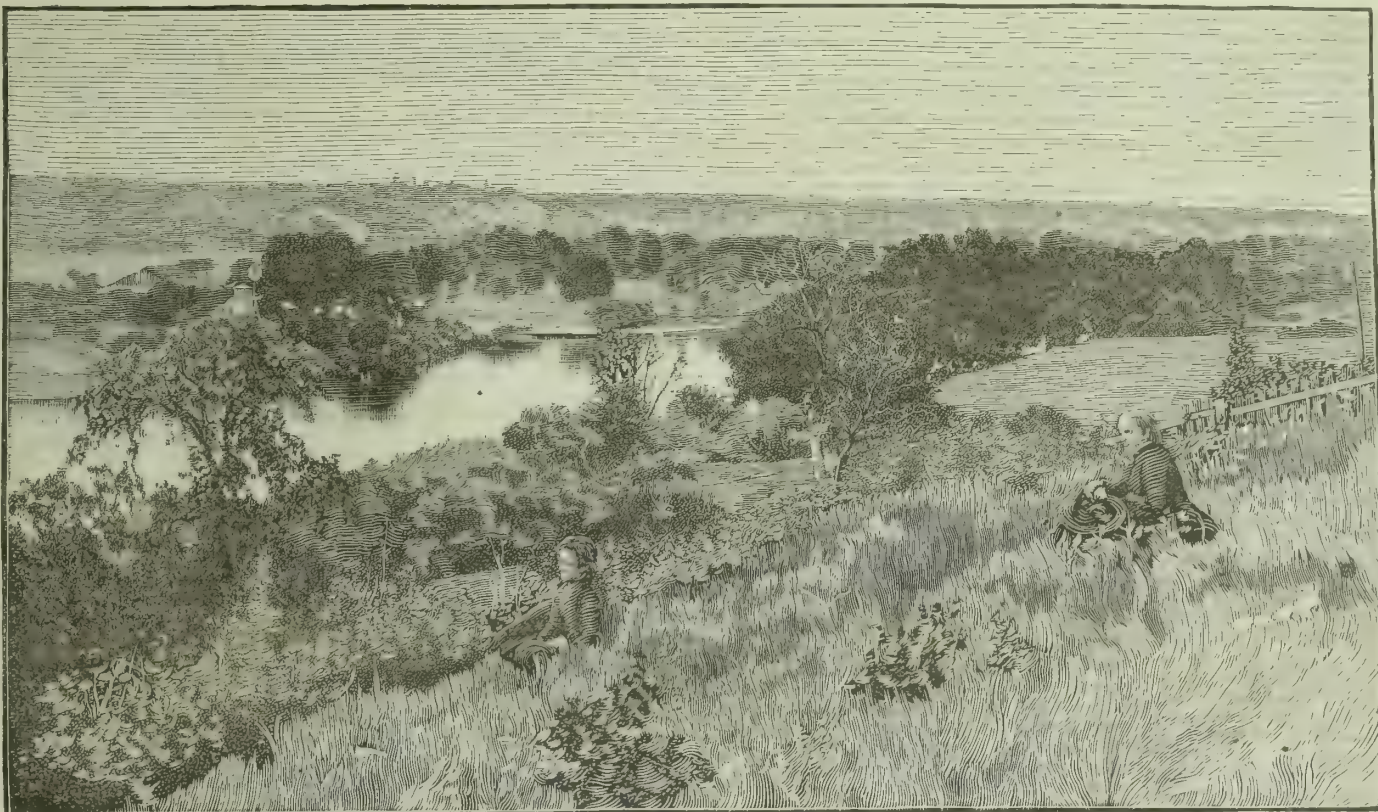
SAN FRANCISCO, SATURDAY, MAY 25, 1889.

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SINGLE COPIES, 10 CTS.

Our Rivers.

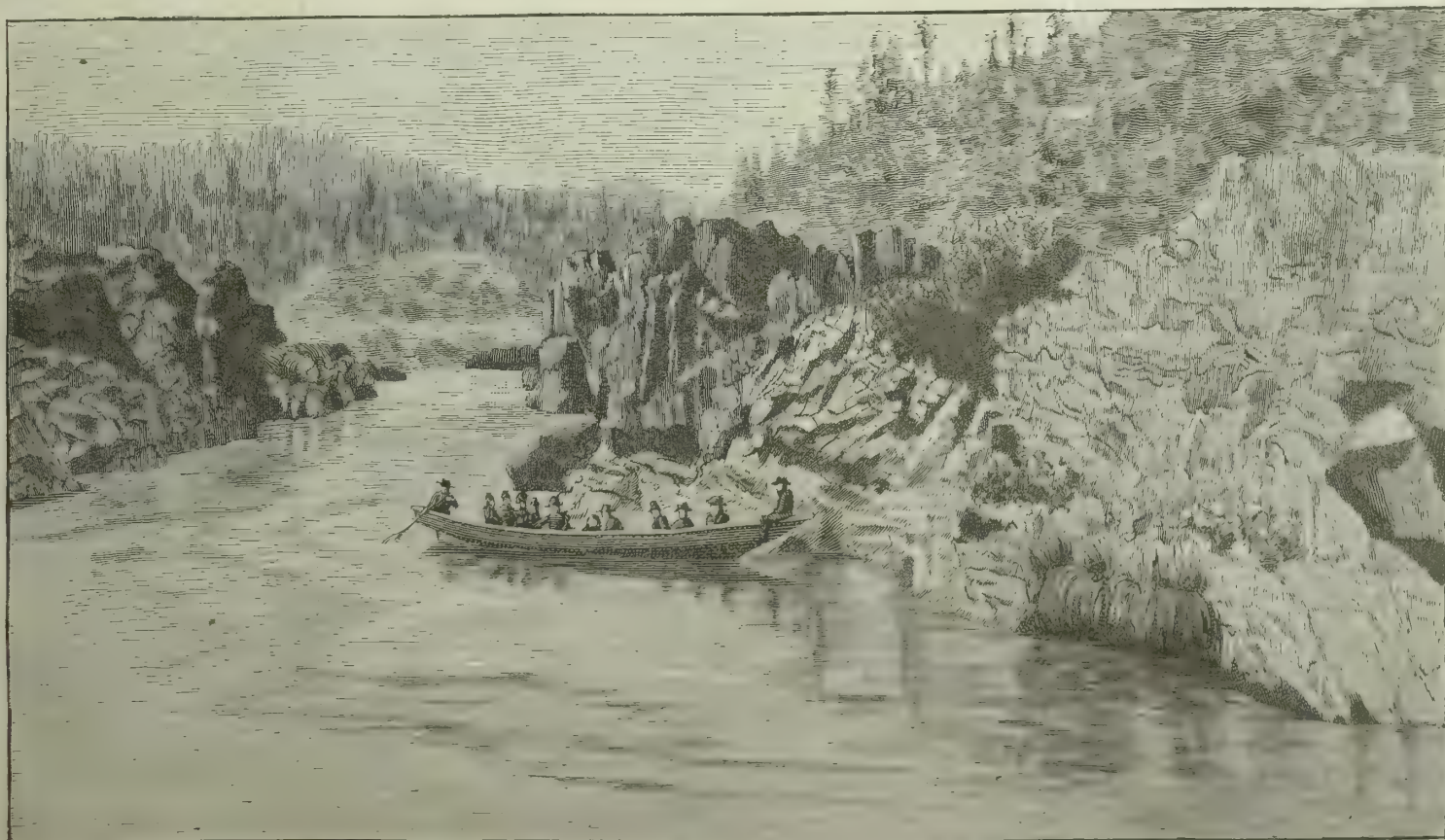
The excursion of Californians to attend the meeting of the Oregon State Grange naturally turns the thought northward, and as pertinent to the occasion we present views in the region which has but recently been made easily accessible by means of the new overland railway from California to the great Northern States of the Pacific Coast.

One who forms an idea of California rivers by the broad sluggish water-courses which intersect our broad valleys, running bank-full and fringed by tuiles, might conclude that our streams are quite devoid of the picturesque



IN THE UPPER SACRAMENTO VALLEY—THE SACRAMENTO RIVER AT REED'S FERRY, NEAR REDDING.

river in the broad valley is wide, quiet, indolent, good to run steam-boats on, until nearly ruined by debris, but not calculated to awaken much admiration. The river in the upper valley is quite another creature. About on the southern boundary of Shasta county the great floor of the valley terminates, and above that is the upper valley with its many arms with their inclosing hills and mountains, forming a country rich and picturesque, which extends northward many miles before the higher mountains close in and place the crown of eternal snow on Shasta's brow. It is in this upper valley that our



PITT RIVER NEAR ITS JUNCTION WITH THE SACRAMENTO, ABOUT TWENTY-FIVE MILES FROM REDDING.

beauty which fills the poet's verses and covers the artist's canvas. This conclusion would be a sad injustice to California rivers, for if one will pursue them toward their sources he will come at length to clean-banked streams flowing

through beautiful meadows and further beyond to the mountain torrents dashing along between rocky barriers through which they have cut their course. Instead of California rivers being sluggish and dreary, they are, in parts of their

courses, at least, as active and as full of picturesque life and beauty as nature can make them.

The two sketches on this page will serve to illustrate this statement. The Sacramento

scenes are to be found. The first, of the Sacramento river, shows the clean-sloping banks of the river, here and there shaded by overhanging oaks, and just behind the verdant meadows

(Continued on page 504.)

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Letter from Holland.

EDITORS PRESS:—As an introduction to such of your readers who ask what on earth can induce any one to write a letter for the Rural from this far-off western shore of the European continent, it behooves the writer to explain that he (a good many years ago) lived near Santa Rosa, was a member of Santa Rosa Grange and a constant reader of the Pacific Rural Press.

Circumstances over which I had no control caused me to return to my native country, Holland, but my sympathies remained with the State I had learned to appreciate. Being a farmer and cattle-breeder, my position as manager of the Model farm at Winkel, North Holland, soon gave me occasion to get acquainted with nearly all the most prominent American importers of Holstein-Friesian cattle, and I assisted in buying the whole herd of prize animals for the well-known firm of Messrs. French Bros. at Cincinnati, Ohio.

As your readers probably know, the protective measures adopted by the Holstein-Friesian Herdbook Association, charging heavy registry fees on all imported animals, soon put a stop to importation from Holland, which for the last two years has ceased altogether, never to revive any more, according to my views. This, however, did not prevent me from feeling continually interested in American cattle matters generally and to keep track of many renowned animals in particular. The article on J. H. White's Holsteins, published in the Press of December 1st, made me feel specially pleased with the interesting contents of a paper whose weekly arrival I value very high.

The Annual Stock Show at Alkmaar held on the 12th inst. was as successful as ever. As there have been imported from here into the United States more Holstein-Friesian bulls of the famous Willem breed than of any other family, it may perhaps interest some of your readers to know that Mr. J. Bakker at Wieringerwaard, North Holland, the original owner and breeder of Willem No. 82, Netherland Herdbook, carried off the honors of the day, as he has done already so often before. In the class for two-year-old bulls, he got first prize with Riep II, No. 1376, N. H. B., and second prize on Apollo No. 1269. In the yearling class he gained first and third prizes with Oscar and Boulanger. Pretty good that, I think, and with a strong competition against him from all parts of the province, too.

On the first of June all English ports are to be opened for our Dutch cattle, after having been rigorously closed against us during the last 17 years, in which our stock has been landed at Deptford to be slaughtered there. This opens an extensive market for our milch cows and young breeding animals, and our breeders feel quite jubilant in consequence.

Free-trade England, however, is only partially pleased with the prospect, and under the plea of fear for contagious cattle diseases, a strong protective movement is set on foot to have the Privy Council retract its resolution, passed only about four weeks ago. Our English neighbors are very strongly in favor of free trade—if it suits their convenience.

When reading the Rural I often exclaim, "What a change!" thinking of California as it is now and when I left it in 1875, its progress during the last five years and its glorious future, and yet many things seem to remain as they are that should have been altered long ago.

Surely your Granges are mainly in a flourishing condition, yet how many (dormant) members and brother farmers, non-members, should join the work in earnest and help to spread its beneficial influence far and wide. The article on page 285 of the Press, on "The Late Legislation," gave me special reason to think so.

To an outsider it seems almost incredible indeed that such things can be published and not be followed at once by an action for libel and slander, or, if true, by official measures to wipe out such a dishonor from the history of your people. If I was to translate that article in our language, and publish it, my countrymen would either think that I had been inventing a story, or conclude that the free and enlightened American citizen in the State of California is, after all, not much better than a weak-minded and oppressed slave, contented to live under and endure a rule that is a perfect shame to his country and himself. If that is the result of a progress never before witnessed perhaps in the history of any State, you might well wish to go ahead less fast and more in ordinance with those principles of honor and integrity which are the unmistakable evidences of a people's true enlightenment.

Fourteen years ago the mining-debris question was in full sway, and, according to the Press of the 23d ult., miners in Shasta county still destroy the grade of nature's waterways, thereby actually damaging the best part of several farms. I wonder if in your towns and streets any man is allowed to carry on his business when, in so doing, his neighbors or the public are put to any inconvenience, but many a miner seems to think it only fair if he is allowed to do so undisturbed for any length of time. It shows, however, that to make a law is one thing and to enforce it is another, especially where the coolest disregard of

other people's weal or woe is a simple matter of course.

Another article, on quite another subject, made me ask how the real practical American of the present day can be so impractical in a simple thing of daily occurrence. I mean where, in a former issue of the Press, an over-worked housewife complains of her manifold and endless duties. Now every physician will tell one that fresh-baked warm bread is an unwholesome and indigestible because unripe article of diet, but as a rule, and no matter how early the farm hands go to their work, the woman must have hot bread ready for breakfast. How much easier for her and how much better for the health of her children and all concerned would it be if light wheaten bread, made the day before, was considered good enough for anybody. The American nation would soon lose its reputation of being more dyspeptic and swallowing more patent medicines than any other nation in the world.

WILLEKES McDONALD.

Callantsvog, Holland.

Cloverdale Precinct, San Bernardino County.

EDITORS PRESS:—Wednesday afternoon, 5th instant, we were treated to a genuine thunderstorm, accompanied by hail, which did some damage to hay in the field. The damage was slight in our neighborhood, as our land is high and porous, so that the rain did not keep the surface wet long enough to cause the hay to mold. Haying is almost over, and heading will begin in a few days. There will be a large amount of barley thrashed this year, as the hay crop was not very profitable last year; but I fear the same will be said of the grain, as many who made hay exclusively last season will make none this.

The grasshoppers are damaging the late barley, and unless something is done soon they will become quite a plague in the future.

A few weeks since, in company with several of our neighbors, and some friends from Los Angeles and Carpinteria (your correspondent L. B. Cadwell among them), we made a trip to the Hot Sulphur springs, about 12 miles east of here and northwest of San Jacinto, and spent the day in bathing, feasting and having a good time generally. There is a small bath-house, with tub and shower-bath free. There is hot and cold water, fresh or sulphur as you like it. We found there a family from Ohio who claim that the water is doing them much good. I have heard others claim that they had been greatly relieved in rheumatic complaints by bathing in this water. I am told there are several such springs between here and San Jacinto. Our friends expressed themselves as much pleased with the country generally, and with our claims on the high lands particularly.

South of us, 12 miles away, but in plain sight, is Perris. Between here and there are extensive grain-fields with an occasional orchard beginning to show up. A little west of south and about seven miles away is Alessandro, surrounded by a good country that is still awaiting the magic touch of the plow to be converted into an earthly paradise. They are sinking for water there now, and at last reports were down nearly 100 feet with water within 28 feet of the surface in a seven-inch pipe. Once let them get the water to flow, and the fortune of the owners is made.

Potatoes are getting ready for digging. Peas and lettuce are getting old. Beans are forming, and corn is in tassel. Bees, with us, are not doing much yet.

L. S. LYMAN.

Alessandro, May 14, 1889.

THE IRRIGATOR.

Irrigation Cheaper than Rain.

The following paper was read before the State Fruit-Growers' Convention at National City, April 17, 1889, by L. M. Holt of San Bernardino:

Water is essential to plant life, and whenever too much water or too little water is used the highest state of development is not reached. One plant differs from another in the amount of water necessary to the best possible growth and development, but each variety of plant life must have the amount of moisture best suited to its peculiar needs in order to make the best possible growth—no more, no less.

There are two methods of applying water for the benefit of trees, vines and growing crops. One is natural and the other is artificial.

In all departments of domestic economy nature furnishes the raw material and man utilizes it.

Lightning is the active development of electricity by nature. As such it is of little value to man. But this same element, controlled, has revolutionized and is revolutionizing the world.

Over a great portion of the earth's surface the application of rainfall to the promotion of plant life is so irregular that the artificial application of water has been reduced to a system and a science. In fact in no part of the world is the rainfall so distributed that the best results from agricultural and horticultural pursuits are obtained except by means of irrigation.

In the great Northwestern States the lack of a proper amount of rain, or a little too much rain at the proper time, annually reduces the yield of grain and other crops. And while there are occasional tracts of land on which in a given season the maximum yield of grain may be obtained, yet such maximum yield is the exception to the general rule.

In Florida the annual rainfall exceeds 50 inches, or an average of an inch per week—over four inches per month. In San Bernardino the average rainfall for January, the wettest month of the year, has been only three inches. Thus we find that the average wettest month in San Bernardino is only about two-thirds the average monthly rainfall of Florida throughout the entire year.

It would seem that if California could have its winter rainfall extended throughout the entire season, irrigation here would not be a necessity, and yet the ablest horticulturists of Florida are discussing the proposition of establishing irrigation works in that State, where a half more water falls during each month in summer and winter than falls here in the wettest month of winter, and they assign as a reason that because they cannot have their rainfall at just such periods as they need it, the crops are injured and the best results cannot be obtained.

Whether it pays to irrigate depends, of course, upon circumstances.

If it were practical to irrigate the crops in Iowa and Illinois, it would not, as a rule, pay to do so.

A wheat-field, for instance, in Iowa will yield 15 bushels of wheat per acre in a good season, and this is reduced to 10 or 12 bushels in a poor year or increased to 20 bushels under favorable circumstances. The wheat sells at \$1 a bushel when times are good. The difference between a poor crop and a fair crop is only, say, five bushels or \$5, from which the extra expense of harvesting, thrashing and marketing must be deducted. If the irrigation of a field of wheat would increase the yield from 10 to 15 bushels per acre, it would not pay to so apply the water, for the expense would be more than the increase of crop. The same rule would apply to nearly all other crops in that section of country, except it be to small fruits and vegetables.

In this State we have certain crops which cannot be irrigated because the expense is greater than the increased income. We sow our small grains in fall and winter and trust to Providence for bountiful rains and a bountiful harvest, or content ourselves the best we can with a light rainfall and a light harvest. In some sections of the Upper San Joaquin valley, where the conditions of soil and water and its application are favorable, it has been found to pay to irrigate winter wheat and produce a crop that would yield from 40 to 60 bushels per acre; but even in those sections wheat culture is being superseded by fruit culture because the financial results of fruit culture are more satisfactory.

The first impulse of a man when he arrives in Southern California from a rainy section of country is to exclaim: "What a country this would be if it only rained here in summer!" After he has been here a few years his exclamation is: "How fortunate it is that it does not rain here in the summer season!"

There are two reasons why this last proposition is true. The first is one of health and the other is one of wealth.

With summer rains Southern California would have all the bad points of a Florida summer climate with its malaria, yellow fever and troublesome insects which find a genial home in a moist climate.

With summer rains here it would be impossible for us to produce the superior oranges for which the interior valleys of this Southern country are now noted.

This may seem like a strange statement; but the fact stares us squarely in the face that the markets of New York City, Chicago, Boston and other Eastern cities declare unanimously that no section of the world sends to those markets as good an orange as the Riverside Washington Navel, as produced in the interior valleys of Southern California.

That superior orange is not the result of superior soil but of superior climate, of which the rainless, dry summer is the principal factor.

Is irrigation a burden? Let us see. The grain crops of the Western States are, as a rule, decreased in amount 20 per cent by irregular rainfall from what they would be if the rains came in quantity and time to do the most good. This is a safe estimate. Apply the same rule to our orchards, and what is the result? On our ordinary peach and apricot orchards that yield, say only \$100 an acre, a loss of 20 per cent means \$20 an acre. This is saved by irrigation at a cost of half the amount, or less, while in the orange orchard, which yields from \$500 an acre upward, a loss of 20 per cent means a loss of from \$125 per acre upward, and this is saved by irrigation.

We all know what effect a drouth has on a fruit orchard. Visit the orange orchard of the careless owner who skipped an irrigation last summer in August, and you will find a small crop of small oranges that sell for a small price, which is in entire keeping with the small amount of judgment exercised in caring for the orchard. This skipping an irrigation is on a par with the non-irrigated sections when it forgot to rain for two months, and the result is the same also.

It is impossible to complete this subject in a single paper, but at the risk of too great length

I desire to call attention briefly to increased water supply, both artificial and natural.

A few years ago the most enthusiastic boomer of Southern California could not hope that one-half or one-quarter of the arable land of this section would ever be brought under cultivation because of the lack of water. To-day I feel safe in predicting that the time is not far distant when practically every foot of arable land in Southern California will be brought under successful cultivation—water for irrigation having been found where irrigation was necessary.

The water supply during the past few years has been materially increased and in many places more than doubled by artificial means, and this development is going on to-day at a rapid rate.

First—The natural flow is being saved by the construction of conduits—pipes and cement canals—which save all the water in the streams and put it where it will do the most good.

Second—The natural flow of our streams is being increased by running tunnels under the bed of the streams to take the underflow which otherwise is lost.

Third—Artesian wells are being sunk in large numbers and large irrigation systems are being formed and an abundance of water is being obtained from this one source alone which is adding millions to our wealth and thousands to our population.

Fourth—Storage reservoirs are being successfully built. There are at present three large reservoirs completed and filled with water. The first attempt was the Bear Valley reservoir in San Bernardino county. It is a grand success, and no one can look into the future far enough to see the vast acreage that reservoir will eventually irrigate. The Cuyamaca reservoir and the Sweetwater reservoir in San Diego county were next completed, both of which are more than meeting the expectations of their promoters. The Hemet Lake reservoir near San Jacinto and the San Luis Rey reservoir are both in process of construction and others will follow. This shows the artificial increase of irrigating water.

While man is at work helping himself, nature is also at work to prove the truth of the old adage that "God helps those who help themselves." And while man is at work increasing the water-supply by artificial means, nature is at work sending us an increased rainfall, and this increased annual rainfall is the result of man's work.

It is a well known fact that in the State of Nebraska the rainfall has very materially increased during the past 30 years, and that to-day good crops can be raised where before nothing could be raised at all. The Government records show this marked increase of rainfall since the settlement of that country. This increase is traced to two causes. One is the establishment of railroads which have an effect upon the electrical conditions, and the other is the planting of trees and breaking up the surface of the ground, and thus gradually replacing the barren plains with green verdure.

The same rules apply to Southern California, and let us see what the result is. San Bernardino has a record of the rainfall for the past 19 years. A study of the table shows the average rainfall for the several months during that period of 19 years to be as follows:

Months.	Inches.
July.....	.03
August.....	.07
September.....	.05
October.....	.43
November.....	1.68
December.....	2.59
January.....	3.36
February.....	3.10
March.....	2.49
April.....	1.64
May.....	.46
June.....	.68

The first of February appears to be about the middle of the rainy season, as 8.61 inches fell before that time and 7.83 inches after.

Let us divide this period of 19 years into two sections of nine years each, leaving out of count the present unfinished season, and then make a comparison of rainfall during the first section with that of the other.

During the first nine years of the nineteen-year period, the rainfall averaged 15.20 inches each year, and during the next period of nine years the average annual rainfall was 17.44 inches—an increase of 2.24 inches. This increase is not very much and yet it is an increase of nearly 15 per cent and enough to frequently turn failure into success.

This increased rainfall becomes more valuable when we show that it is to be found in the spring of the year, when most needed. During the first nine years we find the average rainfall in March 1.07 inches, while in the second nine years it is 3.50 inches, while the rainfall for April increases from .67 of an inch to 2.64 inches, and in May the increase has been from .23 of an inch to .68 of an inch.

This period of comparison is not long enough to give conclusive results, still the records point very strongly to the theory that as the country settles up the rainfall increases and comes at periods when it is most acceptable and does the most good.

It is well enough to note also in this connection that the rainfall of October has not increased, while that of November has been somewhat less. The principal increase of rainfall appears to have been during the months of March, April and May.

If man continues to develop water by means of tunnels and artesian wells and to store

the surplus water from the winter rains in vast reservoirs, to be used in irrigating the plains during the dry season, and if nature becoming enthusiastic over the successful works of man sends down additional rainfall at a time when it does the most good, surely the time is not far distant when every arable acre of Southern California will be teeming with life and activity; every ten-acre tract will contain a beautiful home and a contented, independent family; each neighborhood will build and patronize its public school; each settlement will contain its church building with its spire pointing heavenward; each valley will contain its village and business houses; each county will have its commercial center and Southern California will have a larger population to the square mile than any other agricultural section of the globe; and then the people will verily believe that irrigation is cheaper than rain.

HORTICULTURE.

The Filbert.

EDITORS PRESS:—Since you have introduced the subject of filberts, I would ask what profit is in them. For my part I have not found but a call for the exercise of patience in them. If I were to write my feelings I would say, root them out; they are but a delusion and a snare.

Seven years ago I planted the Red Aveline, the Witch Aveline, the Sicily nut. I planted about 200 in rich black loam and cultivated them thoroughly every year; making a perfect mulch of the top of the soil. The net result of all my toil and waiting has been two Sicily nuts.

My trees grow well enough, but they just won't bear. Who can make a better showing? Let him show it and if possible give the reason.

The native hazel thrives and bears all around these hazels of mine. My advice to any person contemplating the putting down of hazels is, don't.

A neighbor who saw me planting my hazels called me a "crank," at which I waxed exceedingly wroth; my neighbor was right, though; at least circumstances point strongly that way.

JOHN A. STUART.

Santa Cruz.

The filbert is usually condemned in California for non-bearing, and yet Mr. Gillet of Nevada City seems to do well with it and finds some varieties very fruitful. We should like to know the experience of all who have tried the nuts.—EDS. PRESS.

Fruit Nomenclature in California.

At the National City Convention the following report was received from Prof. George Hermann of Napa:

As you have seen fit to appoint me chairman of the Committee on Nomenclature, an office for which, although I see the necessity and advantages of our fruits being properly named, I am but little qualified, as I have but a short experience in this State, I am willing to do what I can toward attaining an object of which we all must see the utility and benefits. Therefore, a few remarks on the subject may not be out of place.

While we often boast, and no doubt justly, of being the greatest fruit-growing State in the Union, it may also be said of us with equal justice that less attention is paid to fruits here to have them correctly named than in any other State. I need only refer, as proof of this assertion, to our exhibition, where more than half of our handiwork fruits either appear without name or label, or under entirely wrong ones. I have often heard strangers, visitors to the State from abroad, remark: "You Californians raise splendid fruit. How is it that you do not seem to care whether they have a name or not?" If you look at the market report of our papers you generally see but two kinds of pears mentioned, "Bartlett" and "Pears," and so it runs through all our fruits. Many of our fruit-growers do not seem to care what they sell, and the dealers still less at the hucksters' stands. And yet it is of the greatest importance for every one to know what he is growing and selling. If every package came correctly labeled and stamped, the dealer would know better what he could ask for the grades, and the grower could know better what to expect for them. Besides, the buying and consuming public would buy oftener, and be willing to pay a better price for a fruit they know and like if they could always obtain it true to name. And it is certainly to the interest of every fruit grower to know which variety of fruit sells best and is most profitable to him in his particular section.

But if there is confusion and uncertainty about old and well-tried varieties, this is still more the case about the many valuable seedlings California has produced. We find them under about as many names as the sections in which they have been grown have seen fit to give them. The origin of these natives, as they are of our soil and climate, and therefore more likely to be adapted to it and valuable, should be carefully traced up and preserved. It is always customary that the originator has the right to name them, and he should have the preference in doing so. The system followed in Downing's work, our great authority in fruit-

growing, is that the original name of a variety be given first, then the synonyms under which it may be known in different sections, and to this is attached a full description of its origin, growth of the tree, whether upright or straggling in its growth, color of the wood, shape of the leaf, shape and color of the fruit, texture of its flesh, time of ripening, keeping qualities, etc.

As to the special duties of our committee, I take them to be the collection of all the information we can obtain in regard to varieties, their origin, the name by which they should be generally known, and to give such plain descriptions of their growth, their fruit, time of ripening, etc., as will enable every grower to identify them; and to report to you from time to time what we have been able to learn. But we can do very little unless we are assisted by our fruit-growers. They must make it their business as well to help us in every respect, by sending specimens by mail or express securely packed, when they are ripe enough, but not too ripe, together with leaves and young shoots, and all the information they can give as to bearing and quality, origin, chief use, etc. If this is done we can hope to aid them by publishing full reports in your annual transactions. Without such active co-operation on their part we can do little or nothing. Let each one communicate with that member of the committee who is closest to him, and I hope we may be able to gather such a fund of information as will enable us to bring some light and order into the present condition of our nomenclature, which has made us so often the laughing-stock of our Eastern, more careful brethren. It should be our ambition not only to grow the finest fruit, but also to add in all the knowledge which can be brought to bear on the subject. It is your cause, fruitmen of the State. See that you further it by giving us all the aid you can.

The Olive in California.

At the Fruit-Growers' Convention in National City, the following essay was read by President Ellwood Cooper of Santa Barbara:

This subject was very fully discussed at the Chico Convention, but so far as the varieties were concerned the conclusions were rather unsatisfactory. The numerous discouraging reports upon the Picholine have disheartened those who have planted this variety, and left thousands of the young trees in the nurseries unsalable. The demand for the Mission cannot be supplied. New varieties are being imported both for oil and for pickles. New planters cannot be too careful about the selection. The Mission is the only variety that has been tested in California, through a number of consecutive years, for the quality and quantity that can be produced from a given number of pounds of ripe fruit. For pickling, the demand is almost wholly for the Spanish Queen, the preference given on account of its size and beauty. It is my opinion that the pickles made from the Mission olive, once properly put upon the market, will, when their superior quality is known, supplant the Spanish Queen. The Mission, being an oil olive, is richer, more delicate in flavor, and as a matter of diet, far superior; consequently the growers of the Spanish Queen may find, after many years of waiting, that they have made a mistake. Oil-making will become general throughout the State. The pickler of the Mission will find ready sale for his surplus, and such berries that are not suitable for pickling; while the Spanish Queen cannot be used for oil-making. It is not an oil olive. The Mission olive, if carefully handled, will retain in the pickle all the oil. It is rich in life-giving substance. It is a freestone, leaves the seed readily and has more pulp than a Spanish Queen of twice the size.

There are several different theories on the number of trees to plant on an acre. In the essay of Charles Dondero, read at the Chico Convention, 40 feet were given as the proper distance, and the distance advocated by the Italians, and therefore worthy of the greatest respect, being the experience of generations. We were recommended to plant vines, vegetables or something else between the rows. A great deal of our land is not suitable for either, therefore it is not more profitable to plant olives, or, in other words, to plant 20 feet each way, and in 12 to 15 years, when the orchards become crowded, remove every other diagonal row? This would leave an orchard with the trees nearly 28 feet distant and 54 to the acre; at 25 to 50 years remove every other straight row and we would have an orchard of 27 trees to the acre and distant from each other 40 feet. This plan of thinning out would answer for many other varieties of trees, where planted too thickly. The value of the wood will more than pay for the expenses of thinning out.

Discussion.

The importance the olive has in California horticulture was demonstrated by the lively debate which followed the essay. The dealers who adulterate olive oil with cotton-seed oil were bitterly denounced. Russell Heath, who was at the exposition in New Orleans four years ago and tested the oil exhibits there, gave as his opinion that pure olive oil in this country is scarce except that manufactured in California. Sec. Lelong stated that he had procured what was labeled "Pure Olive Oil," and had found it containing from 60 to 90 per cent cotton-seed oil. He had prepared a bill and presented it to the State Legislature, but it was killed by the lobby sent to Sacramento by the

San Francisco merchants for that purpose. E. W. Holmes of Riverside said that the olive oil manufactured in his city compared advantageously with foreign importations. Several olive-growers in the audience in search of information on the kind of olives best suited for the soil in their orchards were instructed by the Chair, who referred them to the Horticultural Reports since 1885, which contained concise information on that point. Mr. Lelong exhibited his collection of olives and gave explanations. He said that the so-called Picholine is not the real Picholine, which latter is very much larger than its California namesake. J. M. Asher, N. W. Motheral of Hanford, Frank Cunningham of Oceanside, C. M. Alef of Fall Brook and J. T. Bogue of Marysville also took part in the olive discussion.

EDGAR'S TREATMENT FOR CURL LEAF.—As the curl leaf has nearly destroyed the peach crop this season, and all that it can do has already been done, it is useless to prescribe remedies for the result. But as it is liable to occur any other year, I thought I would give a little experience I have had this spring, in arresting its destruction of leaf and fruit. Some years ago a correspondent of the Pacific Rural Press from Ione, Amador county, said that digging the earth away from the tree and uncovering the roots of the tree at the first sign of curl, would arrest its progress. I tried it this spring and can say it has been a partial success with me. The leaves did not curl in the tops of the trees and then I have got a part of a peach crop, and that, too, on the most tender tree we have (the Morris White), so as the "curl leaf" does not only curtail the crop of fruit, but also injures the tree, I am gainer in two points, that is, I have kept my trees growing and saved a partial crop of fruit. There are some I did not experiment on and the leaves curled clear to the top. And here let me say that the Morris peach did not curl and has the crop for this year. Orchardists that contemplate planting the peach in the future please make a note of that, these points are worth considering.—J. R. Springer, in Woodland Democrat.

POULTRY YARD.

Farm Experience in Poultry-Raising.

EDITORS PRESS:—The time was when poultry occupied a place on the ranch only by the sufferance of the farmer, or that it might add to the comfort of his table, but with no idea of any profit. Even now, though poultry-raising has become a business of itself, and fowls are counted among the sources of income on some ranches, other farmers seem to fail to take in the idea that they can add materially to the farm purse. I have been reminded of an old gentleman from Missouri going to reside with a son in Los Angeles whose home was surrounded by an orange grove and all the wonders of flower and fruit of that semi-tropical land. A guest spoke to him of a California winter of bud and bloom as compared to an inhospitable one in Missouri. The old farmer with his opinion of his home land in no whit changed, replied: "I tell you, now, those big log fires of Missouri are mighty nice."

So I have shown a plain margin of profit for our fowls over and above all expenses, and then had a farmer say: "Well, I cannot see any money in chickens." Living on a ranch where grain is raised, and the chickens naturally finding more or less food about the stacks for some weeks in the fall, and also being fed milk from the dairy, it is difficult to arrive at an exact knowledge of profits, but at a time when grasshoppers put an end to grain-raising on our ranch for some years, and we were obliged to buy grain for our chickens, I tried to find the exact amount of money to be made from them.

Having about 30 hens, we raised nearly 300 chickens for market; these, together with the eggs sold, brought \$150. The expense of the grain which was fed the chickens for one year, and the cornmeal fed to young chicks, did not exceed \$60, or \$2 to each of the 30 fowls, and the ten chickens which we averaged raising to every hen. Of course the chickens were fed scraps from the house and milk from the dairy, which was not taken into account; but to counterbalance this no account was made of the eggs used for the table and for cooking purposes. So I consider the best net profits we have arrived at were \$3 to each hen.

Such good results might not have been attained were it not that, living within reach of mining towns, we are provided with an exceptionally good market. Such success in poultry-raising was only attained at the end of much labor. But our successes in life are not usually the result of inactivity.

Some housewives succeed in putting off both children and chickens with so small an amount of care as to be quite beyond the understanding of more painstaking people. If there is one point more important than any other to insure the raising of healthy young chicks, it is certainly cleanliness. The unkempt state of many chicken-houses, and the habit of putting the food for fowls upon the ground, are no doubt fruitful sources of disease among poultry.

Another thing to receive attention in successful chicken-raising is that only young fowls be kept. I do not wish to retain hens in the poultry-yard after they have reached a year

and a half in age—the number of eggs laid after that age materially decreasing and the molting season lasting longer. Chickens seem to enjoy a variety of food, though some farmers, entirely regardless of that fact, keep their fowls entirely upon dry wheat. Good results may be met with by feeding boiled barley to hens a portion of the time. In cold climates it seems well to boil the grain, whether wheat or barley, during the winter months, so that it may be fed warm and thus assist nature to keep up the animal heat. In winter, when there is a scarcity of green food, it is a good plan to chop cabbage for fowls. I also boil and chop up all attainable meat for them, heart, lungs, liver, etc., that are to be had at butchering seasons. An easier way would be to put the raw meat out and let the chickens help themselves, but I have so often seen this done, when the fowls, hungry for meat, would pull and drag it around in the dirt until one's sense of cleanliness would find that method objectionable. By chopping the meat and serving it in clean pans or troughs, each hen has her share, and the trouble is repaid by the increased number of eggs laid.

The gravies or water in which meat has been boiled, when mixed with wheat bran, forms an appetizing dish for fowls.

I find nothing better than cornmeal for young chickens, though it does not seem to be usually looked upon with great favor. The large amount of carbon in corn renders it healthful for early chickens in a cold climate; soaked bread, oatmeal and cracked wheat give them a variety of food.

People who make poultry-raising their exclusive business may have better methods than busy farmers, but we have not for a long time averaged having half a dozen young chickens die from disease in one year.

There are obstacles in the way of successful chicken-raising which it seems almost impossible to overcome. They are vermin and varmints. I have not had the experience of a farmer's wife who said that after using ashes in her chicken-house she had no more trouble with the former. My experience would be that the little insect, so destructive to a healthy condition of poultry, fairly flourishes in ashes, while plentiful use of lime and sulphur, careful attention to cleanliness, and the frequent making of fresh nests, are scarcely sufficient to keep them in subjection. Among the best things for ridding a chicken-house of vermin seems to be cedar or sagebrush hung upon the perches and upon nails and put in the nests.

Some farmers and farmers' wives seem to think the selling of eggs much more profitable than raising chickens for market, but with the prices paid in the past for fowls, experience shows that more can be made by raising chickens if one can spare the time they require. In this section we can realize 30 cents for eggs by occasionally taking advantage of the higher prices offered in some of the mining towns, although they sell at 20 cents in the spring, and have one or two seasons been down to 15 or 18 cents. They are, about the holidays, up to 50 cents per dozen. The early pullets which have received good care will usually lay well by that time. We are not often obliged to take less than \$5 a dozen for chickens when they are old enough to market, while in some of the remote mining towns some years ago they brought \$10 per dozen, though the prices may have materially decreased since then.

One will occasionally hear a farmer say with some self-complacency that no eggs are ever sold from his ranch; as if this fact manifested an unusual degree of generosity. It is possible that on these ranches where no eggs are sold, the home may not be well supplied with all those things which to some one else would be the necessities of life. A lady whose husband is a successful farmer uses the proceeds of the eggs as her spending-money. One season I happened to know that in this way she bought an extension table for her dining-room, and a tasteful set of bedroom furniture. Another farmer's wife bought herself an 80-dollar sewing machine as the result of one season's chicken raising. One woman told me that the proceeds of her poultry, particularly ducks, paid for their provisions—their family was large, a good many children and farmhands.

As to the kind of fowls, there is no doubt many good varieties, each having their friends; for chicken-raising, a cross of Black Spanish and Brahma are among the most satisfactory. For the housewife who adds poultry-raising to a multitude of home cares, a convenient chicken-house should be a necessity. In raising poultry for market, the chicken-house should have two apartments, so that hens while setting may not be disturbed.

M. P. A.

Phumas Co., Cal.

FOOD FOR SHIPWRECKED SEAMEN.—At the French Academy of Sciences the Prince of Monaco read an interesting paper, showing that shipwrecked seamen who have to take to the boats without provisions on the high seas can obtain food from the ocean itself by trailing a dragnet made of any light stuff along the surface during the night. The net will in the morning be found to contain small shellfish available for food. In the sea to the west of the Azores the vegetable matter on the surface teems with animal life and fish which are capable of affording substantial nutriment.

NATURAL COLOGNE WATER.—A spring of natural cologne, whose liquid has been analyzed but has the odor of patchouly, is a new wonder said to have been discovered in Algiers.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Alameda and Santa Clara Grange, Alvarado.....May 25
 Santa Clara Grange Strawberry Festival.....May 25
 San Joaquin Co. Pomona, Lodi hall, Lodi.....May 25
 Bennett Valley Picnic.....May 25
 Butte Mt. Pomona, Masonic hall, Yuba City.....June 29
 Sonoma Co. Pomona, Santa Rosa.....July 17
 State Grange, Sacramento.....Oct. 1

Oregon.

Marion Pomona, Surprise Grange, Turner.....May 25
 State Grange, Salem.....May 28
 Molalla Picnic.....June 4
 Pleasant Valley Picnic.....June 7-8
 Douglas Grange picnic, Luckiamute Falls.....June 7-8
 Lane Co. Picnic, Stafford.....June 15

Some Things in Our Grange Edition.

In our Grange Edition to-day the following matters of interest are mentioned at more or less length:

From Temescal Grange, A Hopeful Outlook for Cambria Grange, A China Wedding, Oregon State Grange, Letters from Howell Prairie, Washougal, Mayville, Surprise and Multnomah Pomona Granges, Women in the Grange, Reception Committee, Gilliam County Council, State Grange Meeting, Political Farmers, Salem Grange, Washougal Notes, Marion County Pomona Grange.

Children's Day.

A prominent clergyman once said that if he could have charge of the education of the children of the country he could have the whole nation inside his church fold. This is mainly true. Making allowance for that obstinacy which characterizes human beings, the great body adheres to the teaching given in early years. The Grange appreciates this, and has provided for the membership of children at an age considerably less than that required for entrance into other places. In some jurisdictions we have also what are called juvenile Granges, which are presided over by a Matron and have children too young to enter the regular subordinate Grange, a training-school as it were. We cannot afford to neglect the children. The adults are too firmly established in their ideas to change them suddenly, but the children can be so trained that we can be sure of succeeding generations. There has been an agitation for years in favor of making extra efforts to fasten firmly the allegiance of the young. A particular day, to be known as Children's Day, has been suggested. On that occasion efforts were to be made by the Grange Lecturers to draw up a program that should make all the young children happy and ambitious for the time to arrive when they can stand before the Grange altar and take the obligation of a Patron. Worthy Master Brigham has designated Saturday, June 15th, as Children's Day. It is to be hoped all the California Granges will keep the day. If it be the regular day of meeting, have the children's part earlier or later; if it be not the regular day, then celebrate it in addition. When all the children are in the Grange and those too young anxious to get in, we shall have taken gigantic strides toward solving the question, How shall we keep our children on the farm?

Merced's Anniversary.

MESSRS. EDITORS:—The Merced Grange celebrated the sixteenth anniversary of that Order, the 4th day of May, with a feast, the program being literary and musical, and on this occasion our little Grangers caused a good deal of merriment with their recitations, which were truly enjoyed by all.

MRS. E. S. ELLIOTT, Sec.

Merced, May 15.

Patrons' Insurance Company.

A party of gentlemen composed of T. Deming, A. Krull, D. Reese, G. W. Hack, J. H. Hamilton, C. Hull, Joseph Simms, L. R. Davis and Judge McKune met at Grangers' hall yesterday to talk over the formation of a business enterprise. It is to be called the Patrons' Mutual Fire Insurance Company, contemplating only country risks.

The organization was not completed at this meeting, but it is expected that it will be ready to enter the business world ere long.—*Sacramento Record-Union*.

BENNETT VALLEY GRANGE is having quite a boom. At the regular meeting held Saturday, May 4, 1889, there were three applications for membership. The officers rehearsed the new ritualistic work, and the Grange made further arrangements for the picnic to be held on the 25th inst.—*Santa Rosa Republican*.

WELCOME.—Sister S. L. Hayes regrets that so few Californians are coming to Salem to attend the State Grange, but she assures us that those who do come will be heartily welcomed.

Grangers' Picnic at Hock Farm.

The Grangers' picnic came off amid lowering skies and chilling winds, and yet so eager was the public to attend the festivities that by 2 o'clock nearly if not quite the usual assemblage found themselves at the historical grounds of Hock farm, the early home of California's most renowned pioneer, General John A. Sutter. The weather had been somewhat threatening for a day or two, but no rain had fallen that would have marred the pleasure found at a picnic; so, although the weather grew more threatening, it became too late to postpone. During the noon hour several showers, calculated to dampen the ardor of the picnickers, fell, but the throng took the joke good-naturedly, and the dancing-platform and the dense foliage of the great fig trees and the various buildings about the place gave very good shelter against the rain. Toward evening the clouds broke up and the sun shone through, rendering the drive home most pleasant, and the close of the day was the most enjoyable of all. The exercises began shortly before 11, and about the same time on the dancing-platform as on the speakers' stand. J. B. Wilkie, Master of Yuba City Grange, not having returned from his business visit to the North and East, Past Master C. E. Williams was selected as president of the day, who called the assemblage to order and bade them welcome in an eloquent and timely address. He then introduced the orator, Dr. C. D. Barrows of the First Congregational Church in San Francisco, who delivered one of the most eloquent and learned addresses it has been our privilege to hear. The doctor is a pleasant speaker and has the rare faculty of holding his audience spellbound. His addresses are frequently interspersed with witticisms that polish his efforts and please his audience. We regret exceedingly our inability to report a synopsis of his remarks; we attempted, but gave it up in despair. The doctor must be heard to be appreciated. Every sentence was a valuable lesson to those of all ages, his advice to the youths of both sexes being particularly appropriate, and they will do well to heed it. The speaker was frequently applauded, and his closing peroration was followed by prolonged cheering and clapping of hands; as the lunch recess was then announced, the doctor received the personal congratulations of a great number of those present. The afternoon literary exercises had to be dispensed with on account of the rain. Notwithstanding the inclement weather, many were present from Marysville and Yuba county, and Live Oak, Pennington, West Butte, Meridian and Sutter City in this county; and the Grangers' sixteenth annual picnic was voted a grand success.—*Sutter Farmer*.

The Check Swindle.

It is sometimes safer to take money than a check. If a purchaser claims that he cannot get a check cashed, it is better to wait and lose a day or two than to be too eager to get the amount due. As this trick, which we find in the *Indiana Farmer*, can be played in California, we reproduce it:

This is the way one farmer allowed himself to be victimized, according to a special from Vincennes, dated April 30th: Three young men stated that their mother sent them to buy a farm, in order to get them out of the city. They agreed with Claiborn Polk, an old and wealthy farmer of Gibson county, to buy his farm at \$75 an acre. Their mother in Chicago sent them by mistake a check for \$2300 more than the contract price. Polk paid the difference and took the check for his farm. The sharpers never came back for the deed. They were tracked to Mt. Vernon, Ind., and lost.

Assessing Trees and Vines.

The last Legislature passed an Act defining the term "growing crops" to include vines, nut-bearing, fruit and ornamental trees. The assessor of Santa Clara county has been disregarding this law in accordance with a circular issued by the State Board of Equalization, and San Jose Grange is now trying to induce him to follow out the law as passed.

The matter having been brought to the notice of Bro. J. V. Webster of Creston, he has written an opinion on the subject, which we publish this week. There are many points in Bro. Webster's article which will interest farmers generally and may, perhaps, aid in the discussion of the subject in the Grange.

Bro. W. C. Blackwood of Haywards expresses his opinion of the controversy as follows:

"I think little can be said on the course of the Santa Clara county assessor, except to denounce him as a violator of law. The State Board of Equalization is not empowered to dictate to county assessors. At most they can only advise. And they are not empowered by law to even do that. Neither they nor county

assessors can judicially decide as to the constitutionality of any law directing their duties. That is the province of the courts. Officers under a law are in duty bound to observe its injunctions till the same has been repealed or judicially set aside. I have not seen the law, but it probably contains no penal clause for a violation of its provisions. Consequently, it leaves taxpayers no remedy but to appeal to the courts for redress."

The matter was discussed at Temescal Grange at a late meeting by Judge Gibson and others, who entertained similar views to Bros. Webster and Blackwood.

Now this matter is of vital importance to farmers generally and every Grange should express its views thereon. Where or in what manner have the farmers of the State a better method of bringing their opinions on such matters before the public than through resolutions by the Grange? It being the only organized body of farmers, its action should be taken as representing the tillers of the soil.

Agricultural Statistics.

At the last session of the National Grange Bro. Leonard Rhone of Pennsylvania offered the following resolution, which was adopted:

Resolved, That the Commissioner of Agriculture be requested to inquire, through the consular system of Government or otherwise, what foreign nations are now importing agricultural products and ascertain what possibilities there would be to establish trade relations for the disposal of our surplus agricultural products; also to inquire what agricultural products are now imported that our country and climate would be capable of producing, and lay the same before Congress and publish for the information of farmers.

In pursuance of this resolution the statistician of the Agricultural Department has compiled the statistics called for, which are published in the May report of the Department.

As to wheat, it says: "Europe is practically the only market America can have for this cereal, and she imports only 144,000,000 bushels a year, raising 1,200,000,000 bushels herself, more than half the world's crops and twice that of all America. Of the European deficiency the United States supplies 95,000,000 bushels."

"In oats and barley there is very small international trade, Europe importing only 19,000,000 bushels of oats, and the United States exporting 2,500,000 bushels. Of barley this country imports 7,500,000 bushels."

"Rye is the great bread grain of Europe, which imports not less than 1,500,000 bushels, and the United States exports less than 3,000,000 bushels."

"The receipts of European countries requiring maize do not make a sum half as large as the products of Illinois, Iowa or Missouri. Great Britain takes nearly three fourths of the total, or 62,000,000 bushels. This country exports 68,000,000 bushels."

"Of potatoes, Europe grows more than she needs, while the United States supplies her deficiency from Canada and Germany."

"Only Great Britain, Belgium and Portugal, of all the European nations, do not produce enough butter to make up the deficiency of 25,000,000 pounds. The United States exports 24,000,000."

"It requires 140,000,000 pounds of cheese to supply the European deficiency, of which 118,000,000 are furnished by the United States."

"Europe gets from South America, Asia, Africa and Australia two or three times as much wool as she imports from the United States. The net deficiency of Europe is 780,000,000 pounds. The United States produces four-fifths of the wool manufactured here. The aim of the wool-growers of this country is to supply home manufacturers; if possible, never to export raw wool. The United States imports net 69,000,000 pounds of wool every year."

In conclusion the statistician says: "About one-tenth of our agricultural products are exported, yet articles shipped abroad are few. They are cotton, tobacco, meats, breadstuffs, butter and cheese. All other articles together are about three per cent of exports."

In response to the inquiry as to what products are now imported that our country and climate are capable of producing, sugar, flax and hemp are suggested, and bagging of cotton, wool and hemp; and it is stated that there is an importation of fruits to the value of \$20,000,000, half of which at least should be produced in this country.

LONG AND SHORT HAUL.—The San Bernardino Board of Trade has filed a complaint with the Interstate Commerce Commission against the Atchison, Topeka & Santa Fe Railroad Company and others, alleging violation of the long and short clause of the Interstate Commerce law, by charging lower rates to Los Angeles, a longer distance, than to San Bernardino, a shorter distance from points on the Missouri river and from St. Louis, Chicago, Cincinnati, Detroit and New York.

BRO. GEO. T. ELLIOTT of Hollister Grange writes that he will attend the Alameda and Santa Clara County Grange Picnic at Alvarado May 25th. We are pleased to learn this, and hope others from abroad will join with the Patrons of the bay counties in a general good time.

A GRANGE is never too young to build a hall. San Antonio, two weeks old, is seriously moving in this direction, and satisfactory results are anticipated.

The Grange Picnic at Alvarado.

The Committee of Arrangements of the Alameda and Santa Clara County Grange Picnic have issued the following announcement to the public:

The Alameda and Santa Clara County Grangers' and Pioneers' Picnic will be held at Alvarado, Saturday, May 25th. R. W. Waterman, Governor of California, and Mr. Joaquin Miller will participate in the cordial hospitalities and brief literary exercises of the occasion. Several representative Grangers and other able speakers are expected to make short and interesting remarks.

Major E. A. Sherman, secretary of the Alameda County Pioneers, will address briefly the Pioneers of Washington, Eden and Murray townships on this occasion.

Music and dancing. A brass band will discourse popular and patriotic airs and furnish suitable music for open-air dancing to the heart's content of "young" and "old."

Patrons of Husbandry, pioneers and farmers, and their families and friends everywhere, are invited to attend. All worthy citizens of town, city and country will be welcome without further invitation. The grove (Mr. Granger's) is close by the depot.

Owing to the short notice given, those feeling interested are requested to call attention to this announcement that others may duly appreciate a quietly social and happy day in the country.

Round-trip rates on the railroad will be 75 cents from San Francisco and intermediate stations and San Jose and intermediate stations; children half price. Alvarado is centrally located between Oakland and San Jose. Trains on the South Pacific Coast R. R. (narrow-gauge system of the S. P. Co.) will leave S. F. at 8:15; leave Alvarado for S. F. at 5 P. M.; leave San Jose for Alvarado at 7:46 and 9:46. Returning, leave Alvarado at 3:52 and 5:55 P. M. Tickets can be obtained of members of the Granges and by specially calling for them at the E. R. ticket offices.

Arrangement Committees—Temescal (Oakland) Grange, W. Renwick, S. H. Dewey and A. T. Dewey; Eden (Hayward) Grange, F. J. Anway, W. C. Blackwood and J. M. McDermed; San Jose Grange, H. A. Brainerd, H. Pomeroy, M. Wingate.

Sacramento Grange Strawberry Festival.

MESSRS. EDITORS:—The correct date of Sacramento Grange's strawberry festival is Saturday, May 25, 1889. If you want to hull strawberries, get there at 11 o'clock; if you only care to convey them to your declamatory aperture, 12 o'clock will do. Our usually accurate secretary, Sister Alice L. Greenlaw, made a slip of pen in locating Granger hall in your last issue—a short distance amounting to only six blocks—for it is situated at 10th and K in place of 16th and K, and from last accounts proposes to stay there. The writer was deaf, dumb, blind and idiotic in announcing a wrong date for the above entertainment. It came about, as you observed, too close application to Bobby. When I wrote you I remember I was trying to settle in my mind whether Bobby could wear papa's pants in 1898, hence my villainous error. Too much Bobby will reduce me to a mild solution of crank, I am afraid. I am glad Bobby is not twins.

Every Granger who sees this is expected to be on hand at the entertainment mentioned. There will be dialogues, recitations, and, I am told, an original feature, which will here be nameless, but something which bids fair to dazzle and mystify the audience will be presented. Fraternally, EDWIN THISTLE.

Union House, May 19th.

[We want "Thistle" for a regular correspondent; yes, double-regular contributor.—Eds.]

San Jose Grange.

Between 30 and 40 Grangers gathered at their hall on Saturday morning.

The Committee on Taxation made a progress report through S. P. Sanders, who had been in correspondence with the Executive Committee of the State Grange.

The matter of Grange picnic was reported complete. It is to occur at Alvarado on Saturday, May 25th, and trains will leave narrow-gauge depot at San Jose at 9:46, calling at Santa Clara and Agnews for those who join it there. The tickets for round trip will be 75 cents. Letters from Governor Waterman and Joaquin Miller were read promising their presence. The Governor's family will come and the poet of the Sierras will escort his venerable mother. Everybody will take a basket lunch and have a good time. The families and friends are invited.

Master O. F. Alley, being himself on the literary program, called Hiram Pomeroy to the chair and read an article descriptive of "Harmony Grange," an ideal body and the type of Grange perfection. Mrs. Hiram Pomeroy read a beautiful selection, "Coming Home," so effectively as to call forth a full measure of applause. Mrs. Fisk of San Miguel, a former member of San Jose Grange, was present, and spoke briefly of her delight in meeting with the Grange.—*Mercury*, May 19th.

THE annual strawberry festival of Sacramento Grange takes place to-day at their hall, corner Tenth and K streets, Sacramento. A general invitation to all Patrons has been extended.

Law vs. Anarchy.

MESSRS. EDITORS:—I have received a letter from Bro. S. P. Sanders of San Jose Grange, which demands more than a passing notice. On or about the 1st of May the brother mentioned, with four other members of said Grange, "were appointed a committee to interview the County Assessor with reference to his manner of assessing property—particularly of fruit trees and vines—which he is doing, the same as in previous years, notwithstanding the law as amended by the last Legislature, classing vines and fruit trees as growing crops." Two weeks since the committee made a partial report, but "was continued and instructed to pursue the subject further, and try to devise some way to compel the assessor to obey the law." The brother desires to know whether or not the Executive Committee of California State Grange has the power and authority "to conduct this matter to an issue which will settle the conflict."

That some action should be taken in the premises is manifest. It has been a subject of much discussion ever since the adoption of the new Constitution, whether or not the words "growing crops," as used in Article XIII, Section 1 of said instrument, should be construed to include vines and fruit trees. In order to finally settle this controversy, the Legislature, at its last session, declared that vines and fruit trees should be deemed and treated by assessors as growing crops; or in other words, exempt from taxation.

In the face of this law the State Board of Equalization has ordered the several county assessors to disregard its provisions. The excuse given by said board for issuing this order to the assessors is the discovery of a Supreme Court decision, in which they claim their position is sustained. It is not necessary here to discuss the spirit and bearing of said decision. It is sufficient to know that the decision 'referred to antedates the enactment of the Legislature, wherein it is declared that fruit trees and vines shall not be subject to assessment. The Legislature which passed this Act contained many eminent lawyers, who are presumed to have known what they were doing. There was a legal doubt as to the exact meaning of the term "growing crops" as expressed in the Constitution. In order to remove that doubt, the Legislature passed the Act referred to, consequently whatever court opinions may have been previously expressed on the subject are irrelevant and void. But presuming that the Supreme Court would, upon presentation, reaffirm the opinion previously given, is that any reason why the State Board of Equalization should assume to nullify the law? It is a non-judicial body, and if it be conceded that it has authority to adjudge or disregard one law, upon the same hypothesis it has authority to disregard or set aside each and every law that may stand in the way of its supreme will.

If one unjudicial body has authority to adjudge a law unconstitutional, certainly, every other unjudicial body has the same right. And if every unjudicial body has this right, every individual in the State is equally potent to set aside each and every law that stands in the way of his own sweet will. This proposition admitted, civil law and order is at an end. The socialist's haven is reached without an effort and chaos comes.

If, instead of the farmer, the law had been passed in the interest of the merchant, banker, or railroad corporation, from the antecedents of the august board, we have every reason to believe that the enactment referred to would have been considered good law, and spared the humiliation of being pitted against a defunct court decision. When the farmer will passively submit, from year to year, and from decade to decade, in allowing his personal property to be assessed in forty odd subdivisions, while the tradesman and merchant prince are allowed to group their immense holdings under one single heading, what better can be expected of an unjudicial body, puffed up with its own importance, assuming to set aside a recent legislative enactment, simply because it favors the fruit-growers of the State? Manifestly the State Board of Equalization has willfully disregarded the law in this matter, and should be brought up with a round turn. There are two methods of proceeding, one to bring an action to impeach the members of the board for a willful violation of the law, and deprive them of their office; and to contest the assessments, made in accordance with their illegal instructions, afterward. If not on this, there are other grounds on which the whole assessment of the State can be overturned and nullified.

Section 3630 of the Political Code declares that "the Board of Supervisors must furnish the Assessor with blank forms of the statements provided for in the preceding section." The statements provided for in the preceding section (3629) which the "blank forms" above referred to must contain, are to be made out in detail, "setting forth specifically all the real and personal property owned by such person, or in his possession, or under his control at 12 M. on the first Monday in March."

Now these "blank forms" provided for in Sections 3629 and 3630 have seldom, if ever, been prepared by, or approved of, by the several county Boards of Supervisors, as the law directs, but in defiance of law have been prepared by the several county Assessors at the insti-

gation of the State Board of Equalization. Consequently illegal. Hence it follows that if the assessment blanks are illegally prepared the assessment made thereon is also illegal, especially when said "blank forms" give the farmer's personal property in detail, and lump the trader and merchant prince's diversified stock. The Constitution declares "that all property in this State, not exempt under the laws of the United States, shall be taxed in proportion to its value to be ascertained as provided by law."

Taking into consideration the utter disregard of the late legislative enactment, coupled with the violation of the Constitution and Sections 3629 and 3630 of the Political Code in preparing the assessment blanks and levying the assessments, the farmers of the State, if they have any regard for the dignity of their calling or consideration for their own welfare, will stand together in self-defense.

The next session of California State Grange will convene at Sacramento fully two months before the State and county taxes become delinquent, and while in session some plan should be devised and adopted that will unite the farmers of the State in opposition to the enforcement of a dictum order and irregularities certainly in contravention of the laws of the State.

Creston, May 20, 1889. J. V. WEBSTER.

Alkali—Its Causes and Remedies.

[Synopsis of an address delivered before the Tulare Grange, by WILLIAM F. STEWART, April 20, 1889.]

The salts commonly known as "alkali," the unwelcome presence of which is so plainly noticeable in many portions of the San Joaquin valley, and which close scrutiny may detect in any part of it, are found blooming out of the rock in the Coast Range mountains, and to a less extent in the southern Sierra Nevadas. In the low lands adjacent to the Coast Range, particularly in the southern portion of this valley, these salts are found below the surface in layers, sometimes several inches in thickness, showing that the nearer one approaches the source of supply, the greater is the amount to be met with, and showing also that there cannot be a radical cure, as rock is constantly decaying and disintegrating, thereby liberating the salts it contains. Salts are not constituent elements of the soil, although the soil and water table may be highly charged with them; yet pure, sweet water is found at a greater depth.

Cause of Alkali Rising.

The action of the sun (or the effect of its warmth) and capillary attraction cause the moisture in the soil to rise to the surface. It in turn seizes on the minute alkaline particles and brings them to the surface, and here, owing to the evaporation of the moisture, they are deposited, sometimes forming an ash-like coating very hurtful to vegetation. Here these salts are left until the rains of another winter wash them back into the soil, where they remain until returning warmth brings them again to the surface. Alkali spots are not necessarily caused by a superabundance of salts in those particular places, but are due to the fact that there is a greater amount of clay in the substrata there than in adjoining land. They therefore hold more water and of course bring more alkali to the top. The presence of black alkali is caused by the carbonate of soda (soda) destroying the humus, or vegetable matters, in the soil. The antidote is gypsum, which should be scattered upon the land before rain or before irrigating. Water is indispensable in bringing these properties together in a soluble condition. An application of gypsum will avail little without the use of water. When the presence of sulphate of sodium (Glauber's salts) is the cause of injury to crops, the antidote to be applied is lime, which should be administered in the same manner as gypsum.

Remedies.

The principal remedies, strictly speaking, are those just mentioned. But alkali may be washed from the soil by irrigation if the water be properly applied. By the cultivation of "root crops," such as beets or carrots, the amount may be gradually diminished. Alfalfa, too, is a good plant to grow in alkaline lands by reason of its deeply penetrating roots. Other crops, whose roots spread through the surface and where the quantity of salts deposited in the manner already described is greatest, will not thrive in strongly alkaline lands. Thorough cultivation is a matter of the greatest importance, for compact ground aids evaporation and thereby brings more alkali to the surface, whereas ground in good tilth retards evaporation. This may be clearly illustrated by placing a wet sponge on a dry brick. The brick will take up all of the water in a short time, but a dry sponge on a wet brick will not absorb the moisture. In washing out alkali there should first be provided a means of drainage. If the water-table (water-level) be low enough and the substrata sufficiently pervious or open, it may be drained into. But ultimately the water will rise so as to injure vines and trees and will finally drown them. The only sure means is to provide a good under-drainage, for to attempt to wash out the alkali without having suitable drainage will increase the evil; the salts must be carried away.

Irrigation.

Water from many sources is not suitable for irrigation. A few facts culled from reports of Prof. Hilgard, from which many of the matters I have mentioned have been collated, will prove interesting. Wells at the Point of Timber in Contra Costa county contain 10 grains of

soda per gallon. To use such for irrigation would be to destroy the soil. Tulare-lake water holds from 27 to 35 grains of soda per gallon and is therefore unfit for use. Kings river and other rivers north are almost pure, while Kern river holds $1\frac{1}{2}$ grains per gallon. Some artesian wells bored near Tulare lake hold 16 to 19 grains of soda per gallon, and to apply such water to the land would only add more alkali to the soil. Water carrying a few grains per gallon may be used, provided it can be drained off. In India, where irrigation is practiced on a large scale, the canals are located on the level ground to make irrigation easy. Farmers use it freely, and the result is that alkali is coming to the surface in large quantity and is destroying the land. Engineers, unaware of the presence of injurious salts in the soil, did not provide for a correlative system of drainage. The Government of India appointed a commission to investigate the subject, and their verdict is that the only remedy is drainage. The alkali has become so bad in some places that the advisability of keeping water out of the canals is being considered, thus forcing the people to irrigate from wells as in former times. Five years ago the same Government sent an agent to California to learn our methods of treating alkali. After investigation he stated that the same conditions exist here, and expressed the hope that the residents of the Tulare valley, the worst afflicted part of California, would profit by the bitter experience of India.

Irrigation Districts—Phosphates.

We can see the need, in forming an irrigation district, of laying out the canals in such a way that there should be a correlative system of drainage provided for at the same time to carry off the alkali and to prevent the water from rising so high as to drown trees and vines. Without drainage wheat-growing on the irrigated lands of Tulare county will in time have to be abandoned.

In conclusion, a word about phosphates. The phosphates are those elements in the soil that furnish the principal plant food for the wheat and other cereals. The nitrates too are useful. The soil of Tulare county is very rich in phosphates—in fact they are in almost inexhaustible quantity, and farmers would grow wheat for any length of time without renewing the land but for the terrible alkali which keeps the plant food closely locked up.

The War Against Trusts.

The following from the *Lecturer*, issued by National Lecturer Mortimer Whitehead, shows the necessity for prompt action:

Not since the days of 1873 and 1874, when the Grange was having its greatest boom, has the spirit of anti-monopoly so generally prevailed among the farmers in all sections of our country as at the present time.

Usually the Grange is most active and prosperous in the winter season, but this year we are to have an active "summer campaign."

The "cotton-bagging trust," and the "binder-twine trust" have crowded matters too far and the millions of growers of the great staple crops of our country will not submit to pay an extra price on these articles that will add many millions of dollars to the incomes of those in the "trusts."

The National Grange spoke out plainly at its annual meeting in Topeka, Kan., last November:

"Resolved by this National Grange, That we do condemn the said 'trusts' as being unjust, and dangerous to the rights and liberties of the American people and the freedom of American institutions."

"Millions for cotton bagging—not one cent for jute." That, announces the Atlanta Constitution, is to be the farmers' shibboleth in Georgia for the coming campaign.

County, District, and Subordinate Granges all over the country are giving special attention to the "bagging" and "binder-twine trusts;" meetings of "alliances," farmers' protective associations and other organizations are being held and uniting their strength with the Grange. The Secretary of the Missouri State Grange, A. S. Smith, writes:

"I sincerely hope that this latest iniquity of organized capital to take advantage of a great necessity of our wheat-growers may be met with such a repulse by organized agriculture as to render it impossible for the future. The farmer is not the only one who suffers by the combination; the manufacturers of binders must suffer as well, because the sales of hundreds of binders have been spoiled already by it."

J. M. Thompson, Master of the Illinois State Grange, says:

"I am receiving numerous letters, some from other States, all full of encouragement, grit and sand, that would out like emery, and if they are to be relied on, the combine in twine will be terribly out this year, unless they come down soon. Patrons and farmers, stand up to and by the several organizations on this important question. It will be worth more than it costs us."

"Enlist for the war and see this matter clear through. The whole Northwest is standing firm. The East is looking on and waiting to see if the West is true. The East will not break first. All eyes are on the great cereal State of Illinois. We are right, reasonable and just in our demands. Stand fast!"

Here is a sample of the action of thousands

of subordinate Granges. Let thousands more do the same and then stand fast:

WHEREAS, It is extensively reported and believed that there has been a twine trust formed, and binding twine advanced to an unreasonable price; therefore

Resolved, By the members of Hudson Grange, No. 82, Bates county, Mo., 1st, that we will not purchase twine to use in the coming harvest, paying more than a reasonable price; 2d, that we will not purchase twine-binders so long as twine is sold at unreasonable prices.

Every Grange in the United States should hold a "cotton-bagging" or "binder-twine" meeting as soon as possible. Agree to use no twine at the "trust" prices, nor to buy a self-binder this year. Live up to your agreement. Then let each member pledge himself to see at least five farmers who are not Patrons and get them to agree to do the same. Remember if the "trusts" are broken it will be farmers alone who will do it, and if the "trusts" succeed, it will be alone the fault of the farmers. Don't forget our forefathers—how they threw the tea into Boston harbor rather than be unjustly taxed. If they could deprive themselves of tea on principle, that we should be free, let us bind our wheat in the old way, with straw, or use cotton bagging for only one year, and all will be well.

Patrons and farmers should remember the importance of all standing firm. If only one-half are true, the "trusts" will sell one-half the usual quantities of bagging and twine, and at the extra price will make as much or more profit as if they sold the full amount at the old prices. Think of this and stand fast.

Indiana's Legislature takes a hand in war on "trusts," the Senate by a large majority passing a bill characterizing them as conspiracies. This is undoubtedly as good law as that making labor-union boycotters liable for conspiracy.

The movement among the farmers against the binding-twine trust is assuming formidable proportions, and unless the manipulators of the trust get away from their extortionate rates, thousands of farmers will attack their grain without binding it. Let the farmers stick together and next season they will be able to buy twine at what it is really worth.—*Prairie Farmer*.

The only remaining play on the part of farmers is to boycott the trust, and this they seem inclined to do. Minneapolis twine-dealers are in the same fix as the farmers. A young man dressed as a frontier farmer came in here and bought up all the old twine in the hands of the dealers. It was discovered too late that he was the agent of the trust, but the twine had been sold. The local dealers are now kicking, while the twine—500,000 balls of it—is packed away. If the farmers get no twine it is likely to have a bad effect upon the wheat crop, as that cereal cannot be harvested in a good condition without the use of twine.—*Letter from Minneapolis*.

The twine trust without the farmer will be like bricks without straw. The farmers in this State have decided to bind their grain with withes of straw rather than pay the price of a bushel of oats for a pound of twine.—*Chicago Inter-Ocean*.

"Farmers in the past have managed to take care of their grain, and they can do it again, and it is hoped that every farmer in Iowa will join those who have resolved that they will not be bled by this infamous attempt to impose upon the farmers of this State. The farmers can burst up this infamous game if they will only stand true to each other. Let the farming community teach this twine trust a lesson, by refusing to buy or use their twine, and the infamous trust will discover that there is a power above the plotting of those who wish to prey upon the legitimate wants of the people."—*Des Moines, Iowa, Advocate*.

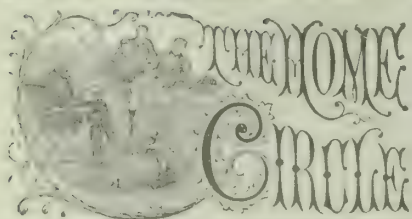
Farmers, beware of a so-called agricultural paper published in New York City in the interests of the bagging and twine "trust." Don't be deceived by their pleading about short supply of raw material, etc., etc. "Stand firm, and stand fast." In the words of Gen. Ethan Allen, "We must all hang together, or we will all hang separately."

The greatest friend the "trusts" have to help them in robbing the farmer is the "trust" that farmers have among themselves, and that is their "trust-to-luck." It will never bring down the price of bagging or binder twine, never bring that true "protection to American industry" for which farmers in the Grange are working to-day more and better than ever before.

BRO. J. T. COBB called at this office Monday, the 20th inst., to say a last good-by before departing for his home in Michigan. He states that it will be impossible for him to visit Oregon, though it would be a pleasure to meet the Patrons of the North. California Patrons have fully appreciated the brother's visit, and we hope he may visit us again at some future time.

THE officers and directors of the Grangers' bank visited Chico and Nord, Butte county, last Saturday, to inspect the real estate belonging to the bank at these localities. Pleasure was combined with business, and an enjoyable and profitable trip was had.

LODI GRANGE is prosperous. But a short time since a class of ten was initiated, and on the 15th inst. another class of the same number was instructed in the degrees. Bro. Huffman feels elated at this condition of affairs.



The Nation's Dead.

Four hundred thousand men,
The brave, the good, the true,
In tangled wood, in mountain glen,
On battle-plain, in prison pen,
Lie dead for me and you.
Four hundred thousand of the brave
Have handed our ransomed soil their grave
For me and you,
Good friends, for me and you.

In many a fevered swamp,
By many a black bayou,
In many a cold and frozen camp
The weary sentinel ceased his tramp
And died for me and you.
From Western plain to ocean tide
Are stretched the graves of those who died
For me and you,
Good friends, for me and you.

On many a bloody plain
Their ready swords they drew,
And poured their life-blood like the rain,
A home, a heritage, to gain—
To gain, for me and you.
Our brothers mustered by our side,
They marched and fought and bravely died
For me and you,
Good friends, for me and you.

Up many a fortress wall
They charged, those boys in blue,
Mid surging smoke and volley's ball;
The bravest were the first to fall—
To fall for me and you.
The noble men, the nation's pride,
Four hundred thousand must have died
For me and you,
Good friends, for me and you.

Within that prison-hold
Their martyr-spirit grew
To stature like the giant of old,
While amid agonies untold
They starved for me and you.
The good, the patient and the tried,
Four hundred thousand men have died
For me and you,
Good friends, for me and you.

A debt we ne'er can pay
To them is justly due,
And to the nation's latest day,
Our children's children still shall say,
"They died for me and you."
Four hundred thousand of the brave
Made this, our ransomed soil, their grave,
For me and you,
Good friends, for me and you.

—Round Table.

Maud's Lesson.

[Written for the Rural Press by MARY BLOSSOM DAVIS.]

"And I suppose, of course, he'll come up here Memorial Day, because he said he'd like to spend his holiday with me. He did last year, and such a lovely time we had," and Maud's face grew serious as she recalled Memorial Day a year ago.

She and Lettie were walking slowly back and forth through a little lane between the barnyard and the shadowy old orchard. They were talking, as girls talk, very low and confidentially, their arms locked about each other's waists and their faces very close together, but lest the "hired man" in the barnyard should overhear their conversation, despite the steady streams of milk that poured noisily into the empty pails. On one side several little bright-eyed calves blew their warm fragrant breath between the fence-bars and called softly for their mothers, while on the other the low gnarled branches of the orchard, all whitely set with fragrant blossoms, nodded and whispered in the twilight breeze, and showed fair petals tipped with the fire of the sunset shining brightly through the thick of the orchard. All about them was the low drowsy hum of retiring bees and home-bound birds, making music with their rapid wings, and the first shrill songs of the crickets in the tall dewy orchard grass. It was just the time for secrets, this soft, dreamy closing of the day, when everything grew more mysterious and more beautiful in the dying light, when the rustling and swaying of the long fresh grass seemed made by the unseen footsteps of enchantresses coming with some olden spell to restore those lost arcadian days which once made earth an Eden.

Maud gave her friend an affectionate little hug as a sense of all this beauty and fragrance stole over her, and she went on still more boldly with her confidences.

"He didn't like the idea to lose me for a whole month, he said. If I must go to the country, why not wait until he had his summer vacation and perhaps his friends might organize a camping tour, he urged. I fear he is a little jealous, Lettie—as if I'd see any one up here in the country to fall in love with!" and Maud shrugged her trim shoulders and gave a sly glance toward the "hired man" just stroking the sleek coat of a fractions cow, as if in scorn of such a rude, unpolished farmer.

She did not notice that the deep blush on Lettie's cheek was not a reflection from the crimson west or that her friend's blue eyes seemed rather startled after this slighting comment of the honest, manly fellow who would have sacrificed a whole day's labor if he could thereby have given this pretty, haughty stranger, who was Lettie's friend, a little pleasure during her visit.

But Maud was busy with her own thoughts and went on quite heedlessly: "He asked me for a full description of you—color of hair, eyes, etc.—to judge if you were the proper kind of a companion for me, I think, the absurd fellow! and wanted to know all about the farm—if you have many visitors or lived at all stylishly, and of course I told him just how plain and quiet everything is here, and assured him, you may be certain, that all eligible young men, fit even to flirt with, were totally wanting in these parts. But you should see Alfred, Lettie! He is as handsome as a dream, with such fascinating manners, too. He has dark eyes—my ideal eyes exactly—and dark hair, cut close to a fine-shaped head, complexion clear and white, and a handsome brown mustache. And then, oh dear, how brilliant he is! He graduates next year from the medical college, a full-fledged doctor, and then, of course, he'll be ready to begin life in earnest," and Maud gave a little sigh, in contemplation of that hopeful future time.

"I am so glad you are happy," Lettie ventured to say at last. "I hope that you will always be, Maud. But you may be sure of it if you have found a faithful heart; that is better than all else, you know."

Lettie paused a moment. She had said rather a bold thing to her friend Maud, who prized so highly all worldly advantages and vanities. And yet Lettie knew that this enthusiastic, proud friend of hers had a warm and generous heart. Her lot had been cast among those who look most to worldly achievements as man's greatest good, and forget, in so doing, the nobler promptings of the heart. And hence Maud had learned to regard with scorn those of lower station than herself, particularly if they failed from lack of refinement or accomplishments.

Her friendship with Lettie was the result of a pleasant companionship at school, whither Lettie had gone for the advantage of a few months' study of higher learning than was offered at her own home. There she and Maud had met, and the latter, moved by her kinder feelings to forget the line that divided them socially, had received the young girl from the farmhouse as cordially as those who lived in the handsome residences that lined the stylish thoroughfares of her own city home. Notwithstanding numerous thoughtless references to "country people," and droll imitations of their mistakes—which Lettie sometimes remembered with a pang in her own fond little heart, had countless times been committed by "dear old father" at home, Maud was very kind to Lettie, giving her numerous suggestions in regard to dress and other things that were very helpful. Maud had found a bright companion in Lettie. Her clothes, though not so elegant as Maud's, had a grace and air of tastefulness not to be borrowed; and her ambition and independent spirit, blended as it was with an affectionate, womanly disposition, won for her the esteem and love of her schoolmates in spite of the numerous little efforts at the outset to subdue her and make her feel that her position was beneath those of more abundant worldly fortune.

After Lettie left school she and Maud had kept their friendship warm by frequent letters and one or two visits from Maud. And they had always kept their secrets for personal meetings, promising then to reveal the very choicest happenings of their lives.

And so now Maud was relating very proudly, and with a most happy heart, what had befallen her since Memorial Day a year ago. She did not quite like Lettie's comment about a faithful heart—at least it seemed rather out of place to her when she had just been describing how magnificent was the lover who had won her.

"It's quite likely," she returned, "that one who is as noble, both physically and mentally, as Alfred, will have a heart that is all right, my dear."

"But then you know, Maud," said Lettie, "the heart is the principal thing, after all. He would better lack everything else than that!"

Maud made no answer, but burst into a little silvery peal of laughter, at length stopping short to look through the fence into the barnyard where James, the "hired man," was chasing a nimble calf back and forth, and round and round, in a vain effort to catch the rebellious little animal.

"Doesn't he make a pretty clown?" observed Maud, still convulsed with laughter. "Those awkward stumbles would grace a ballroom beyond description. There, the calf is caught at last! But it doesn't add anything to the movements of the man to be pulled about in that way. Really, this is too ridiculous for anything to see a grown man making such a picture of himself."

She failed to observe that Lettie did not laugh, nor that she soon afterward said she must go back to the house and get the pans ready for the milk-straining and attend to the preparation of dinner a little.

But Maud was not in a mood to be left alone in the parlor where Lettie requested her to wait until the work was finished, but followed her friend into the cool, sweet dairy, where Lettie was getting the pans ready to receive the warm new milk.

"My dear," she said at last, after asking numerous questions about the process of butter-making, "this is not your proper place. You have no society here, no friends who can really be companions to you, no proper occupation. Your father and mother certainly may like to remain on a farm like this and can find here work suited to their taste, since their aspirations of course must be very different from yours. But you, Lettie, you are so young with all of life before you; it is too bad to waste your opportunities by living here."

"Oh, no, Maud; don't say that," replied Lettie, as she set the pans out on the long table in the dairy. "I have been away and have had opportunities, but I always felt more contented here at home on the farm, where everything is homelike and peaceful. I think perhaps some farmer's daughters make the best farmer's wives. Some one has to marry a farmer," added Lettie, with a twinkling light in her soft blue eyes as she glanced toward her companion.

"The idea!" replied Maud sarcastically. "Your tastes need cultivation very much."

But further discussion of this important matter was interrupted by a quick, firm footstep just outside the dairy and the cheery voice of the hired man calling jocosely, "Here I come, Lettie. Are you ready?"

"All ready," answered Lettie, opening the door to admit James with his foaming pails of rich new milk. Maud noticed how gracefully Lettie stood holding the strainer while the milk poured into the shining pans, how her cheek glowed with a warm, rosy light, and how lovely and sweet seemed the expression of her face. "Lettie really is too pretty to waste her life on a farm," thought Maud as she looked. "But then she certainly looks much prettier here at home doing her work among these rural scenes in those soft, flight, careless dresses, than she ever did at school."

"How many pans are you going to skim in the morning, Lettie?" asked James when the straining was over.

"All those," answered Lettie, pointing to a row of shelves extending along the room.

"All right. I'll be around to empty the pans. What time?"

"Before sunrise."

"Ah! I see," he exclaimed, rather surprised, but giving a quick glance toward Maud. "I've picked all the strawberries for to-morrow. They are in the cellar where they will keep cool and fresh. So you won't have to do that."

"Thank you," said Lettie, blushing brighter than ever, while James hurried away and disappeared in the twilight of the garden.

That evening when the two girls were alone in their room, sitting on the low white-covered bed, Lettie told Maud a wonderful secret.

"I know you will be shocked, Maud," said Lettie. "But the plain, unvarnished truth is this—I am going to marry James, our hired man, whom you laughed at when he struggled with the calves in the barnyard, and who was in the dairy this evening."

"Lettie!" cried Maud in dismay.

"It is true," answered Lettie bravely. "He is a noble fellow at heart, if he is a farmer. Papa thinks everything of James, and couldn't possibly do without him. But perhaps he may have to some time," she added, thinking of the future. "He is one of a large family, so his work is not needed at home, but he is very industrious and ambitious if he does hire out."

We will not record the conversation that followed, in which Maud tried to show Lettie her grave mistake in being content with a rural life, and in giving up the advantages the world could offer to one so pretty and bright as she. But it was in vain, though Lettie's usually peaceful slumber was rather disturbed that night in consequence of Maud's position. Not that Lettie for a moment listened to Maud's persuasions. But with shame she remembered how she had dreaded to confide her secret to Maud, after what had taken place when they walked in the twilight by the barnyard where James milked. She had never once dreamed that Maud would view James in the light which she did. There had even been a flutter of happy expectation in her heart before Maud arrived, when she thought of the pleasant confidence she had to give. And yet it was not strange, either, that Maud should ill appreciate the manly qualities that James possessed. To her, he most likely seemed as rough and hardy as his exterior life. But what had she done? She could hardly forgive herself for forgetting the unfaltering respect due to such a true and generous character as James, even in the face of Maud's unconcealed scorn. She knew how manly he was and Maud did not.

But now that she had bravely confessed, and stood up heroically in defense of him, against Maud's disparagements, she felt that some little reparation had been done in extenuation of her cowardice, and, so comforted, she fell asleep.

The next morning Maud awoke early, but Lettie was up before her. The air was so invigorating, the sky so blue and tender and dewy, and the birds so rapturously sweet-voiced and happy, that she could not take her accustomed sleep, so she hurriedly dressed and wandered out into the garden just as the sun was breaking over the crimson-draped horizon.

Then she remembered Lettie's skimming, so she walked around through the cool, fresh perfumes from the opening flowers toward the dairy-room.

A blooming, dewy mass of honeysuckle covered the cool, quiet little place, while a huge

tank placed upon the roof, filled constantly by the ever-turning windmill, sent rainbow sprays and dripping streams down upon a wild, sweet tangle of flowers and grasses all around it. The door of the dairy-room was open, and a suggestive clatter from within proved to Maud that the skimming had commenced.

Then as she drew nearer what a picture rose before her eyes! There in the shadowy coolness of the dairy, lovely and graceful in a thin light dress, her sunny hair falling into playful little curls on her forehead, her cheeks glowing and her fair plump arms bare to the elbow, stood Lettie skimming milk. Beside her, strong and manly, and yes, almost handsome despite his tan and sunburn, lingered James, watching her with earnest eyes and anxiously waiting for the finished pan.

As she came toward them Maud could hear their conversation, so merry and pleasant and free, not at all as it had been the evening before, when, as she now knew, her presence had cast a restraint upon them.

"Here, you may have that," said Lettie, playfully, looking up with a smile, as she held out a thick lump of cream on the end of a long wooden spoon.

"How am I to get it?" asked James, making fruitless efforts to obtain possession of the cream. "Why didn't you say I had to take the skimmer in my mouth? I might succeed then."

Maud turned back, loth to disturb the pleasant scene, and with the thought also that after all this might be the best place for a girl like Lettie to live.

During the days that followed, Maud's new idea was confirmed. Lettie seemed so indispensable at the farmhouse. There was nothing that she did not do as deftly as it could be done. She was a Juno—fair, bright and womanly—one who lost none of her grace and beauty in the midst of her household arts. Day-break always found her busily at work, rosy-cheeked and sunny-tempered, and by the time breakfast was ready there were dozens of things finished and over for the day, not to mention the light, delicious biscuits that appeared as if by magic on the table.

And besides, James improved wonderfully on acquaintance. Maud was heartily ashamed of what she had said about him before her visit was over, although she considered him altogether too much of a rustic to suit her own "refined tastes." But then he was untriflingly kind to her. He was always planning and sacrificing his own comfort to obtain for her and Lettie a little enjoyment. He called it a great pleasure after a hard day's work to drive them into town for some amusement, though she knew that just at that particular time his work was very tiring, and he would have much preferred to sit at home and hear them sing or play for him. He chased the horses by the hour that he might give the girls a ride, and brought home every evening some strange or rare wild flower for Maud to see.

Maud talked a great deal of Alfred, though she very considerably refrained from comparing him to James, lest Lettie might feel hurt, and when, at last, Memorial Day arrived, she was in a perfect rapture of excitement anticipating his coming. Now Lettie could see how fine and grand was the man of her choice.

Lettie was very busy in the morning, for that afternoon James expected to drive them all to a picnic in the neighborhood, so she could not see how anxiously Maud awaited the expected arrival.

At last James, who had driven into town to meet the expected stranger, came back, but Alfred was not with him. Maud hurried out for fear some mistake had been made, when James handed her a letter which he remarked would perhaps explain the failure. Ah! well indeed Maud knew the familiar writing, so she went into the house and opened the letter.

"Friend Maud," it began, very unlike the usual address, "I write you to explain my inability to visit your friends in the country. The last two days have been very busy and exciting ones to me. I have received news that my uncle has recently died, leaving me his heir, and I am called East immediately to settle up the affairs of the estate, which is very large and valuable. I start to-day, so are you receive this I shall be gone. But accept my farewell, given with all kindly feeling. You have been a very charming friend to me, and it is with regret that our foolish little boy and girl flirtation is ended, for of course my departure will preclude any idea of the continuance of any further hopes concerning each other. I may write to you again in a week or two, for there may be some little affairs yet that need attention which I am too busy to think of now. Believe me ever your friend, Alfred."

The letter was crushed in Maud's dainty hand as she rushed to Lettie in the kitchen. "O my dearest," she cried, throwing her arms about Lettie, despairingly, not ashamed to bring her grief to that kind little motherly heart, "help me to understand this. What does it mean?" and the tears fell fast down on Maud's delicate cheeks.

Lettie took the letter and read it calmly. "It means, dear Maud, she said, 'that he in whom you trusted, he whom you thought possessed all that is good and manly, was not worthy of such regard. Never think of him again; put from your life entirely such a dangerous influence and all disturbing thoughts. The future will bring you a reward, my dear.'

She led the sorrowing girl into their own peaceful little room, and there in the dim,

cool quiet, Lettie talked long and earnestly with Maud.

"This is Memorial Day," she said. "It commemorates the manly valor of thousands of brave Americans, who left family and home and gave their lives for the sake of principle. Does not this prove that there are many noble hearts worthy of our love and esteem? We have not any to spare for those who are faithless and cruel."

When at last Maud and Lettie emerged from that grave morning conference, Maud's calm face drew all suspicion from her tear-swollen eyes.

And Memorial Day was not a wretched one, after all, though passed very differently from what they had expected. They did not go to the picnic, but James drove the girls for many miles out through the lovely quiet woods where they spent the long afternoon very pleasantly under the leafy shadows, amid the flowers and ferns and rocks. Maud was very thoughtful, but her abstraction was not without good results. She possessed a firm will and a proud spirit. Her dream had faded, but she was wiser, stronger, more generous, more womanly.

During the few remaining days of her visit, she and Lettie had many serious talks. Maud penitently acknowledged her errors, and Lettie promised to help her subdue her old haughty spirit, though she privately thought that Maud would not need any assistance, judging from her determined assertions.

When Maud departed for home, and Lettie was bidding her farewell at the depot, there was a little whispered conversation which James did not hear.

"Now Lettie dear," said Maud, with something of her old archness and merry humor, "you know I am going home with the prospect of being an old maid. Don't forget to hunt for me that fine young farmer, just like James, and then I shall escape my awful fate."

"All right, Maud," said Lettie, more seriously. "But you must remember farmers do not have a monopoly of all the good hearts. They are scattered around through the world, but be sure that you find one. If you take care of that, all else will be well."

"You may depend upon it that I shall, my dearest friend. You have taught me the best lesson of my life," said Maud as the engine thundered in and James came forward with her valise to see her safely on the train.

May.

[Written for the Rural Press by M. E. T.]

May! most beautiful month of May!
Bright with sunshine or dipping in showers;
With flying feet you pass away,
But your gifts outnumber by far your hours.

In the gliding years that are passed and gone,
You've scattered your treasures with lavish hands;
To-day we've reckoned them one by one,
And our baby among them sweetly stands.

Wealth of roses and golden hours,
Tuneful birds and prophetic bloom,
You cannot excel this gem of ours,
O month of beauty and sweet perfume!

Watonsville, Cal.

Chaff.

The hot biscuit is the grub that makes the butter fly.

A FINANCIER.—"Has Muller borrowed anything from you?" "He tried; he said he wanted \$200 for a year, and that he could get it from Schulze, but Schulze wanted six per cent, while he was not willing to pay more than four per cent. So I gave him \$4 and said: 'Here's the missing two per cent, go and borrow the money from Schulze.'"

A WAGGISH cabinet-maker, who repaired chairs as an accommodation, advertised thus: "All kinds of chairs, and bills contracted therefor, receipted with pleasure." His wit and wisdom turned him in a deal of cash trade. —Nantucket Inquirer.

A STORY is told concerning a certain play, the plot of which was very obscure. One night of its run—it had a run of one week—a man with a puzzled look in his face walked out of the house, fairly driven to drink by attempting to unravel the story. Leaving the theater, he met the manager. He stopped him. "Say," he asked, "in the name of pity will you tell me what it is all about?" The manager smiled sadly and then in a confidential whisper said: "I'll tell you, but don't quote me. The truth is this infernal Interstate Commerce law comes pretty hard on us, and we had to leave the plot behind at the last town we played."—N. Y. World.

YOUNG LADY (to editor): "I see, Mr. Shears, that you have published my article." Mr. Shears: "Yes, we used it; but we had to cut it down a good deal. We had the boy who runs the adjective-killer at work on it pretty nearly all day."—Harper's Bazar.

At a recent Oxford local examination in Northampton, the following question was asked and answer given: "Who wrote the 'Complete Angler'?" Izaak Walton; and therefore he was called the Judicious Hooker." This is fact, not fiction.—Pall Mall Gazette.

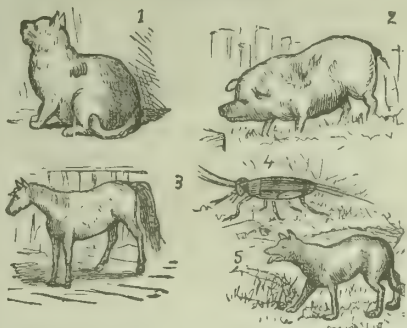
"BIBULOUS!" said a Kentuckian, being questioned about the habits of people in his State. "Bibulous! Why I don't reckon you could find a dozen Bibles in the whole State." —Washington Post.

YOUNG FOLKS' COLUMN.

Tangles.

Enigmatic Snarls, Hard and Easy, for Young People of all Ages to Untangle.

25.—ACROSTIC.



The initials of what these animals can do, taken in their order, will make the name of a fish.

26.—TRANSMUTATION.

In these latter days of science and art,
The magician's skill takes no leading part,
Still many a juggler we yet may find
Can puzzle the brain and startle the mind.
In a trial of skill, not long ago,
Between one who came from a land of snow,
And a wizard brown from Arabia's sand,
The latter held forth in his open hand
A bulbous plant which gay flowerets bore,
Simply a lovely plant and nothing more.
But a second look, to our great surprise,
Revealed on its front, with glittering eyes,
A serpent's head, whose angry, rising crest
And darting tongue struck terror to the breast.
With nimble fingers the magician tore
Off the serpent's head and threw it on the floor,
When of reptile form we could find no trace,
But a radiant rainbow filled all the place.
Then the Northern wizard essayed his art
By pulling his head and body apart,
When an ancient Persian appeared to view,
Of whose tragic end the Bible tells true;
But a moment he stayed, then of head bereft,
Quickly disappeared; still a man was left,
Whose head, too, came off, and fell to the ground;
Yet underneath another man was found
Who still may live. Here the trial ended,
The prize was won for which they contended.

M. C. WOODFORD.

27.—A BUSINESS TRANSACTION.

A drover bought a lot of cattle for \$175, paid \$20 down and agreed to take them away by a certain time or to pay \$1 per day for their keeping after that date. He came on the appointed day, but said he could not conveniently take the cattle then, and if the farmer thought he could sell them to some one else for more than \$175 he might do so and keep half the profit. The farmer agreed, and at the end of twenty days succeeded in selling them for \$210. How much should he pay the drover?

J. W. HARKNESS.

28.—A NUMERICAL ENIGMA.

In 1 to 6 the tale appears
Of saints who lived in by-gone years;
9, 7, 8, 6, the place will show
Where cattle come and milkmaids go;
While 1 to 9 describes such lore
As romance wrought in days of yore.

NELSONIAN.

29.—CHARADE.

Mr. Theodore Thaxter one day had a notion
To feel of a swift-running last when in motion,
Yet he soon came away of his best first bereft;
His left first was all right, but his right first he left.

He now with his left first can labor quite fast,
And I last his last night last a board with a last.
'Twas a circular last that his first took away,
But a whole was the last in his left first to-day.

E. W. HARRIS.

30.—QUIZZES.

1. What is short when it is long?
2. What gives weakness when 'tis strong?
3. What painful loss can make us glad?
4. What risks more highs than any lad?
5. What is it that is always tired?
6. What thing to live must lose its head?
7. And what from too much breath lies dead?
8. What while running always lies?
9. What is a disregarded vice?
10. What book still lives when robbed of leaves?
11. And can you name the unseen thieves?

CLAMOR.

ANSWERS.

19.—A bribe in the hand betrays mischief at heart.

20.—Yard. (1, play-yard; 2, yard-arm; 3, navy-yard; 4, dock-yard; 5, ship-yard; 6, brick-yard; 7, steel-yard; 8, coal-yard; 9, lumber-yard; 10, prison-yard; 11, barn-yard; 12, front-yard; 13, yard of 36 inches; 14, grave-yard; 15, golden yard, the three stars in the belt of Orion.)

21.—Six persons; an old lady, one of her daughters with two daughters, one of her daughters with no children, and the daughter of her absent daughter.

22.—Preach, reach, each.

23.—BARBARA

AMERCEA

RELICTS

BRISURE

ACCUSER

RETRACT

ASSERTS

24.—Temperance.

The Wise Hen.

[Written for the Rural Press by MINNIE W. EDWARDS.]

"Crau-k, crau-k, crau-k," said a little brown hen as she walked away from the flower-bed, where she had employed herself in scratching up some newly-planted verbenas. "I must hunt another place to lay in, and it really is becoming quite a difficult matter, for I've searched this garden over, but that miserable Long-legs generally finds my nest wherever I may hide it, and lay out of this place I never will, though they do 'shoo' me out every day!"

"At any rate, I manage to lead them a dance, and once I did surprise them by bringing out a brood of the finest chicks that ever broke shell; but that's past and gone, so it's no longer any use brooding over it. I've laid in the potato-bag, in the clothes-pin's box, in an old hat I found in the storehouse, on the top shelf, and the egg rolled off and broke before those big stupid ones could find it, and in the branches of that big oak, but somehow they always find me out, and I declare it's too provoking, and I don't know what I shall do!" and the little hen wound up with a meditative "crau-k, crau-k."

Sir Game at this moment happened along, his brilliant plumage shining, his cold sharp eyes glistening and his whole bearing as proud as became one of his royal race, and perceiving the little hen was in some trouble, very condescendingly offered his assistance.

"Ah! pray allow me to assist you, Madam Brown. I am quite confident of my ability to do so," and upon the little hen's explanation of her troubles, exclaimed: "Can't find a nest! how absurd! Really it is quite surprising how helpless you hens can be! What would become of you were it not for our superior wisdom in guiding you? Why, I can find you a nest in no time," and forthwith he strode majestically off, meekly followed by the partially subdued hen.

After promenading around awhile, he called her to show what he considered a fine spot, "so retired."

"Yes, I thought so, too," said Henny Penny, "but Long Legs discovered that nest after I'd laid in it for two days."

"Oh, you've been there before, have you? Why didn't you say so?" growled Sir Game, while the hen mumbled something about not knowing, and when she saw him guiding her to another old nest, hastened to say she'd been there, too, to which remark his majesty deigned no reply, but walked quickly by, as though he'd no idea of going there; and before she had time to check him, up he flew in the veritable tree in whose wide branches she'd laid eggs till they rolled over the edge.

"Please, sir, I've been there, too," meekly said she.

"Well, madam, can you tell me where you have not been? You deserve to be boiled! If you wish me to find you a nest, why are you always interfering? Just like an old hen!"

"Well, really, sir, there is no pleasing you, anyhow," replied the little brown hen, who was becoming very tired, consequently cross, and didn't like to be called old, either. "And you need trouble yourself no longer; I am fully able to take care of myself."

"Madam, when I undertake to do a thing I never rest till I accomplish it," replied Sir Knight, and his dignity sustained him as he flew from his perch.

"Ah! here we have it," said he, a few moments later. "Behind this board is just the spot. I'll go in and arrange matters for you." But he came out again, rather crestfallen, as the board only hid from view a lot of old iron scraps, and he had to acknowledge it thoroughly unsuitable, while Madam B. suppressed her feminine nature, and didn't say, "I told you so."

"Now," said Sir Game, "here is the nest for you."

"Do you think I'm a bantam, sir," indignantly from Mrs. Brown, "that I can squeeze myself into that little box? Well, I never! I'm quite insulted!"

"Well, really," began the game; but soon he spied the ash-tin, and, springing into that, commenced scratching energetically in his endeavor to fix a nest, but the dust flew into the little hen's eyes, (and you know no well-regulated hen likes that) while she became so vexed that Sir Game quickly came down and took her scolding quite meekly, for a wonder.

Next he led her to a barrel, which, upon investigation, proved to be full of sticks and stones, then into the corn-crib where she sharply informed him she'd laid before, and after a few more utterly unsuitable and ridiculous places, his whole appearance underwent a change, and a more crestfallen bird you could not find, though there was still an assumption of grandeur as he said in a severe tone to Madam Hen, "It really is most peculiar how little you hens appreciate the trouble I take in your behalf, and after all my labor and subservience to your feminine whims, your ingratitude is unbearable," and with a great effort, bristling up his feathers, he stalked off, the wise little hen telling him, at the top of her lungs, that of all conceited creatures he was certainly the worst, but that was all one could expect, and after all his boasting there was nothing accomplished, and "dear me," continued she, "here it is almost feeding-time, and my day's work unfinished; it's always the way

when these masculines step in with their 'superior wisdom.' Why, here is just the place, this lovely little box, under this vine. Strange, I never noticed it before, and such a sweet doorway, too; surely Long Legs won't discover me this time," and in she went contented; and after awhile, out she came with a "cackle, cackle, cackle," and in fact she cackled so much that you might have thought she'd laid forty eggs, with a separate rejoicing for each one, and no sooner had she turned the corner, well satisfied with herself and her sagacity, than Mr. Long Legs appeared with his basket, and going to the new box-nest he'd placed there that day, took out the wise little hen's egg, and he was contented, too, while Sir Game crowed louder than ever, well satisfied as usual with himself.

DOMESTIC ECONOMY

Rhoda Toast.

EDITORS PRESS:—I have introduced into the family of my friends where I am visiting "Rhoda Toast," and it has become so much in favor on the breakfast-table that Dr. D. has asked me to send it to you for "Domestic Economy."—MRS. C. F. M., Pomona.

Rhoda Toast.—Slice any good bread same as for table. Have your griddle hot; butter as for pancakes; dip each slice of the bread in cold water; lay on griddle; brown nicely each side; spread with butter; serve hot.

WHITE CAKE.—One cup of sugar, three eggs, half-cup butter, one cup milk, two teaspoonfuls of baking powder, flour to form a batter.

MUFFINS.—Take bread sponge and thin out with warm water; use three eggs to a quart of batter; set to rise, put into muffin rings and bake.

FRIED PUMPKIN.—Slice the pumpkin and boil until tender; remove from the fire and mash with a fork; add two eggs, and fry in butter until brown.

HEAD CHEESE.—Boil the pig's head until the bones drop off; chop fine, add six rolled crackers, salt, pepper and spices to taste; pack in a stone jar and serve cold.

CREAM CAKE.—Four cups of sifted flour, two teaspoonfuls of baking powder, three cups of white sugar, one cup of butter, one cup of sweet cream and five eggs; flavor with lemon.

CRANBERRY SAUCE.—Allow a quart of water to a quart of cranberries. Place on the stove and stew until the berries will mash with a spoon. Stir until all are crushed; add sugar, a pound for a quart, and more if it is desired to have it jelly.

TAPIoca JELLY.—One-half pint of tapioca, one quart of water, the juice and grated rind of a lemon. Soak the tapioca over night in water; sweeten and boil it for an hour in a farina kettle. When nearly done, stir in the lemon and pour it into molds. Serve with cream sweetened.

OMELETTE SQUFFLE.—Five eggs, a quarter of a pound of butter, four tablespoonfuls of sugar, one of flour. Mix well, add last the stiff froth of the whites of the eggs. Melt a piece of butter in a saucepan, pour in the mixture, and stir with a broad knife until done. Sprinkle with lemon juice and sugar, or serve with preserves.

APPLE CUSTARD.—Another way to prepare apples for dessert is to core, pare and grate them. For a quart of grated apples stir in a quarter of a pound of melted butter and half a pound of sugar. Beat the yolks and whites of eight eggs separately; stir in the whites the last thing, and bake like custard in a deep dish lined with puff paste.

PARKER-HOUSE ROLLS.—One teaspoonful salt, one quart sifted flour, half pint new milk, two tablespoonfuls butter, two tablespoonfuls white sugar, three tablespoonfuls good yeast. Let the milk come to a boil; when cool, stir in the flour with a spoon, it will just take up the milk; put in sugar, yeast and butter and set to rise. When light, make into a loaf with as little flour as possible; let rise about an hour; then roll out as thick as for cookies and cut with a cookie cutter; put a little butter in the middle and fold together; put five or six across the tin.

SPICED BEEF.—Take from four to six pounds of beef, wash and cut off any part of the skin which is not sweet and clean, pick off all fine fragments of bone, and cut meat into several pieces; cover with boiling water, skim carefully as it boils, and then simmer until the meat falls to pieces and the liquor is reduced to half a pint. Remove the meat, season the liquor highly with salt, pepper, sage and thyme; add it to the meat, and mix with a fork till the meat is all broken. Pack in a brick-loaf pan, and when cold cut in slices.

CHOCOLATE PIE.—One cup of milk, three eggs, two-thirds of a cup of granulated sugar; two heaping tablespoonfuls of grated chocolate, a pinch of salt, and vanilla extract enough to flavor. Mix the chocolate in two tablespoonfuls of milk. Stir in the cup of milk, and scald. Beat one whole egg and the yolks of two with the cup of sugar. Pour the hot milk on to the egg and sugar, stirring while pouring it on. Bake in a deep pie-plate, with one crust. When done, beat the whites of the two eggs used in the pie to a stiff froth. Add two tablespoonfuls of pulverized sugar; spread over the top of the pie and return to oven until slightly browned.



A. T. DEWEY.

W. E. EWER.

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(NEW THIS ISSUE.)

Summer Resort—Pacific Grove, nr. Monterey, Cal.
Hardware—Hawley Bros. Hardware Co.
Agricultural Implements—P. E. Mast.
Firearms—Finn Ins. Co.
Livestock Sale—Robt. Ashburner, Baden, Cal.
Patent For Sale—J. J. Jones, Los Angeles, Cal.
Live Stock—E. K. Alsip, Sanramento, Cal.
Searchers of Records—Knapp & Anderson, Visalia, Cal.
Anderson's Springs, Middletown, Lake Co.
Hay Presses—Price Hay Press Co., San Leandro, Cal.

See Advertising Columns.

The Week.

Settled weather seems to have been ushered in by the earthquake of Sunday morning. The shake is reported by the experts to have been the most notable since the memorable one of 1868, and their measuring machines indicate that the displacement was such that if the movement had not been so gradual there would have been in all probability much injury done. It is fortunate, then, that in earthquakes, as in other affairs, California is not so fast as formerly.

Growing crops of all kinds have progressed favorably, and a good output on the whole from field, orchard and vineyard is promised. Business is dropping into its midsummer quiet. The school commencement has set in, and for a month to come there will be activity in the tailoring and dressmaking industries, the air will be full of eloquence and music and another tale of graduates will be out in the world.

On Thursday of next week the ceremonies of Decoration Day will be observed in town and country. In San Francisco there will be a full parade of National and State troops and Veter-

ans' organizations, and fitting exercises in Metropolitan hall and at the cemeteries. The occasion should commend itself to all patriotic hearts.

The Scale-Eaters.

In our last issue Mrs. Carr gave a very interesting account of her conversion to belief in the imported Australian scale-eaters because of the deeds of the new ladybird, *Vedolia cardinalis*, to which allusion was made in our columns some weeks ago. Reports from Los Angeles county, where the chief part of the ladybirds are now domiciled, are abundant, and, as might be expected, some controversy is being engendered as to whether insecticides should be laid aside and trust be placed in the natural foe of the icerya. It is a proper subject for debate, in order that as much light as possible may be brought to bear upon the issue. But after all the choice must be made by the individual according to the conditions prevailing in his case. In view of the discussions concerning the efficacy of the scale-destroyer, the rapidity of its multiplication, etc., we are very glad to have from Mr. D. W. Coquillett a carefully prepared statement of the introduction and progress of the insect up to this time, as follows:

The first consignment of these ladybugs was received November 30th and numbered 28 living specimens of larvae, pupae and beetles; the second consignment reached me December 29th and contained 45 specimens in their different stages, and the third consignment of 56 specimens was received January 24th, making in all 129 ladybugs, which were placed under one of the tents at Mr. Wolfskill's. From the very start these ladybugs made themselves perfectly at home, and the havoc they made among the iceryas was surprising. By the latter part of April they had increased to such an extent that it was deemed advisable to send out colonies to different localities in the State, and up to date over 4000 specimens have been sent to various parties who have applied for them, while there are fully 2000 specimens still remaining on the trees at Mr. Wolfskill's. These 6000 individuals are the progeny of the original 129 insects referred to above, which will give some idea of the rapidity with which these insects breed. Several of the orange trees at Mr. Wolfskill's have been almost entirely cleared of the iceryas by these ladybugs, and on the other trees their numbers are becoming rapidly lessened through the persistent attacks of their merciless foe.

Besides the 129 ladybugs referred to above, I also received two later consignments. One of these arrived February 21st, and consisted of 35 specimens, which were colonized on an orange tree belonging to Colonel J. R. Dobbins, in the San Gabriel valley. A much larger consignment, containing about 350 ladybugs in their different stages, was received March 20th; some of these were also colonized at Colonel Dobbins, while the remainder were placed on orange trees belonging to A. Scott Chapman, in the San Gabriel valley. Altogether, about 514 of these ladybugs have been received from Australia.

We have received several applications for these insects, which we have forwarded to Mr. Koebel of Alameda. It seems that at present the demand for these insects exceeds the supply, but if they continue to multiply as above, there will soon be enough to reach all icerya colonies in the State.

It seems to be a good year for predaceous insects. Our Calaveras correspondent, Mr. Schaeffle, recently sent us a quince twig infested with an aspidiotus, and on examination we found that a large number of the scales had been destroyed, not by internal parasite but by the attack of an outside feeder. The parasitized scale has a neat round hole through which the parasite emerges when its larval course is run. The invaded scale has its dome irregularly torn open or eaten into. Any one can discern this difference in the case of the hard-shell scales by the use of the microscope.

The old favorite, the red-spotted black ladybird (*Chilocorus bivulvatus*) is continuing his work commendably. On a mountain-ash tree on the University grounds, which has been for several years inhabited by a colony of *aspidiotus nerii*, the *chilocorus* began about three years ago and has continued until now the scale is scarce and the *chilocorus* larvae are collected in bunches. This insect is probably a native, and there are many more native scale-destroyers which are now getting in their work.

The outlook is favorable for the balance of nature being restored in our favor, and yet we are not prepared to advise any one to fold his hands and wait. If any one should so conclude after looking the field all over, he must do it on his own responsibility, and have all the glory or all the blame for himself.

Fruit for the East.

The summer campaign in California fruit for Eastern consumers is opening briskly. The California Fruit Union has gone into summer quarters in Sacramento, and a rival organization to be known as the Golden Gate Fruit Association has also equipped itself for active work. The prospect is that there will be much more fruit sent East this summer than ever before, and so long as it is well distributed it will prove a grand thing for California growers' interests.

The Golden Gate Fruit Association appears to be created on the basis of a combination of interests of the Earl Fruit Company with those growers and shippers who were displeased with the management of the Fruit Union last year and manifested that displeasure at the annual meeting in January last. A dispatch from Sacramento, where the meeting for organization was held on Monday of this week, gives the following sketch of the methods to be pursued by the new organization:

The object of the association is to market the fruit of its members in the East at the lowest possible cost. Shippers may name the point to which fruit shall be shipped, and also the consignee. The only restriction is that when the fruit is sold by auction it shall be by auctioneers named by the association. Any grower or shipper may become a member by subscribing to the agreement and paying \$5. The association has no capital stock, and the small shipper has the same advantage as the largest. The commission charges will amount to but five per cent, instead of ten, as in the California Fruit Union. Transactions will be had direct with auctioneers, and no agents will be employed at Chicago, New York or Boston, contrary to the practice of the Fruit Union. When more than the ten carloads required to make up a special train are offered in one day, the surplus will be dispatched by passenger train, and the cost of freight by each train averaged, so that the expense will be the same per carload to all shippers.

This seems a free-for-all sort of a plan, and should work off a good deal of fruit. There need not necessarily be any conflict between the Union and the Golden Gate Association, providing the fruit is squarely auctioned on both sides. There may be a disposition to rule or ruin in Chicago, but we do not suppose California shippers will care to have much of that kind of fun with their property, and if an agent or auctioneer should attempt to crush his rival's business, let later shipments go to the opposition. The arrangements of the new association open a way for escape from any game, should any be attempted. In this case competition may be the safety in the trade, providing there is a disposition to make things too lively to suit the producers or purchasing shippers.

At Chicago there will naturally be an active rivalry and a strife for the trade. Porter Brothers, who have the local agency, will sell through their own auction-house. Messrs. Lewis & Adams and the Golden Gate Association will sell through R. M. Montgomery & Co., whose disaffection with Porter Brothers was quite freely commented upon last January. On the whole, much life may be looked for in this year's trade.

The Bench Show

At the Mechanics' Pavilion is reported, as we go to press Wednesday afternoon, to have opened very auspiciously. The collection of dogs is pronounced the finest ever seen in California, ranging from Great Danes and St. Bernards down to toy terriers. The hounds and "bird-dogs" are especially mentioned, and the display of poultry and pigeons is also very creditable. We hope to see them for ourselves before these words reach Rural readers.

SMART FOR ITS SIZE.—The town of Quitman, Brooks county, Ga., has an estimated population of 1650; yet it is reported that there were shipped thence last year 1000 carloads of watermelons, 50,000 crates of pears, and many thousand crates of strawberries, peaches, and early vegetables.

AUSTRALIAN TREES FOR THE PARK.—The State Board of Forestry has lately presented the Commissioners of the Golden Gate Park with some thousands of rare and valuable Australian trees. Many of the species are remarkable for beauty as well as utility.

THE SALINAS CREAMERY INCORPORATES.—Articles of incorporation of the Salinas City Creamery and Cold Storage Co. were filed at Sacramento, May 21st.

Our Rivers.

(Continued from page 497.)

which are now radiant with the beauty of myriad wild flowers and redolent of their perfume. The landscape is as pretty and varied as the most *blase* tourist could insist upon.

The lower engraving shows another phase of our river scenery, where the stream has rocks and not meadow loams to contend with. Here, too, there is certainly no prophecy of the dull stream of the lowlands of which these waters will ere long form a part, but a restless, swift current pouring down from mountain sources, seeking quick exit from its chilly dawn to its midday murmurs in the vales below.

We trust these views will not only be of interest to our friends who will go northward through such scenes as these, but will remind many others that the season is at hand when tasks should be laid aside and the summer vacation amid unwonted scenes should be enjoyed. Follow almost any stream toward its source, and you will find picturesque beauty to admire. If time and money allow, take a large stream and follow it into the heart of the Sierra; if not, then hitch up your team and follow the shorter runs to the canyons of the Coast Range; if not even this, pack a lunch-basket and start on foot along the creek that crosses your farm into the little hills of its birth. In all of these you will find scenes similar in kind but different in degree; in all you will gain diversion and rest and recreation, of which this generation has far too little.

The State Flower Show.

The exhibition by the State Floral Society in Irving hall, San Francisco, last week, was a notable success. The arrangements for the display were elaborate and complete. The decorative features were well looked to, the music was excellent, and the impression made upon visitors was as good as could be desired.

As was promised in the announcements, the flowers were shown singly, and so far as possible, were plainly labeled. The cut-flower stands were made to slope gently toward the aisles, the bottles were buried out of sight, and one saw only the bud or bloom resting upon a bed of moss, and its characteristics could thus be studied to advantage.

The display was very creditable to exhibitors. Not only were very large collections shown, but the specimens were for the most part well grown, and in some cases notably so. It was gratifying to see what careful study was made of the plants and flowers. The display was a study to most who attended, and the free use of pencils and notebooks showed that people were gaining information which they appreciated. The exhibitors were obliging and attentive, and added much to the attainment of the purposes of the exhibition by their answers to inquiries and comments upon the material exhibited.

On the whole, the affair was excellent, and will have a good effect both upon the public and the society. The patronage was hardly what it should have been, but the record made in the initial effort will, no doubt, win wider patronage for the next display. We are unable at this time to specify the exhibits, or to name the premiums awarded. Such a statement we will endeavor to prepare for next week's Rural.

QUARANTINE GUARDIANS.—The president of the State Board of Horticulture, Ellwood Cooper, has appointed the following quarantine guardians: S. N. Stanahan, Geo. Beals and John Rodda, for Nevada county; E. G. Carr, S. P. Hall, W. C. Porcino, W. W. Phelps, for the district of Riverside; C. H. Lathrop, for the district of Livonia, San Bernardino county; Joseph Hall, Wilbur S. Allen, W. H. Robinson, for San Joaquin county.

CALIFORNIA CHERRIES AT CHICAGO.—Richard M. Montgomery & Co. sold at auction in Chicago, May 13th, for account of Delafield, McGovern & Co. and the Earl Fruit Co., 53 boxes Black Tartarian cherries for 23½ and 32½ cents per pound. The cherries were in fair condition. This was the first auction sale for the season.

The Los Angeles City Council has this week passed an ordinance for the immediate building of an outfall sewer to the ocean at a cost of over \$1,000,000.

A Thriving Mountain Town.

Many readers of the Rural will be pleased to see the photo-facsimile which we give herewith of the town of Sonora—from a recent photograph. Sonora is one of the old towns of California and her former residents are in all parts of the State pursuing various vocations. All these and their children and children's children will be glad to look at the picture and hear again the stories of the early days. But though Sonora has sent out hosts of people to aid in the development of other parts of the State, the town has continued on a prosperous course and keeps herself abreast of the general progress of the State. The visitor at the present day will find fine residences, large stores, hotels, schools and churches, and a wide-awake and progressive population ever ready to welcome him

Mt. Dana, 13,227 feet high, with Castle peak, a little further north, and nearly as high. A remarkable feature in the topography and geology of this county is the basaltic mesa, known as Table mountain, which, running near and parallel with its northwestern boundary, extends for a distance of nearly 30 miles. This formation consists of a lava flow, which, having filled the channel of an ancient river, stands now, through the degradation of the adjacent country, an isolated mass, its top nearly level and its sides nearly perpendicular, the former more than 2000 feet above the bed of the Stanislaus which breaks through it.

Flowing through this county in a westerly direction is the Tuolumne river with its three forks, also the three forks of the Stanislaus, all large streams, the main Stanislaus and its north fork forming in part the boundary between this

WOOL-COTTON.—A vegetable product that can scarcely be distinguished from wool, it is said, has been found in Arkansas. A gentleman named B. F. O'Kelly, who arrived in this city from Jefferson county, Ark., has recently presented to the Board of Trade of Fresno a sample of what he terms "wool-cotton," grown in the State and county named above. The Fresno *Expositor* recently said that the seed was obtained from the Patent Office at Washington, and during the past two years planters have been experimenting very successfully with it. It has the appearance of wool, and the fiber would be taken for wool by those not acquainted with its origin. When woven, the texture bears every resemblance of wool cloth and wears a gloss that even exceeds woolen goods. Mr. O'Kelly is largely interested as a planter in Arkansas, and although his wool-

Commission steamer Albatross. Twelve well-known San Diegans have been recruited for the voyage, which will take place in a steam-schooner. Several Gloucester fishermen will accompany the party, which will be further equipped with one of the Albatross charts. Black and blue cod are reported on the banks in vast quantities.

FELLING TREES BY ELECTRICITY.—Hitherto machines for felling trees, says the *London Times*, have been driven by steam-power, but this is sometimes inconvenient, and electric-power has recently been adopted in the Galician forests. Usually in such machines the trunk is sawn, but in this case it is drilled. When the wood is of a soft nature, the drill has a sweeping motion, and cuts into the trunk by means of cutting edges on its sides. The drill is actu-



SONORA, THE COUNTY SEAT OF TUOLUMNE COUNTY.

and afford every opportunity to gain all the knowledge desired of the country's resources, which are great. In the Rural of April 20th, one of our correspondents gave an interesting account of the horticultural interests of Tuolumne county. Though the mining industry is still predominant, the development of the fruit and other agricultural industries will advance rapidly as soon as adequate outlet for the products can be had.

Tuolumne county is bounded on the northwest by Calaveras; on the northeast by Alpine and Mono; on the south by Mariposa, and on the southwest by Stanislaus. The following paragraph concerning the county is taken from the last report of the State Mineralogist:

Like most of the counties lying along the main gold belt, Tuolumne covers a portion of the foothills and the westerly slope of the Sierra Nevada, giving to the whole county a rugged surface, and to the eastern portion of it a considerable altitude. In the Sierra Nevada, on the confines of this and Mono county, stands

and Calaveras county. As these several rivers have many confluent, some of them considerable streams, this becomes a well-watered county. About the sources of the Tuolumne river are many small lakes, some very deep, and all remarkable for the purity of their water. As Tuolumne is well supplied with water, so is it also abundantly timbered, the more elevated portions of it being covered with pine, fir, spruce and cedar, and the lowest portions with scrub pine and oak. While gold mining continues to be in the county the leading industry, farming, viticulture, fruit-growing, lumbering and stock-raising are here important and growing pursuits, many of the inhabitants dividing their time between these vocations and mining.

AMERICA publishes more papers than all the rest of the world combined. Last year its 17,107 periodicals printed the enormous number of 2,959,566,500 copies—enough to supply every soul on earth with two newspapers.

cotton is an experiment at present, he is firmly of the opinion that the fabric made from it will be a great favorite upon the market, and the demand constantly increase. The specimens of the crude wool-cotton can be seen at the Board of Trade rooms by applying to Secretary Smith. Some of the experimental cotton-growers of Fresno county examined it yesterday, and pronounced it a phenomenon in cotton growth.

BULL-DOGS AS FIRE PREVENTIVES.—It is reported that the Standard Oil Co. has placed an order in Philadelphia for 200 bull-dogs, which will be used to guard the company's tanks in the Ohio field against tramps. Numerous fires have been caused by sparks from the pipes of tramps, and it is thought that the bull-dogs will keep them away.

CODFISH ON THE COAST OF SAN DIEGO.—It is said that D. Schuyler of San Diego City has about organized a party to explore the codfish-banks reported off that coast by the Fish

ated by an electric motor mounted on a carriage, which is brought up close to the tree and shackled to it. The motor is capable of turning around its vertical axis, and the drill is geared to it in such a manner that it can turn through an arc of a circle and make a sweeping cut into the trunk. The first cut made, the drill is advanced a few inches, and another section of wood removed in the same way until the trunk is half severed. It is then clamped to keep the cut from closing, and the operation continued until it would be unsafe to go on. The remainder is finished by a hand-saw or an ax. The current is conveyed to the motor by insulated leads brought through the forest from a generator placed in some convenient site.

A PALM-LOG CABIN.—The San Diego *Sun* says that Ex-Gov. Eli Murray, who has a ranch in the "free zone" ten miles below the line, is going to build himself a house there of the logs of the fan palm that grows to a height of from 30 to 40 feet in the canyons.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

A GREAT ROUND UP.—Livermore Herald, May 16: The principal cattle-owners in the Livermore stock district began on the 6th of this month a grand round up, which is yet in full progress, and will scarcely be ended before next week. Twenty men and 40 horses are engaged in the work, and in order to evade the necessity of feeding an army of camp-followers (some 70 in number at the last round up two years ago) the preparations were made with the greatest secrecy. The cattlemen present or represented were Hubbard, Maxey, Hayes, Roga, Green, Bronson and Clark, each with their vaqueros, and a saddle train for blankets and provisions. The work was begun at Mt. Hamilton, carried eastward to the San Joaquin plains, and as far to the south as San Antonio valley. The worst canyons, including even the almost impenetrable Hospital, were explored, and hundreds of head of cattle gathered up. Many were brought in which their owners had not seen for two years.

Butte.

CHICO CHERRIES.—Enterprise, May 20: Fifteen thousand two hundred and ninety-three pounds of cherries were shipped by the Rancho Chico Fruit Co. from the 8th to the 15th—one week. Last Friday there were 329 boxes shipped, and on Saturday 427 boxes.

Colusa.

PEARS IN INDIAN VALLEY.—Colusa Sun: Mr. Hencke of Indian valley has a few small Bartlett pear trees, and says he has sold a remarkable amount of fruit to the tree. He has been so successful that he will next year plant ten acres or more, and his neighbor, Mr. C. Boardman, will plant as much. Indian valley lies low and is subject to frost, but it seems to be no detriment to the pear. Neither is it to apples. We are finding out slowly just what kind of fruit is adapted to each section of the country. Each little section has its peculiarity, and these peculiarities ought to be studied.

Contra Costa.

SILKWORMS.—Antioch Ledger, May 18: Mrs. Abbott Sellers has a fine lot of silkworms this season. Most of them have already accomplished the object of their being, and only a few still require to be carefully watched and fed. It is exceedingly interesting to watch the rapid development of the spinners from the tiny seedlike egg just informed with life to the moment when the fullfed embryo weaves its silken shroud. Miss Mia Nason last season secured two or three moths and preserved the eggs of one, and has now 428 silkworms almost full grown. Several other ladies are raising silkworms in town.

AGRICULTURAL ASSOCIATION.—Martinez Item, May 18: The meeting of citizens of this county, held at Bennett's hall this afternoon, for the purpose of organizing District Agricultural Association, No. 23, with its place of business at Concord, was a small one. Hon. Henry Hook was selected chairman and made a brief speech. For secretary, G. P. Loucks put in nomination S. Farjeon, who was unanimously elected. The adoption of the articles of incorporation was moved and carried. The election of directors was the next order of business, and the following were submitted by the chairman: R. G. Dean of Brentwood, J. H. Tennent of San Pablo, H. Raap of Martinez, G. Durham of Concord, G. P. Loucks of Pacheco, Farmer Sanford of Walnut Creek, D. M. Sherburne of Danville, and R. C. Terry of Clayton. They were unanimously elected. Several brief addresses were made in course of the meeting.

MORE CHICKENS.—Gazette: E. Moeler, who purchased the property on the hill owned by Prof. Langer, has established a poultry yard for raising all fine breeds of chickens. He has several incubators and brooders of improved pattern, and at his place can be seen many fine fowls. Martinez has now two first-class poultry yards.

Fresno.

TAKE CARE OF YOUR POISON!—The Sanger Herald says: A pet horse belonging to Dr. M. C. Hoag's family died last week from eating wheat which had been poisoned for squirrels. The doctor discovered the animal at the feast, it having got at the wheat while roaming loose about the barn. Believing that it would die from the effects of the poison, he drove the horse out of the barn, and when but a short distance away it keeled over. Another valuable horse which Dr. Hoag had recently purchased also died from the same cause.

FIELD FIRE.—Expositor, May 15: A very disastrous fire occurred yesterday morning, a large tract of wheat being destroyed, probably from the sparks of a locomotive. There are 400 acres in the tract, which is about four miles north of Fresno. The grain belongs to Messrs. Woodward, Vogle & Hall. At noon to-day Mr. Hall had not ascertained how many acres were swept over by the flames. He stated that should it all be destroyed the loss would amount to \$4500 or \$4800; no insurance. The grain was planted early in summer-fallow, and it would seem hardly possible that it would be dry enough to burn at this time; nevertheless the owners fear it is a total loss.

Humboldt.

AGRICULTURAL ASSOCIATION.—Rohnerville Herald: The annual meeting of the Directors

of the Ninth District Agricultural Association was held at McNeill's hall, Rohnerville, on the 11th inst. G. C. Barber was re-elected president, Geo. Underwood secretary, and L. Feigenbaum treasurer. A speed program for the coming fair, which will hold for five days, was partially arranged. Important improvements will be made at the pavilion grounds, including a new grand stand.

Kern.

GROWING GOBBLEERS.—Bakersfield Echo, May 16: Clark & Spright have a turkey ranch out in the weedpatch. For the last three months they have had 186 turkeys there and have fed them no grain whatever. The birds have done well on alfalfa, grasshoppers and a weed known as "turkey mulla." They have 900 eggs now hatching and expect to set 1000 more. They propose to put a stop to the importation of holiday turkeys from Kansas so far as they can.

Lassen.

ALFALFA.—Susanville Advocate, May 16: Otto Ranker, a young man who is excessive in his praises of alfalfa, informs us that he has this year secured a good "stand," by irrigating only in the spring, when others are not using the water. He got the idea from an article in the Advocate some time ago, relating the experience of lower country ranchers in winter and spring irrigating, and resolved to try the method, with the result that his alfalfa has a good start.

Los Angeles.

VOLUNTEER SCALE DESTROYERS.—Telegrams from Pasadena state that thousands of red ladybugs, not the Australian species, have come voluntarily into that vicinity within the last few days, eating up the dreaded cottony cushion scale on the citrus trees. The progress of their work will be watched with great interest by orange-growers.

GRAIN ABLAZE.—Los Angeles, May 15: Passengers arriving by this evening's train from Santa Monica state that when they passed The Palms, six miles this side of Santa Monica, a furious fire was raging in the wheat-fields of the Machado ranch. It broke out in a 2000-acre tract, and though all the men in the vicinity were gathered to fight the flames, they could not be checked, and the entire tract was probably burned over, entailing a loss of many thousand dollars.

Merced.

EDITORS PRESS.—Some of the Merced county farmers have been Rip Van Winkles. For 25 years they did not plant a tree nor a shrub—were going to leave when they made a good stake and "go home," as they called it. Now they have decided that Merced county is "home," and they have begun to plant and make homes of their cow and sheep pastures.... The rain from the 9th to the 12th of this month was grand and there will be good crops all over the county.—Mrs E. S. E., Merced, May 18th.

RYE.—Express: Merced county will this season produce the largest and best crop of rye in the San Joaquin valley. For miles and miles on the sand north and west of Merced there are to be seen great fields of this grain waving in the breeze. The land on which it is raised only has to be seeded every four years, and it is therefore said to be a paying crop. The grain is now ripe.

Modoc.

FROM NATURAL RESERVOIRS.—Alturas Independent, May 16: A few weeks ago we mentioned that G. E. Williams and Wm. Cantrall were preparing to tap Clear lake, and that Messrs. Flournoy and Duke had tapped Blue lake to get more water for irrigating purposes. Mr. Williams was in town last Friday and informed us that both schemes were a success, and the farmers up that way are highly elated. Where the creek flows from Clear lake there is a ledge of solid rock extending across the entire channel of the creek, which, by the way, is a narrow defile in the mountains, rocky bluffs rising on either side. They went to work and cut out about a foot of this ledge or riffle, thus deepening the channel of the creek one foot. The result was that a large volume of water came down into the South fork, and all the farmers, who prior to that time had little or no water, found that they had plenty. The water in the lake was lowered about a foot, when the storms came on, and the outlet was closed to allow the lake to refill. Mr. Williams says they intend to reduce the riffle to the extent of three feet, or to draw so much water from the lake as occasion requires. He further says that this fall he and Mr. Cantrall will put a dam across the outlet of the lake, so as to raise the lake eight feet during the time that water is not needed, and that by this means there will not again be a scarcity of water in South fork. Mr. W. says the whole thing, putting in dam and all, will not cost to exceed \$150.

Sacramento.

RECLAMATION ON GRAND ISLAND.—Record-Union, May 15: The farmers along Old river, on Grand island, have already commenced levee-building, and the work seems to be such as to warrant the reclamation to be of a permanent character. It is certain that it will be such on Old river, and if the work on Steamboat slough is of the like solid nature, it will make Grand island the garden spot of California, and land will jump up in value to hundreds of dollars per acre. Two dredgers are working on the slough side. The breaks are closed.... The Phelps ranch, opposite Walnut Grove, which was sold by the Public Administrator recently to Howard Kercheval, is being cleared of wood, the levee is being overhauled and strengthened

and the place will all be planted with fruit trees.

"A BRAND-NEW BUG."—Record-Union, May 16: Fred A. Ebel, the well-known florist, says he has discovered an insect pest in this city which he thinks is an entirely new species. In front of the residence of A. A. Van Voorhies, at 14th and H streets, one of the corkelm trees on the edge of the walk is infected with a white scale. It is about as large as the black scale, looks something like the cottony cushion scale, but is quite distinct from either in structure and habits. Mr. Ebel, who is thoroughly acquainted with all kinds of insect pests, says this is a "brand-new bug." It covers the under side of all the upper limbs of the tree mentioned, and is found on many of the lower branches.... May 17: Pest Inspector Flynn announces that the scalebug reported by F. Ebel as a new-comer is in reality one of the pioneer variety, and rejoices in the name of *Aspidiotus rapae*.

San Bernardino.

AGRICULTURAL ASSOCIATION.—Ontario Record, May 15: The newly-appointed Board of Directors of the 28th Agricultural District (San Bernardino Co.) met on Thursday and organized by electing L. M. Holt, Pres.; J. C. Scott, Sec.; and the Farmers' Exchange bank, treasurer. It was ordered that the first annual fair of the association be held during the month of March, 1890; that the fairs held by this association shall include exhibitions of horses, cattle and other stock, agricultural, viticultural, horticultural, mechanical, manufacturing, mineral and domestic products of the district, with a view to the improvement of all the industries of the county. A committee of nine was appointed to receive proposals for a site for a pavilion and report the same, together with a plan for raising funds to build the same. Four members of the committee were to be appointed from the board, and five members from residents of the county. Following is the committee: Col. W. R. Tolles, I. N. Hoag, R. F. Cunningham, W. E. Collins, Judge J. L. Campbell, H. L. Drew, Fred T. Perris, M. B. Garner and Smith Haile. A committee of nine was also appointed to select a site for an agricultural park for stock exhibits, and to report a plan for raising funds to secure and improve the same. This committee was to consist of four members of the board and five other residents of the county. The committee stands as follows: E. Rosenthal, Geo. L. Joy, R. F. Cunningham, Dr. J. Jarvis, J. A. Cole, J. W. Waters Jr., Richard Gird, J. G. Bart and P. K. Klinefelter.

ORANGE SHIPMENTS.—Citrograph, May 18: On Saturday night last the Southern Pacific shipped out 46 carloads of oranges to different points, which brings the shipments to that date from Southern California to over 2000 carloads, and there are fully 200 more to go forward before the crop will have all been taken care of. Orange-growing is a business in this end of the State.

THE REDLANDS ORANGE GROVE AND WATER CO. perfected its organization this week by electing F. P. Morrison, Pres.; S. J. Hayes, V. P.; A. E. Sterling, Sec. and general manager; and the First National Bank, treasurer.

San Diego.

HAY SHIPPED NORTH.—San Diego Sun, May 14: One hundred tons of hay from Tom Daly's place in El Cajon valley are being loaded into the schooner Robert Searles for ballast. It is consigned to Chas. Hanson & Co. of S. F. for delivery at Tacoma, where the firm operates a lumber-mill. Hay is laid down at S. F. for \$10 a ton, but the San Diego county product will cost that firm but slightly over \$3 a ton.

BEES VETO CULTIVATION.—A. Titus of the Tia Juana valley was going over his fig orchard with an Acme cultivator the other day, and drove the team against a huge swarm of bees that had settled on the limb of a tree. The bees at once swarmed all over the team and stung them in many places, notwithstanding which the animals remained quiet and obedient to the rein. He drove out hurriedly and succeeded in brushing the bees off and getting the horses in the stable. Mr. Titus was not stung himself. In the afternoon he hitched up again to finish the work, and almost the first round ran into another swarm, causing him to retire precipitately from the orchard.

SUGAR BEETS.—Great interest is manifested among the Tia Juana farmers in the proposed sugarie of the Spreckels Brothers. Wallace Dickinson is taking pains to distribute samples of sugar-beet seeds for trial, and several farmers are already supplied.

ENGLISH BROAD BEANS.—Yesterday Gen. Eli Murray exhibited at his office a number of fine beans of the English Broad variety, grown upon his ranch in the Valley of the Palms. The pods are five or six inches long, three-fourths of an inch broad and contain a large, flat bean very much like the American butter bean. Gen. Murray says there is scarcely any limit to the number of beans that can be raised in that section.

EL CAJON STATISTICS.—Cor. Union, May 13: Deputy Assessor J. Rea has just completed the assessment of property in El Cajon valley, and the list is as follows: Lemon trees, 631; orange, 12,268; olive, 11,452; apple, 4139; pear, 8604; peach, 13,297; quince, 205; fig, 3753; plum and prune, 6106; cherry, 135; apricot, 6089; nectarine, 761, making a grand total of 68,440 trees, not including English walnuts, loquats, guavas and other varieties that have

been quite extensively planted. Mr. Rea reports the present season's hay and grain crop at 2449 acres, and the acreage in vineyards at 3056. Of course, not all these trees and vines are in bearing, but they will be in two or three years. There will then be plenty of fruit to justify the establishment of an extensive cannery in the valley, taking the item of peaches alone. And let me say that the El Cajon peach is not surpassed in size and quality by any grown.

San Luis Obispo.

FOR ARTESIAN WATER.—S. L. O. Tribune, May 17: E. H. Crawford is boring a deep well on his ranch near Steele's station, in the confident hope of getting artesian water. He has already bored 200 feet and has 180 feet of water in the well. As there are no other similar wells in that vicinity, the venture is in the nature of an experiment; but he is quite sure of getting a good strong flow at a depth of 300 feet. Mr. Crawford is prepared, however, to go down 900 feet if necessary. Should the venture prove successful, Messrs. Maxwell, Roselip, Steele and others will follow his example.

Santa Barbara.

TREES AND VINES.—The Santa Maria Times of May 11th prints a list, prepared by Chas. Froude, of those who have set out fruit trees in that valley during the past two seasons, with the number of trees planted by each person or firm. This list, which does not include family orchards, but only those put out for profit, foots up over 92,000 trees, citrus and deciduous, besides more than 68,000 vines.

Santa Clara.

CHERRIES GOING EASTWARD.—San Jose Mercury, May 20: Under the caption, "Cherries by the Carload," the Union of yesterday says: "The first carload of fruit to be sent East from Sacramento this season was yesterday shipped by the California Fruit Union to Chicago. It was a shipment of cherries and consisted of 2000 boxes." The shipment was made by J. Z. Anderson of this city through the California Fruit Union, and one-half the shipment was procured from orchards in the immediate vicinity of San Jose, and the remainder from San Leandro. Not a single box of the 2000 was grown in Sacramento county. If the weather continues favorable Mr. Anderson will this week ship four carloads (8000 boxes) of cherries to Eastern points. Mr. Anderson says the cherry crop of this county is in fine condition, very little damage having been done by the rains, as the fruit at that time was not far enough advanced to be easily injured.

Santa Cruz.

ROSE FAIR.—Watsonville Pajaronian, May 9: The Rose Fair, given by the ladies of All Saints' Episcopal church in this place, opened on Thursday evening last, closing Saturday night in a halo of splendor. The vast auditorium of Ford's Opera-house was one sea of budding, blooming, variegated and fragrant flowers. The floral goddess sat a queen indeed in tropical robes of regal beauty and sweetness. But to undertake to itemize or individualize would occupy space far beyond our limits.

HANDLING THE BEETS.—We have heard of one beet-grower near Watsonville who has contracted for the thinning, cultivation and digging of his beet crop at \$1.50 per ton, and who is to pay 50 cents per ton for hauling. He has contracted at very favorable figures.

GRAIN LICE.—Prior to the storm the aphid arena, or grain louse, had made its appearance in nearly every field of late-sown barley in Pajaro valley. The louse was doing considerable damage, and but for the rain would have nearly ruined the barley crop.

Sierra.

SAINFROID.—Gazette & Stockman, May 16: G. E. Woods, the Sierra valley farmer, sowed a pound of espersette last year on a piece of foothill land of a rotten granite formation, dry as a powder-horn, with splendid success. It is now eight inches high and very rank. Mr. Woods is of opinion that it will thrive in the poorest of dry land.

Stanislaus.

PROPOSED CANAL.—Modesto, May 16: P. Y. Baker, engineer of the Modesto irrigation district, submitted a report of the survey to the Board of Directors this afternoon, under the provisions of the amended Wright Irrigation Law. The district comprises 80,000 acres, and its estimated cost is \$241,000. The point of diversion is at Thompson's ferry, on the Tuolumne river. The canal will be 50 feet wide on the bottom and 5½ feet deep, carrying 430 inches of water per second. The estimate is considered reasonable, and Baker offers to construct the canal for the above figures. The canal will be 34 miles long.

POISONING SQUIRRELS.—Modesto Herald, May 16: Kill the squirrels! Thousands of young ones, called out by these warm spring days, are producing sad havoc with our grain fields. A half-grown squirrel eats nearly double the amount that an old one does, and a hill of them in a few weeks' time will cut down every stalk within a circle 50 yards across. Young squirrels will eat the first thing they come to when they come out of their holes in the morning, and poisoned wheat scattered liberally around will kill every one. Besides, they prefer the taste of dry grain to the green. Four years ago the writer experimented on his brother's farm west of Turlock with the "Dead Shot Squirrel Poison." It was during May, and young squirrels were very numerous and exceedingly destructive. With a horse we went

over a half-section one forenoon, going only to the knolls where the squirrels had been at work, and scattered the poisoned wheat plentifully. Toward evening we went back over the field and found nearly 200 dead squirrels. Most of these were young ones. We found as high as 15 dead on a single hill. Every kernel of grain had been eaten, although the growing grain "was in the dough," which is said to be the state when squirrels like it the best. Farmers will find it much easier to poison squirrels now than at any other time of the year, and no work that they may do will benefit them as much as that of a few days employed in putting out poisoned wheat.

Ventura.

CITRUS SUCCESSES.—Hueneme *Herald*, May 16: N. W. Blanchard of Santa Paula made us a call the other day. He states that his orange and lemon orchards are doing better than ever before. His shipments of oranges for the season will foot up over 20 carloads, and he estimates that during the present year he will sell 3000 boxes of lemons. Mr. Blanchard spent many years in bringing his orchards into bearing, and it is gratifying to know that his labors promise to be so well rewarded.

Yolo.

SUGAR BEETS.—The Woodland *Democrat* states that samples of beets grown from seed furnished by Claus Spreckels to C. F. Reed, and planted by the latter near Knight's Landing on the ranch which he subsequently sold to Senator Fair, exceeded in sugar all other samples from the different parts of the State, the sugar tests being an average of 17½ per cent sugar for the whole lot of 20 tests, and the highest test being 22 per cent. Senator Fair has had 10 or 12 separate patches planted on his farm, and about a dozen different farmers in a radius of five or six miles from the Landing have been supplied with seed which they have planted. Should the further tests confirm the previous ones, a sugar plant will be immediately erected at the Landing.

STRAWBERRIES AND GRAPES ON CACHE CREEK.—*Democrat*: We visited the strawberry-fields of Jerome Baker, and found 16 or 18 Japanese under the supervision of Mr. Martin busy as bees among the delicious berries. The extent of the field is about ten acres, and the men are picking from 1000 to 1500 pounds per day. The late rain has had no perceptible effect on the berries, and will doubtless make the second crop a splendid success. Messrs. Baker & Martin are getting rid of all varieties except the Triumph, which is a splendid red berry, sweet and solid, fit for transportation. . . . Mr. Dickinson, who has a 20-acre farm on the Pearl tract, showed us Muscatel vines from the cuttings of last year that had as many as a dozen bunches of grapes to the vine. In fact, there will be enough raisins on the vines for this, the second year, to well pay for the care of the place.

WELL WORTH SAVING.—Woodland *Mail*, May 18: Some weeks ago a fine blooded colt, the property of a rancher living near Woodland, ran against a barbed-wire fence and so injured its right fore shoulder that its life was despaired of. Going to Veterinary Surgeon DeFries, the rancher presented him with the colt with the understanding that he either cure it or ease its last days as much as possible. The surgeon accepted the animal, placed it under treatment, and to-day exhibits a colt worth \$300, and as sound as a hickory nut.

SHEEP DROWNED.—Some five miles below Knight's Landing, Wednesday, a band of 50 sheep belonging to a rancher stampeded and rushed into the river. Thirty-four valuable animals were lost and floated down stream.

Yuba.

MARYSVILLE MISCELLANY.—*Appeal*, May 17: Large quantities of the spring clip of wool have commenced to arrive. The price paid is about 20 cents. . . . The regular monthly meeting of the Sutter Horticultural Society was held yesterday afternoon, and the subject of "Summer Spraying" was discussed by the 15 or 20 members present. All were of the opinion that summer spraying of the orchards is advantageous, and that whale-oil soap and sulphide of soda is the best wash. . . . Upon invitation of Judge Garber, an *Appeal* reporter took a ride for several miles on the Feather river road last Sunday, and with him examined into the condition of the crops. Along the road on either side is considerable summer-fallow, and none of it seems to have been affected by the recent storm. Judge Garber has 113 acres south of the Rogers farm, which he thinks was positively benefited by the rain. All of the winter-sown is looking remarkably well. . . . Marysville oranges, which have been packed for nearly five months, were sold on the streets yesterday by two young men at 10 cents per dozen. The fruit was in a remarkably good state of preservation. . . . "All the talk about the hay crop in the foothills being ruined," said F. R. Lofton, yesterday, "is hosh. It's looking fine, and was benefited by the rain." This, of course, relates to the uncut crop.

NEVADA.

DROUTH AND CROPS.—*Silver State*, May 15: P. N. Marker, Water Commissioner for the Humboldt river and its tributaries, and ex-County Commissioner Thies of Lovelocks say that not enough rain has fallen this spring to lay the dust, and hundreds of acres of grain sown early in the year has not sprouted. The ground is perfectly dry, and as there is no

water to irrigate it and none falls from the clouds, the grain lies in the parched earth as sound as when it was sown months ago. Some farmers have planted potatoes down near the lake and in the bed of the river, with a prospect of raising good crops, as the ground is moist and likely to continue so. Some others are putting in pumps and windmills, with the hope of getting water enough to irrigate small vegetable patches to supply their families. The alfalfa looks fairly well, and the prospects for at least one crop are good. Generally three crops are produced in a season, the average product of a season ranging from three to five tons per acre. This year, however, farmers do not expect to harvest more than one crop, and that will not be up to the average.

OREGON.

CONDENSING MILK.—Portland *Oregonian*, May 17: C. L. Baker & Son, the "Oregon Condensed Milk Co.," have begun the manufacture of preserved and cream milk at the Stott farm, near Troutdale. They have nearly 800 acres of land and a factory with the necessary machinery, which employs eight men and uses the milk of 135 cows daily, about 1500 quarts, which is condensed into 500 quarts. Pure unskimmed milk, condensed at a low temperature by the evaporation of 80 of the 87 parts of water it contains and the removal of all impurities and animal flavors, yields an article having the appearance of cream, and hence it is called "cream milk."

NEW WOOL ARRIVING.—Wool of this season's clip is beginning to come in, and the market prospects are somewhat better. Captain George Pope & Co. have leased Columbia dock No. 2, which is 500x350 feet, and fitted it up as a wool-packing house, with two new presses and other machinery of the latest pattern, and have already there 50,000 pounds of this season's clip, from Grant and Gilliam counties and from the Kikikat. The wool from some sections this year is of superior quality, but from other sections it is very sandy and dirty. They have already received extensive orders, which seems to indicate that there will be a good demand for wool.

FRUIT FOR DISPLAY.—The Oregon Immigration Board have lately received ten cases of choice dried fruit, for which they are indebted to the thoughtfulness and generosity of the Board of Trade of Eugene City. The cases are covered with glass, and the apples, prunes, plums, etc., show to advantage.

THE FLOUR TRADE.—"Since the Idaho was put on the route to the Sound and British Columbia," said a dealer in flour yesterday, "Portland is regaining her flour trade in that country." "How did you lose it?" asked a reporter. "Well, the Northern Pacific raised the rates from Portland to Seattle to shut out Portland millers and let in mills along their lines, but they succeeded in letting in California flour, which could be brought from California cheaper than we could ship it under the rates charged. Then the O. R. & N. Co. put on the Idaho and the N. P. had to put the rates back to the old figure, and now we are working to get the trade back. The California flour is good, but not so good as that made from Willamette valley wheat, which is whiter and better, and we are going to have the trade, sure."

FLOCKS AND HERDS.—Lakeview *Cor. Reno Gazette*, May 10: It is estimated that there are at present nearly 250,000 sheep in Lake county, against 220,000 at this time last year. It is anticipated that 50,000 head of transient sheep will also summer in Lake county—principally from the Sacramento valley. The sheep that are here at this early season are those that have been wintered on the great desert that lies in the northern part of Lake and southern part of Grant counties. Horses, sheep and cattle are wintered in great numbers on this vast desert, at slight expense and usually with little loss. It is necessary for herders to be constantly in attendance of the sheep, but other stock are allowed to roam. Sheep have now all been removed from the desert and rodeos are gathering up the other stock. Owing to the last winter having been an open one, all stock in this vicinity, both on the desert and other ranges, have come forth this spring in unusually good condition. . . . The sheepmen report an unusually prolific season among the ewes, some parties claiming their lamb yield to be as high as 110 per cent. But few lambs have been lost by the present storm, and, unless it should continue with great fury, no serious losses are expected.

ELECTRICITY AS A RAILROAD BRAKE.—The method of stopping the electric cars on the English road where the series system is used is not done by the ordinary brake, but by momentarily short-circuiting the motor and immediately reversing the current through the field magnets.

SAWMILL BURNED.—The sawmill of the Caspar Lumber Co. at Caspar, Mendocino county, was totally destroyed by fire on the night of May 17th. The fire is supposed to have originated in the engine-room by the explosion of a coal-oil lamp.

PROF. A. VAN DER NAILLEN, who was badly hurt in the elevator accident in the Bancroft building last September, has brought suit against H. H. Bancroft and the other directors of the Bancroft Publishing Co. for \$25,000 damages.

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In our new Popular Dance Collection (\$1) there are many new and sparkling Waltzes, Polkas, etc.

Spend a V in providing such books as the above, and also the genial College Songs (50 cts.), College Songs for Banjo (\$1), for Guitar (\$1), or War Songs (50 cts.), or Good Old Songs We Used to Sing (\$1), or one or more of our excellent Glee or Chorus collections. (See Catalogues.)

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MRS. HATTIE S. JONES,

Box 18, Yuba City, Sutter Co.

Arrival of the Survivors from Samoa.

On Monday a steamer unused to our waters entered the harbor and proceeded directly to Mare Island. She was the Rockton, a steamer especially chartered in Sydney to bring home the survivors of the sad marine casualty in the harbor of Apia, where a tropical storm wrecked

ed fatal to so many. The scene was impressive, and its spirit will no doubt be reflected in the thanksgiving through the country for the safety of the rescued.

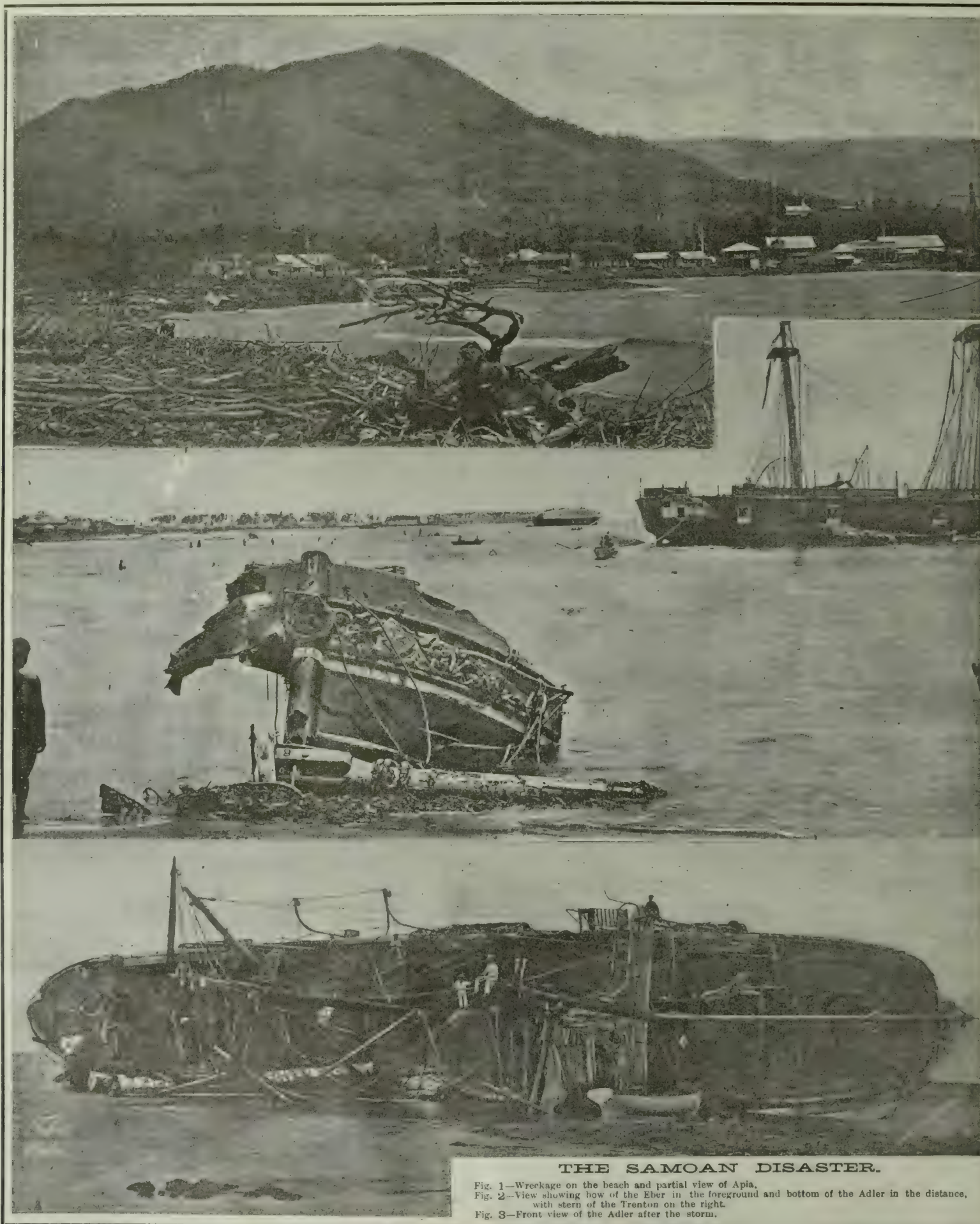
The incidents we have described will give new interest to scenes representing the disaster at Samoa which we give on this page. The views are by the Dewey Engraving Co.'s photoplate system from photographs. The upper view is of a portion of the harbor of Apia, showing a

hull of the Adler is seen, and in the background the shore of the harbor.

The third picture shows the German corvette Adler as she was left high and dry on her beam ends on the beach. While she fared better than her consort, the Eber, she is nevertheless represented as a total wreck. Her casualties were 20 men killed and drowned.

These figures give, of course, but a faint idea of the events, but the pictures showing the

GREATENING ORCHARDS.—As a sign of the rapid growth of the fruit interest in California an exchange notes the fact that W. R. Strong & Co. of Sacramento sold between 600,000 and 700,000 deciduous fruit trees, and about 125,000 orange trees last season. Of the latter, 60,000 went to Oroville and 35,000 were sold in Los Angeles, San Diego, and San Bernardino counties, the balance being distributed through Central and Northern California. If this one firm



THE SAMOAN DISASTER.

Fig. 1—Wreckage on the beach and partial view of Apia.

Fig. 2—View showing how of the Eber in the foreground and bottom of the Adler in the distance, with stern of the Trenton on the right.

Fig. 3—Front view of the Adler after the storm.

the war ships of the American and German Governments, drowned many officers and seamen and cast others upon the shore, where they occupied temporary shelter until the steamer arrived to bring them to this country. The approach of the survivors was not announced, but as soon as the coming of the Rockton was made known, her greeting from the wharves and from ships in the harbor was loud and cordial. As the steamer approached the wharf at Mare Island the band on board struck up Home, Sweet Home, and the men on the Government ships and in the navy-yard hastened to shout out their welcome to their comrades who had survived the perils of the deep which had prov-

part of the town on one side and the debris and wreckage left by the hurricane on the beach on the other.

The central view shows the remnant of the battered bow of the Eber, all that held together of a once noble vessel. The wreck of this ship was so sudden and complete that out of a crew of 78 officers and men, only five were enabled to save themselves. To the right is the stern of the Trenton, the flag-ship of Admiral Kimberly and the American squadron. After heroic attempts to save her she was driven aground by the fury of the hurricane. In her loss of life she was extremely fortunate, only one man being reported lost. In the middle distance the

wrecks and displacements will enable the reader to appreciate the vast forces of nature engaged better than columns of description.

HE SMOKED UP HAY AND WAGON.—A few days since an El Cajon farmer started for San Diego with a load of hay. He was enjoying a good smoke, when suddenly he scented fire. Turning round, he found the hay all ablaze, it having caught from a spark out of his pipe. The entire load and the wagon were burned.

A NEW FLOUR-MILL that will turn out 100 barrels of flour a day has recently been built at Eagle Rock, Utah, by Mr. Farr.

has sent out over three-quarters of a million trees in a single season, the aggregate distributed from all the nurseries must be something enormous. Strong & Co. have now 100,000 orange trees growing in Florida, 46,000 of which are already engaged for the coming season.

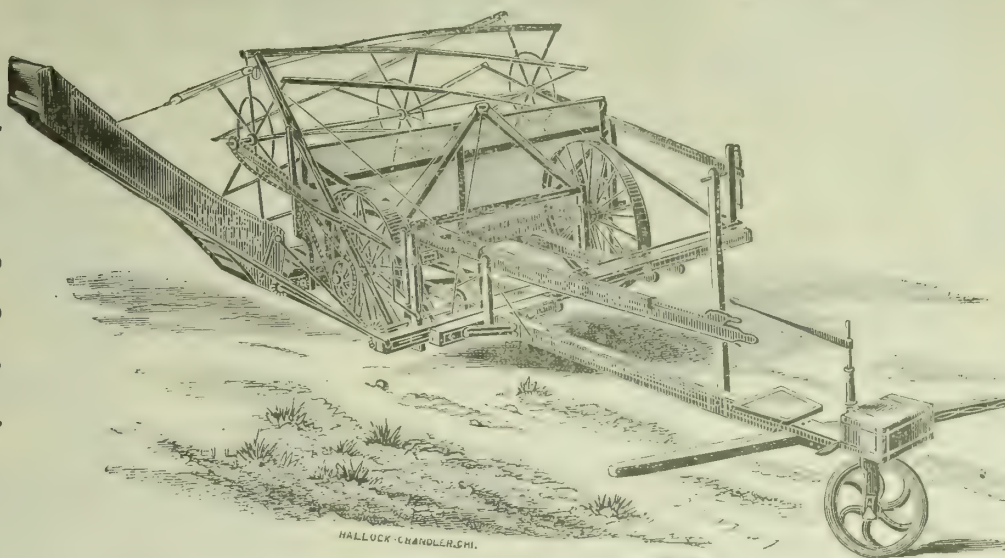
OBJECTS TO ELECTRICITY.—William Kemmler, who has been sentenced to die by electricity, for killing a woman, is in mortal fear of "death by battery," as he calls it. He says he would rather be hanged 40,000 times than suffer the electric death. The execution will take place at the Auburn State Prison soon after June 10th.

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Manufactured by A. J. HODGES & CO., Pekin, Illinois.

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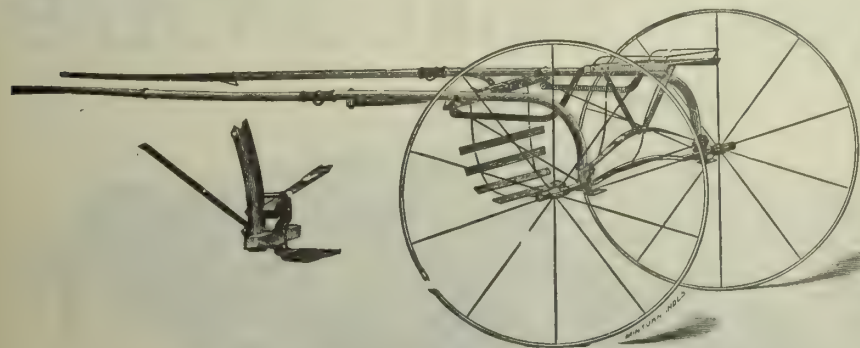
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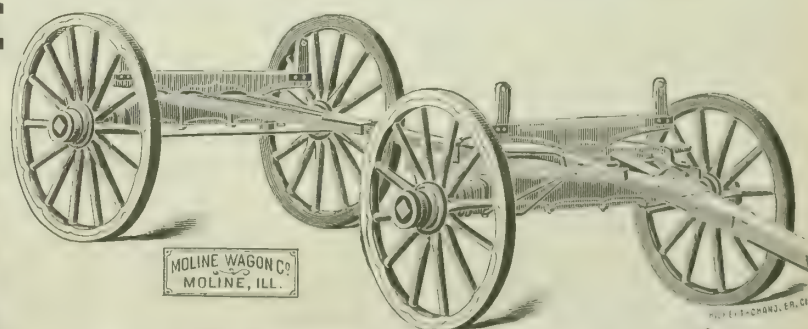
"Downs" all its Competitors. Beats Anything for the Money ever Brought out in the Shape of a Cart.

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It is Simple, Light and Strictly First Class, all Second-growth Hickory, Steel Axles and Steel Tires. PERFECTLY BALANCED. Low Bent Seat Arms, Long, Easy-riding, Oil-tempered Springs, Best Wheels and Best all over. It hangs low, rides easy and has no horse motion. PRICE, Two-Passenger Cart (Wheels, Springs and Axles guaranteed for a year), \$25.

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SHEEP AND WOOL.

Wool Facts and Figures—No. 7.

(Written for the Rural Press by J. R. F.)

The history of the development of woollen manufacture in the United States is of great interest to all, but for a newspaper article only a brief outline can be given.

Virtually the manufacture of woollen goods in this country began with the erection of fulling-mills in Massachusetts in 1648 by a society of Yorkshire people, who brought from England their looms and implements of trade. This claim of being the first to manufacture woollen goods can rightly be maintained, for the history of that period states that the "woolen webs of the hand looms of the private families were carried to the fulling-mills to undergo a process which gave them greater body and thickness, adapted them to a better finish, and besides increased their durability." This naturally led to each community throughout the colonies having a fulling-mill, while every family had its loom and every woman was a weaver. Aside from this, there were weavers who traveled with their looms from family to family to ply their trade at a stipulated price. The fulling-mills of the present day are, by connection, a part of the woollen manufactories, with probably the remote and isolated localities of the South and Central States excepted.

The first record of the building of a woollen factory in this country was in 1788, when Jeremiah Wadsworth and others erected one at Hartford, Conn. In this mill there was only one loom. The capacity of the factory was 5000 yards of cassimeres or broadcloth per annum. So important was this move looked upon by Americans that special mention was made of a visit to the factory by General Washington, who afterward wore a suit of clothes made from the broadcloth manufactured there when he made his inaugural address to Congress. Special mention was also made of the factory and its important bearing on the industries of this country, in an address to Congress by Alexander Hamilton in 1791. In this address he urged the importance of improving the breed of sheep. In 1789 another woollen-mill of about the same capacity was erected at Stockbridge, which was followed in 1790 by the erection at Watertown of another factory, having the same capacity. This gave in the latter year three woollen-mills in operation in this country, having a combined capacity of 15,000 yards of broadcloth a year.

The first incorporated woollen company organized in the United States was formed at Byfield, Mass., in the year 1794. The company built a factory and used the latest improved machinery that could be imported from Europe. They also employed skilled laborers brought over from England under charge of Arthur Schofield. In this factory, it is recorded, was made in 1804 the first fine broadcloth manufactured from merino wool. The success met with by the Byfield company led to the forming of another company in 1809 at Pittsfield, Mass., for the purpose of manufacturing fine cloth. So far as any record can be found, there were only five woollen-mills in the United States in the year 1810 that manufactured fine cloth, but there were nine others running upon coarser cloth averaging about 10,000 yards a year each. Aside from the above there were ten small factories. The statistics of that period report that the product of cloth in 1810 by the factories aggregated 200,000 yards, having a market value of from \$1 to \$10 a yard. It is also stated that in the same year there was manufactured in the private families woollen cloth to the extent of 9,500,000 yards, so that the factories cut a small figure in the total number of yards turned out. The value of the 9,700,000 yards was placed at the time at \$25,608,788. Each State had its woollen factory, the principal or largest being located as follows: Byfield, Mass.; New Ipswich, N. H.; Warwick and Portsmouth, R. I.; Derby and Hartford, Conn.; Watertown and Poughkeepsie, N. Y.; Philadelphia, Pa.; Wilmington, Del.; and Baltimore, Elkton and Frederick, Md.

In 1812 steam as a motor was first introduced into the woollens. The first application was at Providence and Middletown. The first power loom was used in 1825, when it was used by the Pontoosac Manufacturing Co. for making broadcloth, also superior all wool, cotton-warp, drab and fancy cloths. It is stated that the first large factory in the United States was erected by L. Pomeroy, who used hand-loom only. Great impetus was given to the industry by the war of 1812, owing to the large demand for military and naval cloths, blankets and negro cloths. This increased call for woollen goods was met by the erection of many more factories, whose growth was of a mushroom nature, for after peace in 1815 the superior goods, of English manufacture, were imported, for at that early day our manufacturers had neither the skill, labor, machinery nor fine wools to successfully compete against England. Heavy importation of foreign woollen goods sent prices to such low figures as to compel many of the home factories to suspend operations. The foreign imports in one year aggregated a value of nearly \$155,000,000. The depression in the industry in this country is better illustrated by the following comparison of values of woollen goods manufactured in the United States: In 1810, \$25,608,788; in 1820, \$4,418,060; in 1830, \$14,525,166; and in

1840, \$20,696,690. Urgent appeals were made to Congress for greater protection, which resulted in several changes in the tariff. In 1816 an ad valorem duty of 25 per cent was levied on all imported goods, which was to run for a period of three years, after which time it should be reduced to 20 per cent. In 1824 Congress again raised the duty on woollen goods, making the tariff 25 per cent ad valorem on all imported goods costing 33½ cents or less a yard, and 33½ per cent ad valorem on all going above 33½ cents a yard; but unfortunately for manufacturers, Congress at the same time levied a duty on raw wool of 30 per cent ad valorem on wools costing 10 cents and over a pound and 15 per cent ad valorem on all wools costing less than 10 cents a pound. England, in order to offset the changed duty, in 1825 reduced her import duty on foreign wools so as to enable her manufacturers to turn out woollen goods cheaper, by which they would be able to furnish woollen goods to America notwithstanding the higher tariff laws, which they did most successfully. In 1828 Congress increased the duties on woollen goods to 45 per cent ad valorem on all goods costing \$4 and under a yard and 50 per cent ad valorem on all costing over \$4 a yard; but at the same time the duty on raw wool was increased to fully 100 per cent ad valorem on all wools costing 8 cents or over a pound. This law, owing to the high duty on the raw material, gave only temporary relief. In 1832, Congress, to meet the demand of manufacturers for cheaper coarser wools so as to compete against foreign woollen goods, allowed all wools costing 8 cents or under a pound to be imported free of duty, but kept the duty on all going above 8 cents a pound at 4 cents a pound and 40 per cent ad valorem—the same as it was made in 1828. In 1846 the tariff was again changed, by which all raw wool costing 20 cents or less a pound should be admitted free of duty, and only 30 per cent ad valorem should be imposed on all wools costing over 20 cents a pound. The tariff on woollen goods was also reduced to 30 per cent ad valorem. This law gave more general satisfaction and caused quite an expansion in the manufacture of woollen goods. This rate of duty was kept in force until 1861, when the exigencies of the civil war caused a higher duty to be levied.

Before extending this article further for this issue it may be appropriate to refer to the improvements in the manufacture of woollen goods, and this cannot be better done than by giving the following from the business experience of the late Thomas R. Hazard, one of the earliest woollen manufacturers of the country: In 1816 and later I used to employ scores of women to spin at their homes at 4 cents a skein, by which they earned 12 cents a day at most. Inferior cotton shirting sold then at 50 cents a yard, thus requiring four days' work of the woman to pay for one yard of cloth, she boarding herself. The wool was carded into rolls at Peacedale and transported to and from on the backs of horses. Some time ago I stood in the manufactory in the same village and took note of a stripling who tended two highly-improved jennies, from which he was turning off daily as much yarn as six or seven hundred formerly spun on wheels in the same time. In the meantime the introduction of labor-saving machinery and perfected skill had so reduced the cost of goods that a superior article of cotton cloth was then sold in the village stores for 15 cents a yard, for what formerly cost 50 cents a yard. So that had this boy spinner been paid the same price per skein that was formerly paid to a woman for an equal amount of work, he would have received as much as could formerly have been earned by about two thousand hand-spinners in the same time.

COLONIAL DAYS.—In the pioneer days of New Hampshire, articles of ornamentation were almost unknown, and most articles of use were rare. In 1768 there were in the town of Sanbornton, N. H., but three horses, three great-coats, and two men each owned a pair of boots. It is said that the first person who had shoes upon his horse gave great offense to a neighbor, who was about to go on a journey, by refusing to lend his horse-shoes to be used on the occasion.

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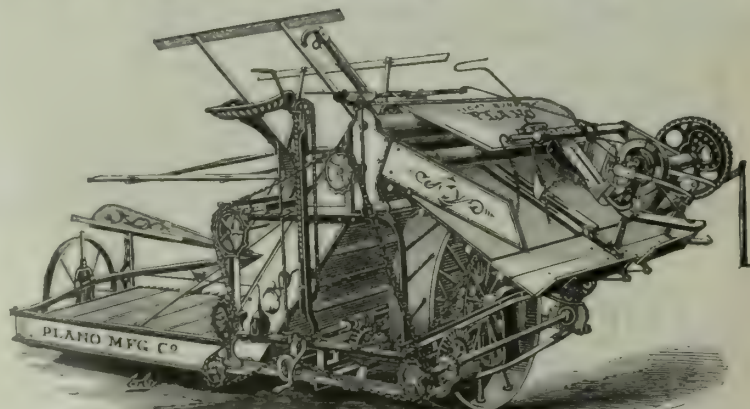
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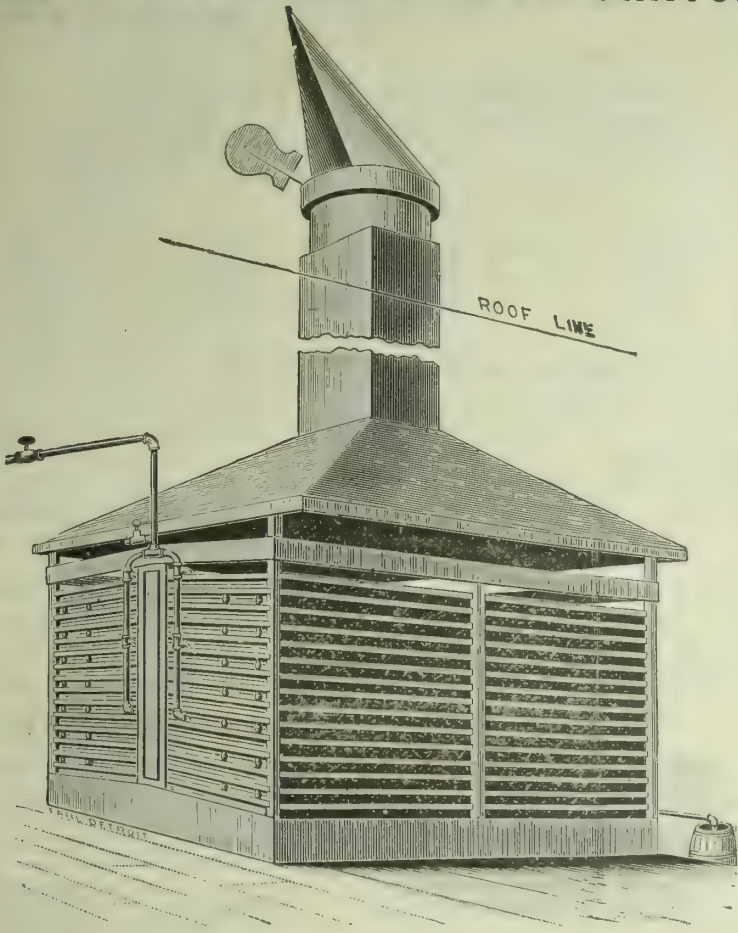
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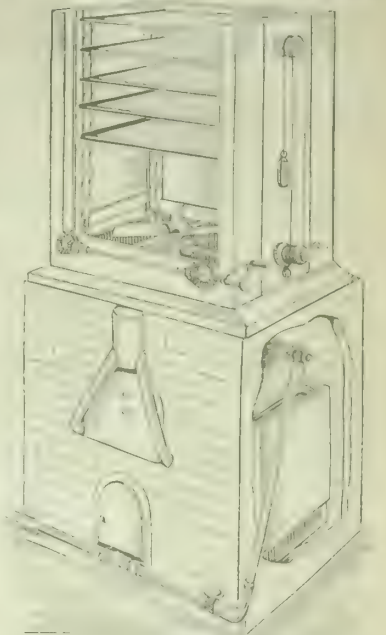
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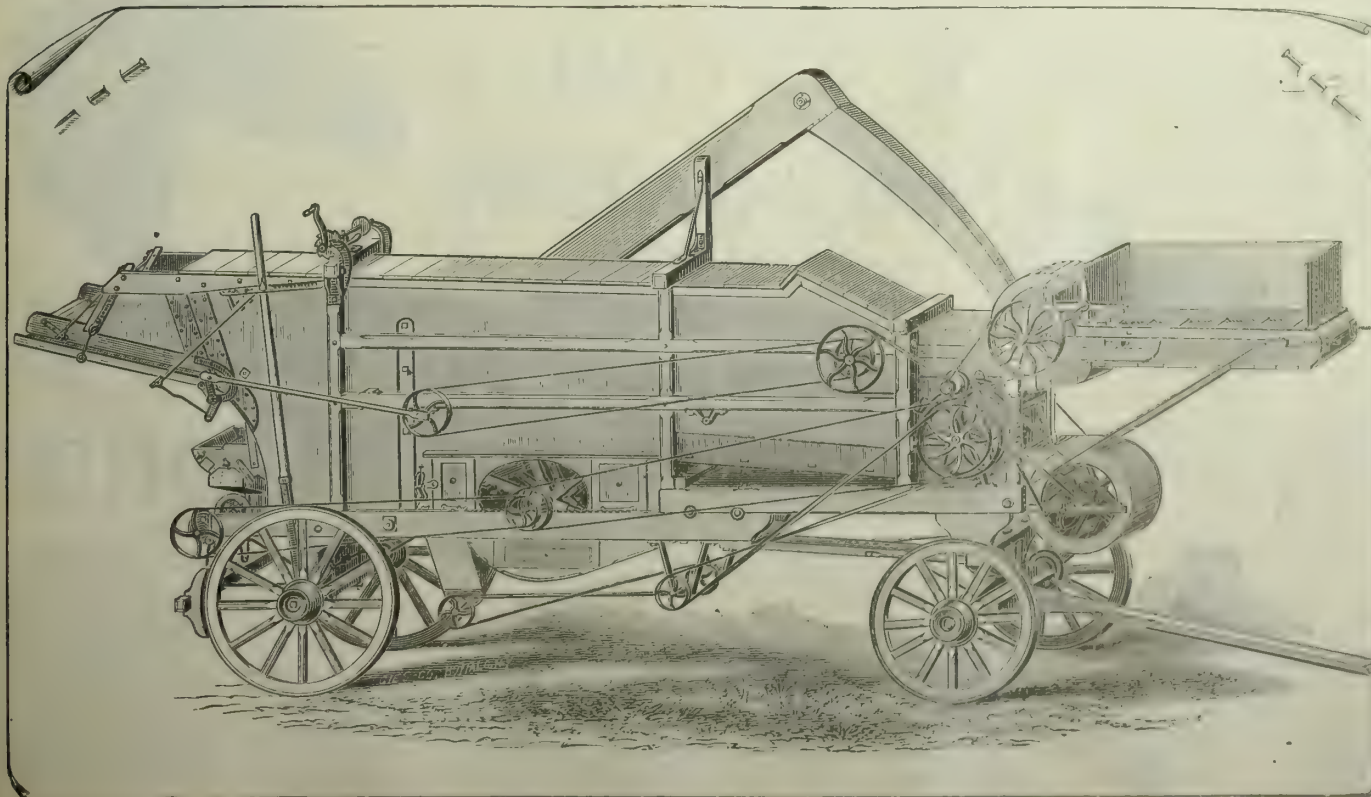
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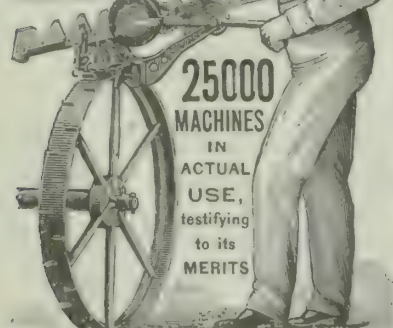
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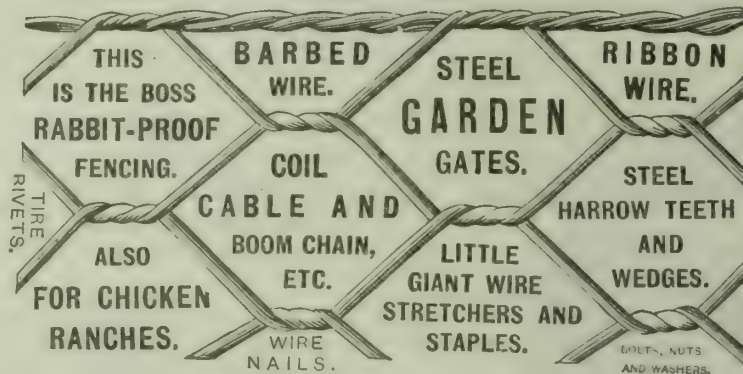
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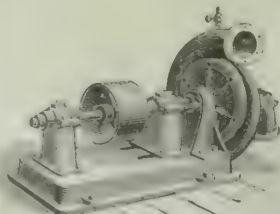
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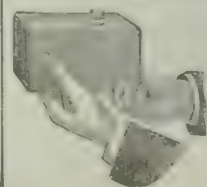
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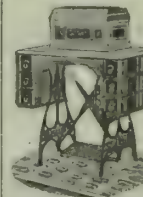
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San Jose's Floral Fair.

In lieu of a special report, by our own correspondent, of the fair held at San Jose week before last, we lay before our readers a few condensed extracts from the *Mercury* of the 9th and 10th instant:

The Floral Fair which opened at the Horticultural hall last evening was an exhibition of flowers in name only. Not that there was any lack of flowers, for there were many and all were beautiful; but because these flowers were used only as decorations to the booths and bowers and were subordinate to the draperies of lace and tulle that formed the chief feature of the scene. Santa Clara valley, and the gardens of San Jose in particular, are so rich in blossoms of every variety that an exhibition of flowers, to do anything like justice to our floral wealth, would require the whole space of the Horticultural hall. The exhibition makes no attempt to reveal the fullness of the glory of our gardens and hillsides. There are many exotic flowers which flourish in this valley more luxuriantly than in their native lands that are not seen at all in the fair, though they are to be found in a walk along almost any street of the city. The wild flowers of the land are not exhibited at all, and only a few sprays of the pepper tree are chosen from out the mass of ornamental shrubs and trees that adorn our groves and forests. It is evident that the ladies have sought to make a beautiful fair and have used flowers as adornments only. The general effect of the hall is one of unsurpassed loveliness, and will win for the managers, Mrs. I. Newhall, Mrs. Geo. Tarleton, Mrs. S. T. Ingalls and Mrs. D. W. Burchard, the highest praise for artistic excellence of its design.

In entering the hall, the stage is the first thing which attracts the eye, and when all has been seen it is to the stage that the eye returns again with ever-increasing delight. The whole wide sweep of the proscenium is banked from the floor up with calla lilies. No lesser flowers mar the regal splendor of the parterre, which contains a thousand lilies, rising on stately stalks from out the tropical luxuriance of their dark-green leaves. The decoration was designed and executed by Mrs. G. Tarleton and Mrs. James E. West. The lilies, 956 in number, were contributed by Miss Ziegler, who resides with W. A. Z. Edwards, and they were all grown in one garden.

On the left-hand side of the hall, the booths are arranged to represent the hues of the rainbow. They are eight in number; white, which represents the union of all the colors, red, orange, yellow, green, blue, indigo and violet.

The table of "named roses" arranged with reference to harmony in color, size and effect by Wm. Beauchamp in charge, contains about 60 roses, some rare and very valuable. One vase containing the President rose, a very large double light pink and red, called forth many expressions of admiration. This was perhaps due more to the magnitude of the roses than to their superiority over the others displayed; for the Giant of Battles, Perle des Jardins, and above all the Triomphe de France, a beautiful dark pink rose of almost indescribable hues, were equally beautiful. Another table of roses, under the management of Mrs. S. T. Ingalls, contained many beautiful roses not found in the Beauchamp collection.

Near the icecream booth is a stand of flowers containing an exhibit made by James A. Clayton. If the fair had been a genuine floral exhibition this would have merited an extended notice by the variety displayed and the extraordinary size and color of the roses. The flowers are grouped artistically and simply on a large stand which they completely cover, and they form the best exhibit in the hall of what San Jose can show in the way of flowers.

There is an exhibition of marigolds that is more lustrous than a yellow sunset. The other flowers, pansies, pinks, heliotropes, violets and honeysuckle, are lost in the exuberant profusion of roses and lilies and marigolds, but when they are sought out they display a beauty not less fine and charming than their larger and more richly blooming rivals.

The exhibition of green plants is not conspicuously large, but what there is of it is excellent.

AMERICAN SOUTHDOWN ASSOCIATION.—The eighth annual meeting of the American South-down Association will be held in the Leland hotel, Springfield, Ill., on Wednesday, May 29, 1889, at 7:30 P. M. The membership being widely scattered throughout the United States and Canadas, some may perhaps find it inconvenient to attend. Communications from those unable to be present, pertaining to the work of the association and the interests of sheep-breeders generally, if addressed to the secretary in time, will be duly considered during the meeting. It will be much better, however, for all who can possibly do so, to be present.—S. E. PRATHER, Secretary, Springfield, Ill.

WM. HAM. HALL ON THE GOVERNMENT SURVEY.—The *Record-Union* of last Saturday, noticing the appointment of Wm. Ham. Hall as one of the engineers to prosecute the surveys for the Government plan of storing water in the mountains for the irrigation of arid sections of the country, remarks: "Much of the data required for the work on the western slope of the Sierra Nevada Mr. Hall has already secured, and his experience as State Engineer of California for ten years makes his services especially valuable to the Government."

Celery for Gopher-Bait.

Our old acquaintance, C. R. Paine of Craf-ton, has had remarkable success in clearing his orchard of gophers. Having observed them eating with great relish the celery growing in his garden, he made an experiment in his orange-groves, and writes to the *Citrograph* about it as follows:

"I added to the celery, cut in inch lengths, a little powdered strychnine mingled with an equal amount of sugar, because strychnine is so bitter that one is apt to give too much. I found seven places within and around the borders of the two groves where the gophers had raised a mound to mark their subterranean abodes. With a garden trowel I sunk a shaft to the main or branch runways, and put the attractive morsel where its delightful odor would quickly reach their olfactory organs. I had previously fed them raisins, potatoes, etc., which they sometimes found and ate, but the celery drew as a magnet draws the iron, and a mere fragment of it soon appeases their hunger forever. To test how small an amount would do, I fed an inch piece of celery so prepared to a live, healthy gopher which I had domiciled in a five-gallon tin can, and the sixteenth part of an inch sufficed to make his gnawing hunger cease, and so the inch would provide a large balance to attract his friends and neighbors. In every case, on a second visit, I would find no more gophers to feed, and I would have to seek new grounds when I wished to supply my rodent flock with this variety of food."

Galloway and Polled Angus.

The Interstate Galloway Company of Kansas City have 50 head of Galloway and 10 head of Polled Angus cattle at Sacramento. This herd consists of 20 bulls, the balance being cows and young stock. These cattle are from imported stock and are a fine and well-selected herd. There were about 20 head on the Fair grounds during the Capital Turf Association meeting last week, and were much admired by cattlemen. They are in charge of Mr. E. W. Crutcher, formerly president of the Live-Stock Association of Nevada, and Mr. Walter C. Weedon, formerly secretary of the Polled Angus Association of the United States. This herd is offered for sale as a herd or by the single animal at very liberal prices.

SIGNED TO HIS COST.—Manuel Rose is an illiterate farmer living in Alameda county. Some time ago one Fleming, who owed him \$60, called upon him with a paper, which he requested him to sign. Under the impression that the paper had something to do with the debt, he was induced to make his mark there-to, and several weeks later found he had signed with Fleming a note for \$389 for agricultural implements, payable to Truman, Hooker & Co. Fleming had failed meanwhile, and the payment of the note devolved upon Rose. He refused to meet the obligation, and suit was brought to recover. Justice Murasky held that Rose's illiteracy was no excuse—that if he did not know the character of the paper he was signing, it was his business to inquire, and gave judgment for the plaintiff for \$299.

ROYALTY RANCHING.—According to the *London Star*, the Prince of Wales lives the life of a regular country gentleman at Sandringham, eating the huge breakfasts of the Norfolk farmer, going in extensively for home comforts, looking after his farms and stock, and taking a keen interest in sport. It is also stated that during the past quarter-century, Queen Victoria has captured 447 agricultural prizes with stock from her Windsor farms. She takes great interest in cattle shows and is a good judge of Shorthorns and Jerseys. At Windsor, on Aber-geldie farm and at Osborne she has herds of cattle worthy a royal owner. The park at Osborne is now stocked with a picturesque herd of West Highland cattle.

SELMA.—A friend writes to correct the reference to Selma made in his article on Fresno county by our correspondent, H. G. P. The population of the town is computed to be 2000 instead of half that number, and, singularly enough, in mentioning the newspapers the *Enterprise*, a wide-awake local journal edited by C. W. Nicklin, was omitted. We are pleased to correct the statement in this respect.

THE STORY METHOD of counting ballots was followed at the Stockton city election last Tuesday and worked admirably. About 2300 votes were cast. The returns of 11 of the 12 precincts of the city were all footed up within 2½ hours, and the result in the whole city was known at 8:30—3½ hours after the polls closed.

TICKS ON LIVE-STOCK.—A correspondent of the *S. L. O. Tribune* recommends coal oil as a sure cure for ticks; but it must be put on sparingly or it will burn too much. The best way would be to saturate a cotton cloth and rub it on where the ticks are the thickest, and they will all soon disappear.

PROMPT AND RELIABLE.—From the manner Knupp & Anderson, searchers of records at Visalia, Tulare county, recently executed an order from this office, we can give them credit as above. They are also well-known real estate, loan, and insurance agents at the Government seat of their large and improving county, the firm business having been established in 1877.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

From the official report of U. S. Patents in DEWEY & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING MAY 7, 1889.

- 402,727.—HAIR CUTTER—J. W. Eisenhuth, S. F., Alameda, Cal.
- 402,816.—SASH FASTENER—Chas. H. Foster, 402,918.—FIRE-ARMS—L. W. Gay, Wardner, I. T.
- 402,836.—INSULATOR FOR ELECTRIC RAILROAD—B. Jennings, San Jose, Cal.
- 402,839.—COMBINATION TOOL—H. L. Kincaid, Stella, W. T.
- 402,761.—CAR COUPLING—J. A. Morse, Fort Bowie, A. T.
- 402,857.—WALL PROTECTOR—Robbins & Broad, Berkeley, Cal.
- 402,776.—STRAP FASTENER FOR TRUNKS—Chas. Sparks, Sacramento, Cal.
- 402,780.—ELEVATOR SAFETY DEVICE—P. B. Sullivan, Tuscarora, Nev.
- 402,632.—OILER—W. F. and C. E. Traves, Los Angeles, Cal.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

Pacific Grove by Rail.

It is officially announced that the Southern Pacific Co., Coast Division, will extend the railroad from Monterey to Pacific Grove and Carmel bay some time this season. This will be welcome news to thousands of families who make these resorts their summer residences. Already the march of improvement has been taken up, and cottages by the sea have been erected, and some elegant mansions projected to be built this summer. It is expected there will soon be an addition to Pacific Grove laid out in subdivisions and lots to meet the demand. This favored section in climate and surroundings seems to be accorded by common consent the rendezvous and sanitarium of the Pacific Coast. The Del Monte Express will be run on schedule time of one hour and ten minutes to San Jose, and three hours and ten minutes from San Francisco to Monterey. This "flyer," in connection with the attractions at Hotel Del Monte and Pacific Grove Retreat, will make this one of the popular attractions of the season for excursion and pleasure-seekers. The literary program at Pacific Grove will be more varied and extensive than at any time since it was opened, and preparations are on foot that promise a series of events during the season.

From a neat folder issued, we make the following extract:

Program of the series of summer meetings, 1889, to be held at Pacific Grove, under the auspices of the Pacific Grove Retreat Association. Rev. F. F. Jewell, Pres.; Rev. T. H. Sinex, Sec. W. C. T. U. School of Methods, June 20th-24th; State Teachers' Association, June 25th-28th; State Sunday-School Convention, June 28th-July 1st; Chautauqua Assembly, July 1st-15th; Summer Encampment, July 16th-19th; Y. M. C. A. Day, July 18th; Mid-summer Reunion, July 22d-26th; California Conference M. E. Church, Sept. 11th-16th.

Late Improvements in the Art of Taking Pictures.

The improvements in photography have enabled it to be applied to many uses for which it was formerly not available. The flash-light has made it possible to photograph tunnels and rooms where the sunlight does not penetrate. Manufacturers are using photographic views of their machinery much more than in former years. Exploring and surveying parties are fitted with photographic apparatus. All of the recently fitted men-of-war have amateur outfits on board, and the departments at Washington employ the camera for many purposes. Insurance men have taken advantage of instantaneous photography to obtain views of fires, explosions and accidents as a means of advancing their business. In fact, there is scarcely a line of business in which photography is not now used in some manner. The outlook for the future is that still further improvements will be made in the methods and the apparatus, and that the utility of photography will be greatly increased.—Richard A. Anthony in *Chicago Inter-Ocean*.

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BEEF TRUST.—At a meeting of the representatives of the American Meat Co. and the American Cattle Trust held in New York on the 18th, a contract for a term of years was signed by the controlling powers of the two organizations by which the meat company will handle the entire product of the cattle trust. Senator Dorey said that the two organizations had not been consolidated, adding: "We have effected a traffic agreement, which practically makes the American Meat Co. the agent of the American Cattle trust."

The Cook Cattle Sale.

At the auction of fine cattle from the estate of the late Seth Cook, which was held by Kil-lip & Co. at the Bay District track on Thursday, the 16th instant, 62 head were sold at prices amounting to over \$5000.

Creed Haymond bought the Shorthorn bull Astoria Durham, \$70; Polled Angus cow, Priceless, \$160; Devon bull, Brady, \$125; Galloway, Rosa of Tarbreoch, \$150; Galloway, Princess of Danville, \$120.

C. Darby bought the following Galloway cows: Blooming Nancy, \$125; Stonehouse Girl, \$100; Heather Lass, \$140.

A. Smith bought the Galloways Venus of Tarbreoch, \$140; Prairie Lass, 2d, \$145. J. H. Wise, Galloways, Pretty Judy, \$165; Queen Mab, \$145.

E. W. Newhall paid \$127.50 for Hannah, a Galloway cow.

A. J. Peck took Fairy of Skeine, a Polled Angus cow, at \$170.

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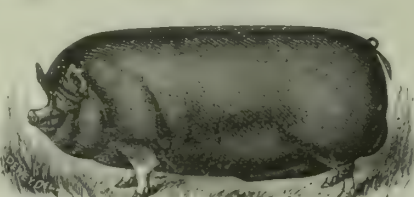
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SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with records better than 2:30, and the dams of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp. Emancipation. Third dam by Bertrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbridge, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 406, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Albion, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son Mambino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Ryadsky's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Stamboul, 2:14; Albion by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:08, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, 8th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.
Vol. 1, American C. B. S. B.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportsman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.
Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" class, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire, beating 20 others.

First dam Whalebone (355), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16½ hands high, weight 1600 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 248; he by Master George 203, by King George 100; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teesdale, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

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Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Stock Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

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Mares sent to Fashion Stables, Oakland, Benne's Stables, Martinez, or to Geary & Grindle's Stables, Hayward, will be forwarded to Farm Free of Charge.

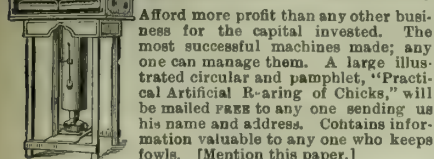
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I will sell at private sale to the highest bidder, for cash, on or after May 1, 1889, at the Ranch in Irvington, or at my office in Oakland, 946 Broadway, Alameda Co., Cal., the entire flock of Thoroughbred French Merino Sheep, consisting of 230 (Two hundred and eighty) Ewes, 79 (seventy-nine) Bucks, and 180 (one hundred and eighty) Lambs. These sheep are the get of the original flock imported by Robert Blacow of Centerville. Mr. Roberts, as foreman, having charge of the flock for several years prior to Mr. Blacow's death, after which he became the owner of the entire flock, which he has kept purely for stock purposes.
All interested in Thoroughbred Sheep should be familiar with this flock, which has become famous under the care and management of Mr. Roberts; always receiving first premiums, having been sold to Europe, South America and all parts of the United States; individual members having repeatedly sold for from \$500 (five hundred) to \$1500 (fifteen hundred) each. Sheep Men should seize this opportunity to secure some, as they must be sold to settle up the Estate. Address, JAMES STANLEY, Administrator Estate J. Roberts, Deceased, Mission San Jose, or 946 Broadway, Room 17, Oak and, Cal.

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S. H. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 22, 1889.

Continued fine growing weather has naturally had a depressing influence, so far as values are concerned, on the general produce market. The lower prices, outside of cereals and feedstuff, have invited more business. The cereal market is still under the various unfavorable influences that have been heretofore noted. Foreign cablegrams received to-day are as follows:

LIVERPOOL, May 22.—Wheat—Very dull. California spot lots, 6s 6½d to 6s 9½d; off coast, 33s 6d @ 33s 9d; just shipped, 33s 9d; nearly due, 33s 9d; cargoes off coast, very dull; on passage, very few bids in market; Mark Lane wheat, weaker; French country markets, mostly turn cheaper; weather in England, brilliant.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	May.	June.	July.	Aug.	Sept.	Oct.
Thursday.....	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16
Friday.....	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16
Saturday.....	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16
Sunday.....	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16
Tuesday.....	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16	6 11/16

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	34-61	34-61	34-61	Quiet.
Friday.....	34-61	34-61	34-61	Dull.
Saturday.....	34-61	34-61	34-61	Dull.
Sunday.....	34-61	34-61	34-61	Slow.
Tuesday.....	34-61	34-61	34-61	Inactive.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

	May.	June.	July.	Aug.
Thursday.....	82 1/2	82 1/2	82 1/2	82 1/2
Friday.....	82 1/2	82 1/2	82 1/2	82 1/2
Saturday.....	82 1/2	82 1/2	82 1/2	82 1/2
Sunday.....	82 1/2	82 1/2	82 1/2	82 1/2
Tuesday.....	82 1/2	82 1/2	82 1/2	82 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

	May.	June.	July.	Aug.
Thursday.....	82	80 1/2	79 1/2	74 1/2
Friday.....	82	80 1/2	79 1/2	74 1/2
Saturday.....	82	80 1/2	79 1/2	74 1/2
Sunday.....	82	80 1/2	79 1/2	74 1/2
Tuesday.....	82	80 1/2	79 1/2	74 1/2

NEW YORK, May 22.—Wheat—81½¢ for cash, 80½¢ for June, 81½¢ for July, 81½¢ for August and 81½¢ for September.

CHICAGO, May 22.—Wheat—81½¢ for May, 80½¢ for June, 76½¢ for July, 73½¢ for August and 73½¢ for September.

Foreign Grain Review.

LONDON, May 20.—The *Mark Lane Express*, in its review of the British grain trade for the past week, says: English wheat is dull and flour is 6d lower. Foreign wheat declined 6d. Values of oats are sustained; corn is weak. At to-day's market there was a further fall of 6d in English wheat. Foreign was also weaker. California, which sold at 35s last Monday, sold to-day at 33s 9d. Red American declined 6d. Flour dropped 6d. Corn was stronger.

Eastern Wool Markets.

Late mail advices from Boston report as follows: The market for wool is still in a quiet condition, but the statistical position is strong. All foreign markets are higher comparatively than this, while the new clip in this country, which is just being got ready for market, is also held very high. There is nothing in the situation that would indicate cheap wool, but at the same time buyers here do not seem inclined to operate, and dealers who have wool to sell do not find it an easy matter to dispose of it. The only weak point noticeable is the good situation, and there is no doubt but this is a very unsatisfactory condition. The light orders for heavy goods, owing to the mild winter, are being felt now, and it looks as though considerable machinery would have to be stopped this month.

Philadelphia mail advices report as follows: All desirable lots of wool are firmly held, and the advices received from the South and Southwest indicate increasing strength in values in the new clip districts. In Texas 20c has been paid for clips that sold last year for 16c. Kentucky wools are already well sold up, and in St. Louis the market is strong, with business in round lots reported at 25½¢ on cars. Reports from other sections show equally high prices paid for new wools, but thus far the purchases have been chiefly for interior mills. Eastern dealers are reluctant to meet the views of growers, as present prices, with freight and other expenses added, bring cost fully up to the level of this market, and in some cases a little beyond that level. It is a little early yet, however, for any general buying, and the developments of the next few weeks will be watched from this market with keen interest.

Miscellaneous.

NEW YORK, May 18.—Some handsome cherries are here. They have a small fancy retail outlet. The trading in hops is light. Owners of fancy shipping styles have refused the last top offer, but for selling purposes the market is no better than last week. Good under grades are fairly taken by brewers. Exports of the week 36 bales.

There is better demand for dry hides. Holders yielded early in the week. The market closes rather stronger; best 16c; California and Central American, 15c; others range from 10½¢ to 14½¢.

Canned peaches, \$1.80; apricots, \$1.60, for much of the large shipments on the way.

Local Markets.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday.....	64 1/2	64 1/2	64 1/2
Friday.....	64 1/2	64 1/2	64 1/2
Saturday.....	64 1/2	64 1/2	64 1/2
Sunday.....	64 1/2	64 1/2	64 1/2
Tuesday.....	64 1/2	64 1/2	64 1/2

	S. S.	B. S.	B. '89.	'89.	'89.
Thursday.....	133 1/2	133 1/2	133 1/2	133 1/2	133 1/2
Friday.....	133 1/2	133 1/2	133 1/2	133 1/2	133 1/2
Saturday.....	133 1/2	133 1/2	133 1/2	133 1/2	133 1/2
Sunday.....	133 1/2	133 1/2	133 1/2	133 1/2	133 1/2
Tuesday.....	133 1/2	133 1/2	133 1/2	133 1/2	133 1/2

—New. BAGS—The market is recovering from the effects of the death of a large holder, for at this writing it is quoted steady, with a strong tone. Spot, 7½¢; June-July, 8½¢.

BARLEY—The market for sample parcels is in a demoralized condition, which is reflected to a considerable extent by the dealings on Call in futures. To-day's sales on Call are reported as follows:

Morning Session: Buyer season—100 tons, 57½¢; 100, 58¢. Buyer 1889—100 tons, 75½¢; 100, 75½¢; 100, 75½¢; 400, 75½¢; 100, 76¢; 200, 76½¢; 400, 76½¢; 100, 76½¢. Afternoon Session: Buyer 1889—100 tons, 70½¢; 100, 70½¢; 300, 70½¢; 500, 70½¢; 100, 77¢. Buyer season—100 tons, 58½¢; 100, 58½¢.

BUTTER—The market after advancing about 2c a pound, under a good packing demand and light receipts, closes barely steady at quotations under heavy receipts.

CHEESE—It has been a long time since the market was as low as it now is. A sale of a round parcel of choice new was made the past week at 5½¢ a pound. Although we quote higher, it is safe to say that our quotations can only be reached in a jobbing way.

EGGS—The market is not quite so strong, owing to receipts increasing and demand not so free.

FLOUR—The market is very weak and in buyers' favor. Although not quotable lower, yet concessions are obtainable.

WHEAT—Never within the recollection of the writer has the market been so low and weak as it is at present, in the face of small supplies and a large engaged tonnage in port. This condition is due to the good crop prospects on this coast and a declining market abroad. To-day's private cables report the Liverpool market "weak, low and declining, with the weather favorable to growing crops." In futures, trading is light on Call, with prices still shading. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—100 tons, \$1.30½; Buyer 1889, after August 1st—200 tons, \$1.29½; 200, \$1.29½; 100, \$1.29½. Seller 1889, new—300 tons, \$1.23½. Afternoon Session: Buyer 1889—200 tons, \$1.32; 100, \$1.32½. Buyer 1889, after August 1st—100 tons, \$1.29½. Seller 1889, new—400 tons, \$1.24. Buyer season—100 tons, \$1.29.

[COMMUNICATED.]

Market Information.

Produce Receipts.

Receipts of produce at this port the week ending May 21st, were as follows:

Flour, qr. sks.....	64,321	Middlings, sks.....	5,718
Wheat, cts.....	242,013	Alfalfa, ".....	—
Barley, ".....	20,016	Chicory, ".....	100
Kye, ".....	395	Broomcorn, bds.....	237
Oats, ".....	21,170	Hops, bls.....	—
Corn, ".....	1,775	Wool, ".....	3,675
Butter, ".....	2,352	Hay, tons.....	1,996
do bxs.....	1,102	Straw, ".....	80
Cheese, cts.....	1,452	Wine, gals.....	159,866
do bxs.....	—	Brandy, ".....	4,030
Eggs, doz.....	118,120	Raisins, bxs.....	1,339
Beans, cts.....	8,202	Honey, cs.....	41
Potatoes, sks.....	17,640	Walnuts, sks.....	—
Onions, ".....	3,116	Flaxseed, sks.....	2,869
Brn. sks.....	26,343	Mustard, sks.....	2,143
Buckwheat, sks.....	—	—	—

From the *Commercial News* of May 22, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	202,281	292,975
On the way to neighboring ports.....	30,671	127,425
In port, disengaged.....	26,725	43,353
In port, engaged for wheat.....	47,050	9,989

Totals.....306,727 473,748
To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to May 21, the following are the exports from this port:

	1889.	1888.
Wheat, cts.....	11,888,918	8,132,206
Flour, bbls.....	740,511	700,617
Barley, cts.....	1,261,534	645,134

Cereals.

Crop prospects continue good. So far as known, the hot weather on last Sunday did no perceptible damage, but, on the contrary, it was beneficial in several sections. The grain is well on the way, and it is not at all improbable that new wheat will come in this year at an earlier date than we have any record of.

The wheat market has sagged to lower figures in sympathy with the demoralized market abroad. The large prospective outturn on this coast has a bearing influence, which is more pronounced in the absence of any speculative movement either at home or abroad. The bulls have, at all times in recent years, been badly worried if not financially killed; consequently there is an entire absence of any combination to advance prices, yet there is a possibility that a bull move may be inaugurated after the new season opens. For sample parcels there is not much demand, while there is very little offering. Foreign cables report a demoralized market. In futures in our market, trading is slow, with the bulk of sales reported to be cross orders, made either for the purpose of keeping the market down or else to keep outsiders from thinking that all business has forsaken the Board.

Barley has held to low figures throughout the week, under free offerings of weevily, which have been rejected and thrown on the market. The warehousemen appear anxious to clear their warehouses of all grain having weevil so as to fumigate the buildings before the new crop comes in. Receipts the past week were only fair, but light as they were, they aided to bring values still lower.

Harvesting will be commenced in several localities the coming week, and will be quite general by the forepart of June. The impression prevails that the grain will be quite plump, but off-color. At the present low prices, only those who will be compelled to sell will dispose of their new crop.

Oats are weak, under very heavy receipts and a good selling pressure. Receipts were very heavy, coming chiefly, if not entirely, from up North. Crop advices are of a uniformly good character. The consumption at the low prices is said to be good. Surprise oats still command \$1.15@1.22½, owing to light supplies.

Corn is essentially unchanged. Buyers, as usual on a dull and heavy market, confine their buying as much as possible. Receipts were only fair.

In rye and buckwheat, there is nothing new to report.

Feedstuff.

The receipts of bran were exceptionally large the past week. The demand both for export and home shows signs of increasing. Ground barley is lower, which causes more to go into consumption.

Choice to extra choice hay, with fine straw, is wanted, and for which good prices are obtainable. Coarse-strawed hay and also bleached hay are in buyers' favor. Receipts are light, while the demand is good.

Fruit.

Advices from Oregon report that the cherry crop will be light, while that of pears will be a full average, as will peaches. In this State we are in receipt of advices which are confirmatory of a light yield of cherries, pears and apricots. The wind the forepart of this month blew down large quantities of pears. Some trees were stripped almost entirely of the fruit. The yield of peaches will be a full average. Advices from the vineyards report the outlook for a good crop of the very best.

Peaches came in the past week. They were green, hard and unsalable. Canners bought apricots the past week at 35 cts. Royal apricots are coming in, but as yet they sell high. The first received fetched 20c a pound. Strawberries have a wide range, varying according to quality. Canners are still buying. Currants and gooseberries are coming in more freely, causing a lower range of values to obtain. Royal Ann cherries are coming in and selling at \$1. The market for all kinds is lower under heavy receipts. Canners are buying.

Choice, well-selected, good-keeping, smooth-skinned oranges are wanted. Rough, thick-skinned are slow of sale, as are poor keepers.

Mexican limes are weaker under free consignments. The demand is good.

Honolulu is sending us watermelons. They sold at an average of \$1.50 apiece.

Tomorrow, Thursday, the Southern Pacific Railroad reduces the rate of freight on dried prunes to Central and Eastern State points. The rates on other fruits are unchanged. This is, to say the least, a very singular move, particularly when it is understood that the reduced freight only applies to dried prunes in sacks, and not in boxes. This it appears must have been worked by the agents or branch houses in this city of firms in Chicago and other Eastern cities. Why the railroad did not reduce the rates on other dried fruits it is hard to say, unless the Chicago houses feared that by lower rates the California fruit would come in closer competition with their dried-fruit products. A carload of dried prunes, 90c and upward, in boxes, was sold the past week at 4½¢ a pound, and a carload of same grade in sacks was sold at 5c a pound. The demand for all kinds of dried fruits continues good for the season. Oregon is still sending us dried apples.

Raisins continue to meet with a good inquiry at full figures for the more choice. The supply to draw from is very light.

From January 1st to May 1st, 1889, there was shipped from here via Canadian Pacific Railroad to distributive points in the Central and Eastern States, about 180 tons of dried prunes.

It may not be out of place to state that the recent reduction in the overland rate for canned fruits was only secured by a most determined fight made by the representatives who went from here. Chicago, St. Louis and Eastern houses in general were either opposed to the reduction or else were indifferent spectators. It is stated that the Southern Pacific Railroad alone fought against the reduction. The rate on sugar to distributive points west is 65c per 100 lbs, and on canned goods \$1 per 100 lbs. From Atlantic points to the Missouri river [1600 miles] the freight is 50c per 100 pounds with differential rates according to distance from shipping point as low as 10c, or, in other words, the freight ranges from 10c to 50c per 100 lbs, according to distance carried, whereas from here to the Missouri river and all intermediate points the freight is \$1 per 100 lbs; so that the Eastern packers are favored. With higher labor on this coast, higher prices for tin, etc., our fruit-packers and growers have a hard enough time without our home railroad fighting them.

Live-Stock.

The market for bullocks and mutton sheep continues in buyers' favor. The warm weather is against retail butchers carrying much in their stalls. The quality of the meat continues good. For calves and lambs the market is unchanged. Hogs are still weak, with packers not operating. It is claimed that the low price of grain will cause a very general fattening of hogs for this market. Milch cows are unchanged, as are horses. There appears to be a better inquiry for driving horses, matched teams and general utility horses.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, grain fed, 5½¢@6¢ lb.; dressed, 8½¢@9¢ lb.; soft, 5½¢@5½¢ lb.; dressed, 8¢@9¢ lb. Stock hogs, 5¢@6¢ lb.

BEEF—Stall fed, 6¢@6½¢ lb.; grass fed, extra 5½¢@6¢ lb.; first quality, 5½¢@5½¢ lb.; second quality 4½¢@5¢ lb.; third quality, 4¢@4½¢ lb.; bulls and thin cows, 2¢@3¢ lb.

VEAL—Small, 7¢@8¢ lb.; large, 6¢@7¢. MUTTON—Wethers, 5¢@5½¢ lb.; ewes, 4½¢@5½¢ lb.; lamb, spring, 6¢@8¢ lb.

Vegetables.

Onions have fluctuated some. The better keepers were wanted for shipping.

New potatoes have held fairly steady, notwithstanding free receipts. There was a good call for

the more-matured, good keepers. Old potatoes are slow of sale, and as quotations are more or less nominal, they are withdrawn.

The hot weather on last Sunday caused the asparagus received on Monday to be poor, necessitating concessions. Since then the quality has been good.

String beans and peas fluctuate from day to day, being governed by the wants of buyers more than by anything else. The quality continues good.

The first tomatoes of the season from Vacaville were received on Monday. They were placed at \$2.50 a box. The crop this year, it is said, will be large.

The green corn received continues poor, with a wide range in prices reported.

Summer squash and cucumbers are falling.

Wool.

Receipts are only fair from points in this State, but from Oregon they are increasing. The market is not as buoyant as was expected by many it would be if the present political party got into power at Washington. Considering the improved grade of the wool over last year, the prices now paid are not as high as at this time in 1888. The shutting down of the Pioneer woolen-mills in this city will lessen the consumption of raw wool very materially. Buyers are trying very hard to keep prices down, but holders of choice clips do not appear disposed, as yet, to accept the low bids. Many sales are made P. T., which gives color to the report that buyers pay an advance over bids.

Miscellaneous.

Under free receipts and a lessened demand, poultry is weak at lower prices.

Beans are weak, notwithstanding the light receipts. Crop prospects continue of the most favorable character.

Honey and beeswax are still in buyers' favor. The receipts of new are not of sufficient moment to justify quoting.

Mustard seed, flaxseed, alfalfa and grass seed are slow.

Among the shipments from Jan. 1, 1889, to May 1, 1889, from this port via the Canadian Pacific railroad are the following: One hundred and forty-four tons barley, 11 tons hops, 25 tons beans, 180 tons dried prunes, 955 tons wool, 7154 gals. wine, 2929 gals. brandy.

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations. WEDNESDAY, May 22, 1889.

BEANS AND PEAS.		California, 1887.	6 @ 12
Bayo, cts.....	2 30 @ 2 50	do 1888.	14 @ 18
Butter.....	2 50 @ 2 80	ONIONS.	
Peas.....	1 50 @ 1 80	New.....	50 @ 1 00
Red.....	2 35 @ 2 75	NUTS JOBBING.	
Pink.....	2 10 @ 2 35	Walnuts, Cal. lb.....	5 @ 8
Large White.....	1 50 @ 1 80	do Chile.....	7 @ 10
Small White.....	1 50 @ 1 80	Almonds, bds. shd.....	5 @ 10
Lima.....	4 25 @ 4 50	Softshell.....	9 @ 10
Flour.....	—	Paper shell.....	12 @ 13
do green.....	4 00 @ —	Brazil.....	8 @ 9
do Niles.....	—	Pecans.....	7 1/2 @ 12 1/2
BRANDY.		—	—
South'n Brandy.....	70 @ 75	Philberts.....	10 @ 12
Northern.....	65 @ 70	Hickory.....	5 @ 8
CHICORY.		POTATOES.	
California.....	6 @ 6 1/2	Early Rose.....	1 00 @ 1 25
German.....	6 1/2 @ 7	Chile.....	—
DAIRY PRODUCE, ETC.		ONIONS.	
Butter.....		—	
Cal. Poor to fair, lb.....	14 1/2	River Reds.....	—
do good to choice.....	15 @ 18	Burlingtons.....	—
do Fancy brands.....	19 @ 20	Cuffey Cove.....	—
do picked.....	15 @ 17	Sweet.....	—
Eastern in tubs.....	11 @ 16	Tonawandas.....	—
do in rolls.....	—	—	—
EGGS.		QUILTS AND GAMF.	
Cal. new, choice.....	7 @ 8	Hens, doz.....	5 50 @ 6 50
do old.....	—	Roosters, old.....	5 30 @ 6 00
do fair to good.....	—	do young.....	7 00 @ 10 00
new.....	5 @ 6	Broilers.....	2 50 @ 7 00
EGGS.		DUCKS.	
Cal. ranch, doz.....	20 @ 22 1/2	Ducks, tame.....	5 00 @ 5 50
do store.....	17 @ 20	do wild.....	1 50 @ 1 75
Eastern, limed.....	—	do Goslings.....	1 50 @ 2 00
Eastern, fresh.....	15 @ 17	Turkeys, Gobbs.....	15 @ 17
FEED.		TURKEYS.	
Bran, ton.....	12 @ 13 00	Rabbits, doz.....	1 25 @ —
Peanut meal.....	10 @ 12 00	Hare.....	1 25 @ 1 50
Gr'd Barley.....	14 50 @ 15 00	EGG FOOD.	
Middlings.....	14 00 @ 16 00	Manhattan, lb.....	12 @ —
Oil Cake Meal.....	30 00 @ —	Cal. Bacon.....	—
Manhattan Food.....	7 50 @ —	Heavy, lb.....	11 @ —
HAY.		Medium.....	11 @ —
Compressed.....	8 00 @ 12 50	Light.....	13 @ —
Wheat, per ton.....	7 00 @ 23 50	Extra Light.....	13 @ —
Wheat and Oats.....	8 00 @ 21 50	Lard.....	9 @ 12 1/2
Wild Oats.....	8 00 @ 21 50	Cal. Sm'd Beef.....	11 @ 12
Clover.....	5 00 @ 10 00	Hams, Cal.....	12 @ 13
Barley.....	5 50 @ 9 00	do Eastern.....	12 @ 14
Barley and Oats.....	6 50 @ 9 00	SLEDGES.	
Alfalfa.....	6 00 @ 8 25	Alfalfa.....	12 @ 13
Stock Hay.....	4 00 @ 6 00	Canary.....	3 1/2 @ 4
Alfalfa Compr'd.....	7 00 @ 8 50	Clover, Red.....	12 @ 13
Straw bale.....	65 @ 80	White.....	20 @ 22
FLU.		Cotton.....	20 @ 22
Extra, City Mills.....	4 35 @ 4 70	Hemp.....	3 1/2 @ 4
do Co'try Mills.....	4 00 @ 4 45	Italian Rye Grass.....	10 @ 11
Superfine.....	2 75 @ 3 25	Perennial.....	7 @ 9
GRAIN, ETC.		Millet, German.....	5 @ 6 1/2
Barley, feed, cal.....	85 @ 92 1/2	do Common.....	5 @ 6
do do.....	80 @ 89	Medium yellow.....	16 @ 18
do do Choice.....	85 @ 95	do Brown.....	2 1/2 @ 3
Chevalier cace.....	—	Rape.....	1 1/2 @ 3
do com to good.....	—	Ky. Blue Grass.....	14 @ 16
Buckwheat.....	3 00 @ 3 25	2d quality.....	13 @ 14
Corn, White.....	1 00 @ 1 12 1/2	Sw V. Grass.....	75 @ —
Yellow.....	1 00 @ 1 12 1/2	Hunter.....	14 @ 16
Oats, milling.....	05 @ 1 17 1/2	Lard.....	27 @ 30
Choice feed.....	98 1/2 @ 1 02 1/2	Mesquit.....	6 @ —
do good.....	85 @ 97 1/2	Timothy.....	6 1/2 @ —
do fair.....	90 @ —	TALLOW.	
do Gray.....	1 20 @ 1 30	Crude, lb.....	3 @ 5
Rye, milling.....	—	Refined.....	6 @ —
Wool, etc.		WOOL, ETC.	
Gilt edged.....	1 32 1/2 @ 1 33 1/2	SPRING—1889.	
do Choice.....	1 31 1/2 @ —	Humboldt.....	— @ —
do fair to good.....	1 30 @ 1 35	Mendocino.....	— @ —
Shipping, cho'ce.....	1 30 @ —	Sac'to valley.....	15 @ 22
do good.....	1 28 @ —	Free Mountain.....	— @ —
do fair.....	1 21 @ 1 31 1/2	S Joaquin valley.....	12 1/2 @ 17
HIDES.		do mountain.....	17 @ 20
Dry.....	11 @ —	Cala & F.V.I.....	35 @ 40
Salted.....	5 @ —	Oregon Eastern.....	13 @ 22
HORSES.		do valley.....	— @ —
Oregon, 1887.....	6 @ 12	So'n Coast, dec.....	11 @ 14
do 1888.....	14 @ 18	So'n Coast, free.....	13 @ 18

Rattlesnakes.

One of the younger scholars of the Russ school, in San Diego, named Sadie Marigold, recently distinguished herself by killing a rattlesnake, which she very nearly stepped on, in the school-yard. The reptile was already coiled and ready to strike when the child discovered it. Her presence of mind in putting an end to its poisonous existence in all probability saved some of the numerous children at play in the yard at the time from being bitten. One of the boys of the same school killed one of the same species only a few days previously.

Another "rattler" was killed about the same time by a laborer on the Cajon Valley ranch. He had opened a gopher-hole which happened to be occupied by the snake. Unknown to himself he cut the reptile in two with the point of his shovel. Finding a rook in his way, the man reached his hand into the excavation and was bitten just below the knuckles by the forward half of the reptile. Immediate doses of whisky were taken, and though the hand and arm swelled to twice their natural size, the remedy was efficacious.

Appropos to the above, it is stated that a fine pointer on Hennagin's ranch, near Woodland, stirred up a large rattlesnake about two weeks since. He attacked and killed it after a savage fight. As soon as the snake was dead, the dog ran to a shallow mud-hole, buried himself for several hours and came out all right. Perhaps the instinct of the dog may be a good "pointer" to man. It is possible that a mud bath may be better than whisky in such cases, but then the latter is more convenient and tasteful—to some.

THE CUBAN FIRE-FLY.—A most interesting experiment has recently been made in taking a photograph by the light of the Cuban fire-fly. The species of this insect belonging to the United States are well known, but its light-producing powers are very feeble compared with those of its relatives, the lantern-flies or cucuyos of Cuba, Brazil and Mexico. It is said that persons traveling by night in the tropical forest are accustomed to place these fire beetles on their boats to light the way, and that Cuban ladies mount the cucuyos as gems for their hair and clothing. A living specimen of these tropical insects was recently presented to the Bridgeport Scientific Society. It is about an inch and a half long and bears upon each side of its body oval spots resembling eyes. In the dark these spots emit a greenish light resembling that of tiny electric lamps in full glow. If the cucuyo is placed on a watch dial its light will enable one to tell the time of night, and it also clearly illuminates a small printed page. Its radiance seems to be in a measure under the control of the will, for, when a gas jet is rapidly turned on and off, the insect, whether from rivalry or some other motive, is sure to do his best. After various trials of the insect's power, the experiment of photographing by its light was successfully carried out. A copy of a family portrait was made, the insect being held within an inch of the original and in such a way that the rays fell perpendicularly on the negative. The time of exposure to bug light was about 30 seconds.—*Scientific American*.

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THE GOAT.—Col. Daniel of Talbotton, Ga., says that goats are spunky animals. He says that his father had a flock of goats, and that the goats while grazing came to a pond of clear water. They went to the pond to drink, and when they lowered their heads they saw their shadows in the water. They began to butt at the goats in the water, and failing to drive them away they continued to butt until the entire flock was drowned.

A NEW DEPARTURE IN LEGISLATION.—A recently enacted law in the State of Maine provides that "whoever by intimidation or force, alone or in combination with others, prevents a person, journeyman, or apprentice from continuing or entering into the employment of a person, firm, or corporation, shall be punished by imprisonment not more than two years, or by a fine not to exceed \$500."

Rheumatism



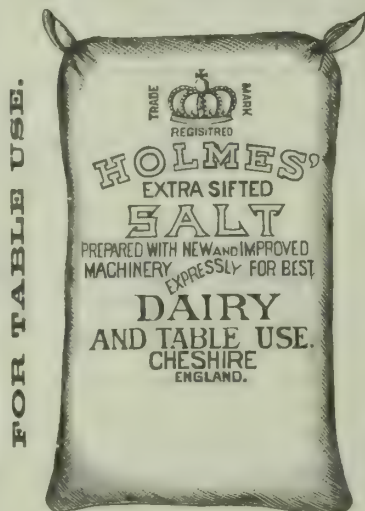
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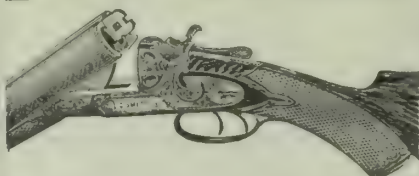
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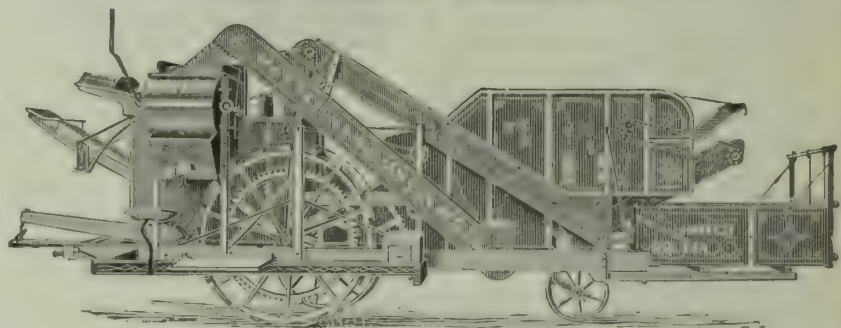
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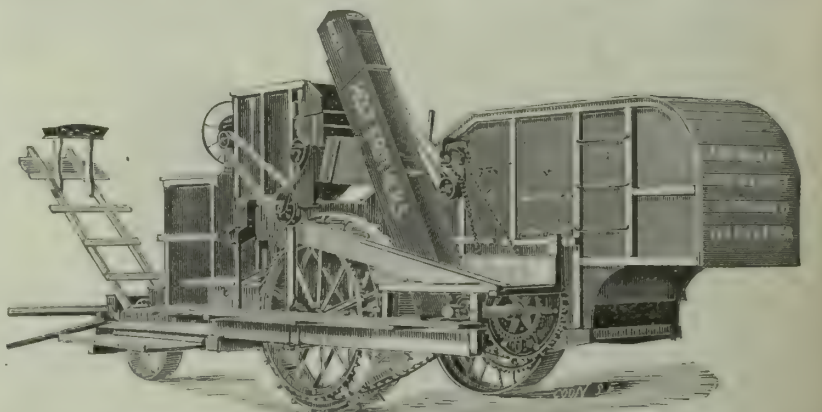
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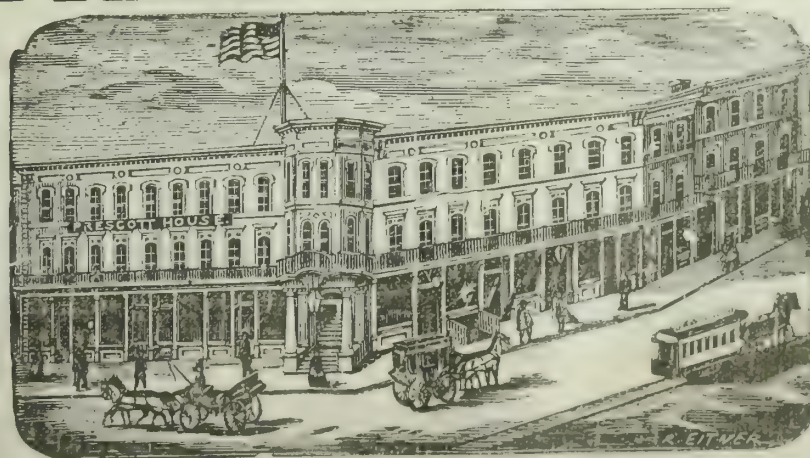
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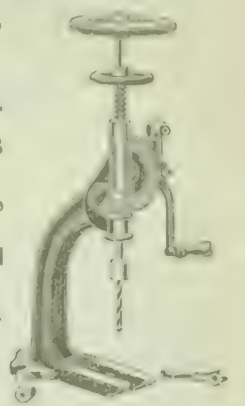
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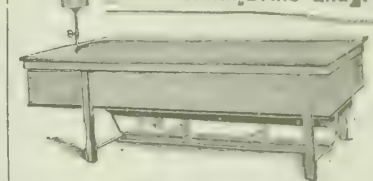
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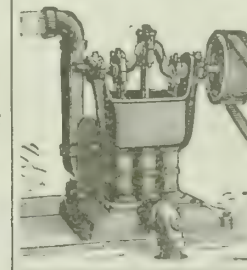
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IMPORTANT ANNOUNCEMENT.

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F. S. DOUTY, Secy. P. I. Co.

San Francisco, May 1st, 1889.

PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXVII.—No. 22.

SAN FRANCISCO, SATURDAY, JUNE 1, 1889.

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A Kern County Residence.

From the Shasta county scenes portrayed on our first page last week, we turn now to a view in Kern county. Shasta county and Kern county are at opposite ends of the great interior valley of California and are about 300 miles apart. Our engraving represents a scene on the

irregularly shaped area of four miles in its greatest width and eight miles in its greatest length. The spot shown in the engraving is about eight miles southwest of Bakersfield.

CALIFORNIA RAISINS ABROAD.—A cable dispatch from London says: Col. Forsyth, one of

THE GOVERNMENT AND THE BIG TREES.—The Commissioner of the General Land Office in Washington has received a letter from the Register of the Land Office at Visalia saying that certain tracts containing the big trees which the Government had withdrawn from settlement in order to make a reservation had been pre-empted by certain parties claiming

WOOL SALE AT UKIAH.—Charles Thorn, Jr., general freight agent of the S. F. & N. P. R. Co., has been conferring by letter with the wool-growers of Lake, Mendocino, and Humboldt counties, and learns from a majority of his correspondents that their wools will be in Ukiah at dates ranging from June 1st to 10th. He accordingly invites producers and buyers to



COTTAGE AND LAWN ON BELLEVUE RANCH IN KERN COUNTY, CALIFORNIA.

Bellevue ranch, the cottage and its environment of locust trees intermingled with palms and other growths. The grounds are well maintained, and with their shade trees and greensward on which are the chairs, writing table, etc., give the beholder some idea of the delights of open-air life in California. The Bellevue cottage is one of our larger rural residences, as the ground floor is about 50x100 feet, and it has also an annex cottage of considerable dimensions, a conservatory, etc., besides the office and various other ranch buildings—shops of all kinds, warehouses, barns, stables, etc., as required in the conduct of a splendid property of 13,500 acres, covering an

the leading raisin-producers of the United States, who has just returned from an inspection trip to the raisin-growing districts of the Continent, says American raisins, in addition to supplying the American market, are destined soon to take a large share of the London business. He says the phylloxera is constantly diminishing the crops of Spain in an increasing degree, and even if they should now get a remedy, which is not probable, it will be five years before the Malaga district can recover its former position. A heavy consignment of California raisins has been disposed of in London this season, being the first shipment of the kind on record.

settlement previous to the Government's order of reservation. The Register stated that he had refused to receive the filings. It is quite probable that Congress will be asked to make a public park of certain sections of the redwood tracts so as to preserve the trees as curiosities.

A RUSSIAN INVESTIGATOR.—Baron Ranner recently visited California and Colorado to gain information concerning our agricultural methods and machinery for the use of the Russians on arid lands recently acquired by the Czar in Asia. The baron passed some time at the University Experiment Station in pursuit of his inquiry.

meet in Ukiah on the 15th of June, and it is expected that all having wool to sell will have it there at that time without further notice.

MUIR, NOT MORRIS WHITE.—J. R. Springer writes in correction of the quotation which we made last week from the Woodland Democrat, that the Muir and not the Morris White is the peach which has the crop this year. The Muir, he says, takes no back seat in the way of heavy and regular bearing.

OLEO PROHIBITION.—Gov. Buckley of Conn., last week, vetoed the bill prohibiting the manufacture and sale of oleomargarine. The House passed the bill over his veto.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

From Sea to Sea.

EDITORS PRESS:—One "longing, lingering look behind," and then, as we swept round a curve, the friendly faces and waving hands disappeared from view. A little while, and the green slopes of our dear old Berkeley hills had vanished, and we leaned back and tried to feel becomingly pensive, in which attempt I, at least, failed signally. Who could be sad, anyway, with a continent unfolding before them and the fever of travel in one's veins?

On we sped, the train swaying and careering along like some wild creature just let loose from bondage; on through the freshness and verdure of a California April, until night closed in upon us.

A little later, and then (ah, romance!) the picturesque process of "going to roost," as somebody called it! Unlucky I was doomed to an upper berth, and finally tumbled into it, a promiscuous heap. But the idea of going to sleep, ridiculous! Safely ensconced behind my curtains, I thoroughly enjoyed my neighbors' misdirected efforts at climbing, and the prolonged ohs! which announced another head or elbow cracked.

Calm at last brooded over the scene. The man who would insist upon talking was silenced; the children were tired of play; the porter rested from his labors, and only the snort and gallop of the train were audible. Whizzing along through the blackness, I gave loose rein to my imagination, and at last fell asleep and dreamed of home.

Next morning, the white lights flashing through the car windows woke me, and I lay and watched the snow as it showed for a moment through the crevices of the sheds.

Next in order was the getting up (or rather down), the gradual evolution from first boot-tip to the grand final jump, as the butterfly (?) emerged from its chrysalis. I watched this till I was tired, and then did it myself.

All that day and the next we were choked and parched with the dust from arid, sandy plains, the monotony only varied by stops at little, treeless, so-called towns. On these occasions there was a dash made for the door, and generally a brisk promenade in front of the depot, while some giddy members of the party surreptitiously snatched pieces of ice from the trucks as they passed.

Utah was abominable. No scenery except some bare ranges of mountains and a few ugly red houses with two front doors just alike—supposed to belong to a man with two wives!

"Sherman!" shouted the conductor, and off we hurried to get a memento of the summit of the Rocky mountains. The air was very much rarefied here, and one's breathing much quicker than ordinary. Both the ascent and descent to and from the summit are so gradual that one does not realize in the least the height attained.

Cheyenne is a thrifty looking place, and possesses a very handsome stone depot building. Only a few minutes' stop, however, and away we go southward toward Denver.

Here, six hours' breathing-space being allotted, we "do up" the city in most approved style, with two immense omnibuses, four white horses apiece, etc. It is in truth a beautiful place, with fine public buildings, graceful churches, clean streets, electric street-car lamps, and above all, such solid, well-to-do looking houses. To one accustomed to wooden dwellings it was refreshing to drive through streets, streets of red brick houses, some of them with trimmings of black, while others were plainer.

The trees are a great attraction also. They were beautiful, just budding, and in summer-time must be lovely. There was a law formerly, compelling all land-owners to set out trees in front of their lots. Whether it is still in force, I know not, but at any rate, the city is abundantly supplied with foliage. From the top of the Nob hill of Denver we caught glimpses of Pike's peak far away in the distance, suggesting memories of H. H. and her writings.

But I must not forget the magnificent Denver High School building. Occupying the whole of a large block, with four massive entrances, brick and stone seem to have vied with one another in giving it every possible attraction.

Upon the streets of the city there was no such showiness of dress as characterizes a San Francisco thoroughfare, neither did one see the number of pretty faces so common in California. Yes, really, Denver is first-rate considering it isn't in California.

"All aboard" at last, and off again over the rolling prairies of Colorado and Kansas. At Kansas City we crossed the broad expanse of the Missouri, and had a fine view up and down the river. Missouri itself is a charming country; the woods were fairly ablaze with the vivid spring verdure.

I would describe the crossing of the Father of Waters, but unfortunately was asleep and unconscious of it all.

Northeastly, across grain growing Illinois, and lo! Chicago surrounds us, while matchless Lake Michigan lies blue and reposeful.

We've come a good way—
I'm tired, aren't you?
Let's stay here till May,
And centennial's through!

SADIE M. HARDY.
Rockville, Conn., May 8, 1889.

Northern Counties of California.

EDITORS PRESS:—The seven northern counties of the State of California are comprised and included in that area situated between the parallels of 40° and 42° north latitude and 120° and 124° 30' west longitude. Del Norte, Siskiyou and Modoc, the northern tier, form the northern boundary of the State, while Humboldt, Trinity, Shasta and Lassen adjoin on the south. For facts concerning the topographical features of this broken and mountainous region, the writer is indebted to J. W. Powell, Director of the United States Geological Survey for the California Shasta Sheet of his official map made by members of his staff in 1883 and 1885.

In no other portion of California can be so well seen the stupendous effects and powerful influences of the pent-up force of dynamic agencies that have been generated in Nature's laboratory as in this region.

This whole section has been tossed, torn and dislocated by irresistible and invisible forces. The strike or trend of the stratified rocks, as well as their central core, has been changed from west of north to north 20 east as if swung on a pivot. The main axis of the mountain range with its central granitic core has not only been metamorphosed by chemical action, but as stated, changed its position and been thrown into confusion with no order or system.

From Mt. Shasta, which evidently was the focus of the disturbance, subordinate ranges and spurs of ranges radiate in every direction, with isolated peaks and buttes of greater or lesser proportions indiscriminately thrown up like bubbles of gas in a seething caldron. Old river channels were obliterated and new rivers formed. The eccentric course of the river now known as the Klamath, in its efforts to find an outlet to the sea, was due to this cause. Its tortuous and snake-like windings is a fair illustration of this chaotic confusion, this cabalysm of events.

The long-pent-up powerful gases that produced these effects finally found an outlet in Mt. Shasta and her subordinate volcanic vents which belched forth torrents of molten rocks, lava, scoria, etc., not only building for themselves isolated mountains of no mean proportions formed of eruptive matter, but covering the surrounding country to great depths, filling beds of extensive lakes and basin-shaped depressions forming plateaus or table-lands of immense extent. The overflowing molten current passing onward in a southerly direction followed the course of and filled the channels and troughs of the then existing system of Pliocene rivers and hermetically sealed their auriferous contents for the use of unborn nations, overflowing their banks and surrounding ridges, covering verdant plains teeming with the vegetation of the tropical clime, and destroying all animal life in the morasses, lagunas and rivers that had not been dried up or evaporated by the advancing flood of the fiery molten stream.

Abundant evidence that this was the case is seen in the numerous remains of the mammoth, mastodon, the horse and other species which are found in the gravelly beds of these Pliocene channels and the surrounding bogs and morasses of this region. It is also possible that Pliocene man may have existed during this Tertiary or early Quaternary period and lived in these ancient streams.

This period was followed by oscillations of the earth's crust. Alternate elevations and depressions occurred, producing great changes in the physical geography of our continent—as well as climatic changes—from a tropical clime to the temperate, followed by the glacial period, when an icy sheet covered the whole Western Continent, of which there is abundant evidence in glacial marks that have scored and furrowed the surface of the rocky formation. Previous to this period, however, the Sierra Nevada range of mountains had assumed shape, form and proportions with its granite core, flanked by the metamorphic slates that form our present metalliferous domain.

At a still later period the coast range of mountains raised its head above the ocean (anterior, however, to the volcanic changes) with its sandstones, shales and slates of the cretaceous and tertiary formation forming the easterly bank and shore line of an arm of an inland sea that extended at least as far north between the two ranges as Shasta Basin, and possibly into Oregon, the recipient of the waters of a river equal if not superior in size to the Columbia, possibly the Columbia itself. That this theory is tenable is evidenced by both the flora and fauna of this region, and by the remains of a system of ancient rivers that flowed from the north southerly through Washington Territory, Oregon and California. This system spanned a width of nearly 40 miles, situated on the high peaks and table-lands of these northern regions at elevations of from 4000 to 6000 feet. In places it is lava-capped; at others their trough or channel with inclosed gravel are exposed where cut by bisecting modern streams that course at right angles with the Pliocene system.

J. H. CROSSMAN.

THE LATEST USE OF PHOTOGRAPHY is to make a cannon-ball take a picture of its own wabblings. An arrangement something like a camera is placed in the forward end of the projectile, and when it is fired directly at the sun, the light traces lines upon the sensitive plate, from the direction of which it can be told whether the projectile has kept in one position or has wavered to and fro during its flight. The scheme is largely theoretical as yet.

HORTICULTURE.

Unprincipled Fruit Packing.

An essay entitled "Unprincipled Packing," by Leonard Coates, of Napa, was read by Assistant Secretary Rice at the National City Convention, as follows:

Mr. President and members of the Convention: The object of this article is to call attention to the vital principle which lies at the bottom of marketing successfully our fruit products. This principle, in a word, is honesty, with which should be closely allied good judgment.

It is not my purpose to deal with the strictly moral side of the question, other than to endeavor to show that at least in this business "Honesty is the best policy." Nor can I assert, by implication or otherwise, that those who hold contrary views are necessarily dishonest, though they must be classed among those who make grave errors of judgment.

These remarks are also made upon the assumption which few can question, that every fruit grower is apt to think his own fruit, and his own methods of putting it upon the market, are as good, and generally better, than that of every other grower.

My experience in buying sample boxes of various kinds of dried fruits of the very finest brands obtainable, is evidence enough to convince me that we are building up a reputation of unreliability.

It is useless in this paper to mention names and localities. Suffice it to say that in my allusions I refer to leading and well-known growers and dealers. I would, however, add that it is the duty of such bodies as the California Fruit Union and the California Dried-Fruit Association to publish cases of persistent fraud, giving the full name, and the stockholders should demand some such action as a protective measure to themselves.

The "hand-to-mouth" policy of the aborigine or of the natural-born "bummer" is a failure, whether applied to the Digger Indian or the fruit-grower of California. We ostensibly sell our fruits in order to sell them again, and extend our business; in reality we sell them where they cannot be sold again, and every year we depend on a new batch of hungry customers as our market.

Fruit labeled "extra evaporated" is almost invariably, to speak the truth, "medium sun-dried," and the manager of the Dried Fruit Association will tell you that it never sells more than one season as indicated by the false label.

Pray, what becomes of the "medium" and "second" and "third" class grades of dried fruits? I have not seen a box which was not labeled "choice" or "extra."

Why is the term "evaporated" applied to nearly all sun-dried fruits, when the public has been taught to believe that "evaporated" means machine-dried, and buys it as such?

The packer will tell you that his sun-dried fruit is better than machine-dried, and that he is committing no crime upon the public in marking it "evaporated." Certainly machine-dried fruits are very different, and it is a fraud upon both the public and those who dry by artificial heat to steal the name and apply it to sun-dried fruits. Machine-dried fruit must be better, because it is cleaner, and too much sulphur is not so likely to be used, little, if any, being necessary. It costs much more, and can only be produced in comparatively small quantities; at any rate as long as it has to compete with "evaporated" fruit dried in the sun.

What do I find on opening boxes of these "extra evaporated" fruits? In the center of the box, third and fourth grade fruit, rubbish, straw, dirt, pits and worms, in varying proportions. Would I, as an average consumer, buy a second box of this fruit, think you? Would any one?

Again, fruit dried in the sun is apt to get wormy, and in order to counteract this it is the custom to scald it before packing, to kill the eggs. This scalding process has been very generally resorted to in the great zeal evinced to prevent the public having to take meat with their fruit; and some even forget to heat the water, but turn the hose upon the fruit as it lays in piles upon the ground, packing it before it is dry, to increase the weight, some being so soaked that the water oozes out of the boxes afterward. This has been seen by a member of a prominent San Francisco firm, who related it to me in the presence of a gentleman well known, and probably present at this convention. He also asserted, and he was in a position to know, that many tons of fruit thus "scalded" (?) were rotting in boxes in Chicago to-day.

On the same general grounds taken in this paper I would condemn the indiscriminate use of sulphur, and would go further, and say its use should be discontinued altogether. It is only a question of educating the public, which now buys light-colored fruit because it thinks it, only, is clean. Let it be known that the lighter the fruit the more it is charged with sulphur and the less fruity flavor is possessed, and it will not long be in demand. This could easily be done by labeling the fruit properly, somewhat after A. L. Bancroft's plan, calling attention to its properties, directions for using, etc., and with the assistance of the press.

An instance of a pack of fruit thus treated, and a neat label being printed and pasted on every box, has come within my own experience, the results being flattering in the extreme, and a gentleman, Rev. A. T. Perkins of Alameda, at a recent State Horticultural Society meet-

ing, gave his own similar experience, where his fruit sold much higher, and complimentary letters were being constantly received regarding it.

Among my collection of "extra" samples are "Silver prunes," most beautiful to look at, but wet and sticky with some foreign "dip," and the taste most vile, causing all who eat them to be sick. A strong sulphur flavor is left on the tongue, and the rich, fruity flavor is entirely gone. This crop is sold at 17½ cents per pound, but who will ever buy a second box?

Rather every purchaser will feel it his duty to warn his friends against purchasing such unwholesome food, and be victims to such a contemptible fraud.

The principle at the bottom of this sulphur business is rotten, and the practice is a fraud on the public. No man wants his family to be dosed sulphur every year unless under medical advice. And who would willingly take lye into his stomach or prescribe it for his wife and children?

Do the fine grades of imported prunes ever show any signs of having had their skins "out" with lye?

Theoretically, the prune is dipped in lye to "cut" the skin that it may dry quicker, and then be immediately rinsed in cold, clean water to wash off every particle of lye. And what a lie this is, every one who has been there well knows; the cold rinsing water is often nearly as much impregnated with lye as the solution itself, for it is rarely changed.

And so, in "our hurry to be rich" we are not "innocent," and it remains for those who are alike actuated by a belief in the old saying, "honesty is the best policy," and a higher sense of true principle to use their influence in the fruit associations, and also toward more stringent legislation on the general subject of food adulterations.

[Mr. Coates takes rather an advanced position in some respects, for example, to abandon the use of sulphur at present would be to sacrifice a good part of the market value of the fruit. His appeals for care and cleanliness and honesty should be heeded.—EDS. PRESS.]

The Loquat.

Concerning this little-known fruit, J. H. Kellom read the following interesting paper at the Fruit-growers' Convention at National City:

The loquat is commonly known by the misnomer, "Japan plum." The Kelsey Japan plum differs from the loquat, and the true Japanese plums are entirely different. At a late meeting of the Florida Nurserymen's Association it was voted that the Eriobotrya Japonica be known as the loquat, and the Kelsey Japan plum simply as the Kelsey plum.

The loquat was introduced into London from Japan about 100 years ago. It came directly from Japan to California. It is a beautiful evergreen, growing to the height of 25 and 30 feet. The leaves are large, eight or 12 inches in length, undulated, thick and shiny, and dropping freely at certain seasons of the year. The blossoms are produced in umbels or spikes at the end of the branches; are small, white and unobtrusive. The fruit ripens from the 1st of March to the 1st of May, and but for the birds would remain sound on the tree until the 4th of July. The fruit is yellow, plum-like, elongated in shape, from one and a quarter to two inches long, and containing from one to three stones or pits. It has a peculiar pleasant, acid taste, combining the flavor of the tamarind and pineapple.

So agreeable and mild is the acid taste, the eater only wishes the seeds were less in number and size.

We are told by ex-Commissioner Colman that the loquat is extensively cultivated in Lower Louisiana. The fruit is marketed in strawberry baskets, and brings fancy prices. For the years 1886 and 1887 the crop was light, owing to late and severe frosts. Orchards of loquats may be seen in Florida. One near Jacksonville was said, a few years ago, to have brought in more cash per acre than any other piece of land used for agricultural purposes in the State.

This tree is grown from seeds, which germinate slowly but readily, if planted while fresh. "It is also grown from layers and cuttings, and can be grafted and budded on the quince and hawthorns, which are closely related trees."

The loquat is not known as an orchard tree in California, and the single purpose of this brief paper is to call the attention of Southern California, and of all the "Northern Citrus Belts," to the value of loquats planted in orchards. I am told it is perfectly hardy in the coast region, from Marin county southward, but, blooming in the coldest season, it is not apt to set fruit excepting in comparatively frost-free localities.

James Shinn of Niles, Alameda county, has a number of trees of about 15 years old which produce from 25 to 30 pounds each every year, and the fruit finds a ready sale. But the great value of the fruit consists, not in eating the fruit from the tree, but in converting it into jelly. So far as my investigation and reading have proceeded, I find no mention of the conversion of the loquat into jelly. We have plenty of fruits that will make plenty of jelly; but in my estimation there is no jelly that combines all the points that go to please the taste, comparable to the loquat jelly.

I have but two trees, standing on opposite

sides of the walk passing from the front door to the street. They are 10 years old, 12 feet high, and would have been 15 feet or more but for cutting back, white with blossoms in January, and yellow with fruit from March on. Strangers invariably notice their beautiful foliage and early blossoms, and ask what the fruit is good for.

Hitherto, my reply has been, to feed mocking-birds and linnets, and, after them, ourselves, with the first fruit of the season.

The earliest pear and peach are composed mostly of water, and are eaten and relished just because they are early. But the loquat, two months before the earliest peach or pear, contains a juice more delicious than that found in other fruits.

For two years past my cook has placed on the table loquat sauce and pies with about one-half apple. But at my suggestion, a few weeks since, she tried to jelly the fruit, and those who sampled it exclaimed, "Eureka!" Guava, the queen of jellies, must abdicate in favor of her majesty, the loquat.

If our opinion of the merits of this jelly be confirmed by the experiments of others, may we not have, in time, a new industry, stimulating the planting of loquat orchards, thus giving employment to many and enjoyment to thousands.

Ashes for Curl Leaf.

EDITORS PRESS:—At A. W. Dunton's, Upper Lake, we saw an experiment that may be worthy of notice, now that this malady is creating such wide-spread disaster. Mr. D. had read in the State Horticultural report directions for battling the borer. As his eyes were poor, he did not try to cut the borers from the trees, and as he had no slacked lime he put a quart or two of ashes around each tree. Now his trees are showing hopeful signs of recovery, and he announced that the insect at the root was the cause, and ashes the cure, of the curl leaf. Every orchardist knows that the borer has enough to answer for without this new crime; but still, the ashes may have had something to do with the improvement in the trees. Who has more light on this subject? It looks as if peaches would be very scarce in Lake county this year. Plums and prunes promise well.

F. S. CHAPIN.

THE STABLE.

Montana Bronchos in New York.

The *Stock-Growers' Journal* says that Oliver H. Wallop, the breeder of fine horses of Ashland, Montana, passed part of the winter in New York. As an experiment, he had with him 18 bronchos from Custer county. Mr. Wallop says that never again will he take bronchos to market unless they are thoroughly broken for all purposes. He relates an amusing experience with the wild steeds of the plains. He feels fully compensated for his trouble by the immense fun which he saw.

When he unloaded the quadrupeds in Jersey City, he necked two of the wild ones, they bolted into an alley; a smart Aleck tried to stop the brutes, but one of the animals landed a hoof on the abdominal protuberance of the citizen, and that individual, luckily not killed, crawled off holding his enteric walls and still "glad he was living."

Failing to find any one who could stick on their backs, Mr. Wallop essayed to show how it was done. He rode into Central Park. The animal was so active and erratic in his movements that an Irish policeman ordered Mr. W. to quit the place, as the creature was trampling grass and crushing the shrubbery. The rider could not move him and the policeman was invited, for fun, by Mr. Wallop, to lead the horse out of the park. As soon as the blue coat touched the bridle, the Montana broncho arose and struck out at the peeler, who was mounted. With the cry of "He's a devil," the policeman lit out, adding: "Be dad if ye come in here again, I'll be after arresting ye."

The animals were clipped, and having been blanketed they looked fine; and they were wanted by the master of a riding-school. Samples were taken to the tanbark circus of the school. The galleries were filled with curious people to see the heroes of the Montana horse herds, the untamed bronchos. They saw them. The electric light lit the scene. The band played. The riding-master brought to the front one of his most daring and accomplished riders, who walked confidently up to the broncho, which had been equipped with an English pig skin. "Moind him now!" said another Hibernian gentleman at Wallop's elbow. "Moind him now, till he gits onto him. He's a devil! Ye can see it in his eyes." This remark referred to the broncho and not to the would be rider. The band and the electric light and the cheers of the ladies and gentlemen enthused the Montana horse to do his best. He did his best. First jump the crack rider straddled the horse behind the ears; the second buck dropped him hard back into the saddle, the dainty spur struck the flank, and the man shot straight over the horse's ears and turned gracefully and quickly in the air, yelling "Mein Gott! Mein Gott!" for he was a Teuton, and lit on his back. One old gentleman was in the alcove, in the gallery, 30 feet above the tanbark. Every time the broncho bucked the old gentleman jumped back, having an opinion that

the horse could and would jump into that alcove.

Barnum sent up to buy one of the horses, but after his agent saw the spirited activity of the creature he concluded that the animal was too much for Phineas T.

Mr. Wallop is of the opinion that to successfully sell our bronchos they must be well broken out in Montana, else they will only be bought for bear meat at the Zoo, in New York, and in the latter event Mr. Wallop cautions the owners of the grizzly bears to kill the bronchos before they are fed to Bruin, otherwise he will bet odds on the broncho busting up the bear.

Horseshoeing.

The New York *Sun* has been publishing some interesting articles regarding the method of shoeing horses that are being trained as trotters. In the last issue it has an interview with Robert Bonner, respecting Simpson's method of using tips instead of a regulation shoe. As the use of tips has become quite common in this section, it may interest some of our horsemen to know what are Mr. Bonner's objections.

The first objection to the tips is that with them the foot is not properly balanced, but this is not the main difficulty. Mr. Bonner contends that the tips destroy natural movement, and, eventually, natural formation. He thinks it must produce malformation of the foot and ankle to have a device attached to the hoof which will depress the heel more than nature provides for. He insists that the horse's power of action is as much impaired by that method of shoeing as would be the human hand if one's duties required him to be constantly pushing against some object with his hands, and instead of placing his palm flat upon the object, he constantly kept that part of the palm next to the wrist free from contact. Such use would certainly weaken the power of the hand and wrist, and something of the same nature takes place according to Mr. Bonner when tips are used in place of regulation shoes. But while speaking of horseshoeing, we wish to cite an authority more experienced than perhaps a majority of horse-trainers.

Major Geo. B. Rodney, U. S. A., commanding Battery F, 4th Artillery, recently published a paper on this subject in the *Journal of the Military Service Institution* in which he takes the ground that shoes are entirely unnecessary, even for artillery service. He commences with the statement that many think it strange that any horse should wear out three or four pair of legs, but says it is not to be wondered at when we reflect that special artisans are employed to deform and misshape the foot by paring and shoeing. He proceeds to give some interesting experience that he had with horses used in his command. He finally became a convert to non-shoeing and adopted a regular plan for hardening the horse's hoof while giving the frog a chance to develop and perform its natural functions. His horses were used for parade over the cobble-stone pavement of Chicago in 1887, when they trotted five miles with bare feet, and he was surprised to find that they not only did not shrink from such usage, but sustained no injury thereby. This made such an impression on him that he covered the ground along his picket line to the depth of eight or ten inches with broken rock and compelled the horses to stand on this for four or five hours each day. At first the hoofs cracked and broke off, but the new growth was so tough and hard that it could scarcely be worked with a rasp, and not at all with a knife. Major Rodney says this growth was better than any iron shoes, standing harder usage with less injury to the foot. The conclusion is that shoeing renders the foot tender and is contrary to natural design. Our cavalrymen on the plains also claim that horses are better without shoes, even for long campaigning.—*Eureka Times*

POULTRY YARD.

Liver Diseases in Fowls.

EDITORS PRESS:—In the Press of April 27th is an interesting article by T. B. Geffroy on "Poultry Diseases," in which he alludes to lameness in fowls as a symptom of disease of the liver. Having several times verified by dissection that the above statement is correct, I have waited for some time for some of our poultry experts to give more light upon the subject tending to a remedy for the disease. My last dissection was made May 11th on a fine bronze turkey about two years old. For the past six months we had noticed diminished activity on the part of the bird—he long since ceased to strut and gobble. About four weeks ago we first noticed that he limped occasionally with his right leg, which gradually grew upon him, though he would be better at times. He has also sought a low place to perch instead of occupying a tree, as formerly. All of our fowls have free range, running water from a spring and generally favorable conditions for health. We keep only a limited number for our own use—from 40 to 60 chickens and turkeys, and lose not less than one-half dozen every year from disease of the liver, always accompanied with lameness.

May 11th I killed the turkey alluded to above. A careful examination of all the organs showed them to be apparently healthy, except the liver. This organ was much enlarged (weighed one pound), of a dark-green color and thickly studded with tubercular bodies, white

and round, from the size of a mustard seed to one-half inch in diameter. Cutting one of these bodies, the outer portion is much like cholesteroline, or the substance found in cheesy pneumonia. The center is harder and grates as the knife passes through. The appearance under a glass of low power was fatty and granular. The parenchyma of the liver seemed to be a homogeneous mass entirely incapable of glandular function. However, my means of examination were insufficient to determine the more minute pathological condition of the organ which might lead to the discovery of the cause of the disease and its remedy.

I would suggest that some of our poultry breeders in easy communication with S. F. send a morbid specimen to some expert pathologist and microscopist in the city. I would recommend that the specimen be taken from a fowl not very far advanced with the disease. For when about to die, the liver is almost a fluid mass, held, as it were, in a sack by the delicate serous coat. The specimen might be sent to Prof. Arnold A. D'Ancona of the Toland Medical College, or Prof. Jos. H. Wythe of Cooper Medical College, or any expert who could give light on the subject.

The question naturally arises, is the disease contagious?

This I cannot answer, but would advise that fowls so affected be at once killed and burned, not thrown out for other fowls or swine to feed upon. I send the above to your valuable paper, hoping to stir up an investigation which will lead to practical results.

O. S. PHELPS, M. D.
Blocksburg, Humboldt Co., Cal., May 17, '89.

THE DAIRY.

A Novel Consideration.

EDITORS PRESS:—There is admitted to be a loss by some one somewhere in the cattle business, but by whom and at what point along the line from calfhood to the day the fat steer goes to the shambles, who can tell?

How it may be in other localities I know not, but here in Central Illinois it seems that so long as the people raise babies the cattle-grower will buy feeding steers for less money than he could raise them. When a new child comes into the family, a fresh milch cow is one of the first prescriptions ordered by the village physician.

The children must have milk. In the cities this can be had, such as it is, from the milk-wagon or supply stores, but in the towns and villages the family cow is indispensable. The cost of keeping the calf until it can be taken by the farmer is counted as nothing—is placed rather to family expense account. When it is offered for sale at weaning-time, the question of cost to date has nothing to do with the price. It goes to the buyer at whatever he is ready to give. He perhaps is a farmer who cares to buy a few only to place with a few of his own raising to glean about the barn and feed lots, thus saving what otherwise might be lost. But unless he has a large farm and plenty of pasture, he soon finds himself overstocked with a lot of half-fattened young cattle, so he in turn is ready to sell at figures to be fixed by the next buyer. He either ships to Chicago or sells to the farmer near home who has the broad acres and the money.

This last purchaser is the cattle-feeder proper. As a rule, he buys in the fall the best 2½ or 3-year-old steers to be found among neighboring farmers or at the stockyards, usually paying about 3 cents per pound or an average of \$33 per head. He winters them on grass and corn and sells within ten months at an advance of \$30 to \$36 per head. Even then the feeder is not always sure of having made a reasonable profit on the purchase-money, the land and the time invested.

Surely if there has been little or no profit to the last handler, how could there be any to those who bring the feeding steers to the age when they are to be made ready for market? One thing is very certain: The cattle-feeder does not raise his own feeding stock. He waits and buys only when the animals are right for the last turn.

PHIL THRIFFTON.
Springfield, Ill.
[This is a novel consideration. It cuts no figure out here, for we haven't babies enough to the square mile in our cattle-producing regions to keep one cow busy—and then we don't have to buy cows for all the babies; they have other visible means of support. One thing we can assure our Eastern friends, and that is if the cattle interest and the babies can't both thrive together the cattle interest will have to go to the wall. Our reading has taught us that since the birth of Cain the baby has been the boss of the world and the *bos bovis* stands no chance beside him.—EDS. PRESS.]

Keeping One Cow.

EDITORS PRESS:—Will some reader of the Rural who keeps one or more cows give a rancher some hints on the keeping and milking of one cow; also quantity of feed and when to give it. How much milk ought an average cow to give per day?

G. H.

El Dorado, Cal.

THE FIELD.

Better Cultivation of Field Crops.

T. S. Van Dyke, after a visit to the back country of San Diego county, wrote to the *Union* as follows:

One of the best signs of the future is the vast improvement in the quality of the plowing. It is but a short time since all grain was scratched in with a harrow or cultivator. Even the gang plow ran little deeper. Such work gave good results in most years, because in good years almost any planting will do in California. But it was not such work as prosperity can depend upon. While it will often do for grain, it begets a slovenly habit which is carried over to everything else, and tells too heavily in the long run. Now the single plow or sulky plow is doing the work and running several inches deeper than ever before. Hundreds of fields show plowing that would be very good in any part of the United States, and the results can be but one way.

There is every reason to believe that the rest of the county is in the same condition as the portion over which we traveled. If so, the area in trees and vines will be nearly double what it was a year ago, and there will be about 2,000,000 bushels of grain raised. A considerable area of grain will of course be out for hay, which is always a profitable crop. But as most farmers have already six or eight months' supply left from last year, the proportion out for hay will not be very great. There has now been abundance of rain to insure a good crop. More is quite certain to fall, but with the usual cool weather of spring, upon which the California crop mainly depends, there is already enough.

A considerable area is evidently being prepared for corn. Here is a chance, if people would only utilize it, to surprise all strangers, over and over again. A good crop of corn—not a big crop, but a good, paying crop—has been raised without irrigation upon high uplands, dozens of feet from water below, and upon which not a drop of rain has fallen since planting of the seed. Nothing paralyzes a tenderfoot like such a corn-field; and at Fallbrook, and one or two other places, such corn has sold more farming property than all else put together.

The trick is a very simple one, though many make a wretched failure of it. It is done by good plowing, proper planting and thorough cultivation after planting. The old style has been to plant either in furrows like peas, or in hills about 20 inches apart, crooked both ways. In either case it was never touched with plow or cultivator after planting, and could not be cultivated even if one were disposed to treat it properly. This style was imitated from the Mexicans, who, however, always irrigated, and made water-works instead of the plow. The first Americans imitated them in all but the important feature of irrigation. The Mexican rarely or never planted corn where he could not irrigate. The American cared little where he planted it so long as he could do all work beyond that of planting. I have even heard people say they preferred the upland to bottom land for corn, because they didn't have to cultivate it. That is, the weeds did not bother them there, and the killing of weeds was the only object of cultivation that they could imagine.

But a few years ago there came some men from Kansas and other sections of the West, who planted corn exactly as it is planted in Kansas—in hills about four feet apart and straight both ways. The Kansas farmer cultivates steadily after planting, until the corn becomes too high to drive through without injuring it. As soon as he finishes the field one way he starts into it the other way, and then back again the first way. In the Western States this is done primarily to kill the weeds which would otherwise smother the crop. But its effect in retaining moisture is quite as important, and in seasons of short rainfall it makes the difference between a middling crop and no crop at all.

The same course pursued here has repeatedly given crops of from 30 to 60 bushels of corn to the acre upon almost any kind of high upland. Much of this has been successfully done on the mesa back of Encinitas, Del Mar, and other places along the coast as well as in the mountains. Potatoes, beans, and all other crops planted on hills, may be raised the same way, not of course to the extent they could be with irrigation or on wet land, but still to an extent that will well repay a man doing his own work. It requires only good work, good judgment as to time of planting, and then results are sure. Where a man does his own work, 15 bushels of corn to the acre will pay, counting in the fodder, which here is always good. A large amount will be planted this year, and if the improvement in its cultivation keeps pace with the improvement in plowing everywhere else, the corn crop will be a large item.

COWS FOR DRAFT.—A team of four cows appeared in Bellevue, Idaho, not long ago, having been driven from Nebraska, a distance of 1000 miles. They had acted as motive-power for a prairie schooner, and had also furnished milk and butter for the farmer and his family en route. They were in good condition, with the exception of their feet, which needed shoes badly. It may not be generally known that cows will stand that kind of work about as well as oxen, and in proportion to their weight will haul a greater load.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Butte Mt. Pomona, Masonic hall, Yuba City...June 29
Sonoma Co. Pomona, Santa Rosa...July 17
State Grange, Sacramento...Oct. 1

Oregon.

Molalla Picnic...June 4
Pearson Valley Picnic...June 7-8
Darius Grange Picnic, Luckiamute Falls...June 7-8
Lane Co. Picnic, Stafford...June 15

Some Things in Our Grange Edition.

In our Grange Edition to-day the following matters of interest are mentioned at more or less length:

Grange Prospects in Mendocino County, A Grange Paper, China Wedding, Sacramento Grange Harvest east, The "Patrons' Budget," A Non-Voter's Thoughts, The Master of Arroyo Grande Grange, Has Come to Organize a Grange, Oregon State Grange—Address of Worthy Master Hayes, Marion County Pomona, Salem Grange.

Children's Day Important.

Do not think too little of Children's Grange Day, which comes on Saturday, June 15th. It is important to give the young folks their Grange day of delight.

While the young, if properly encouraged in the Grange to take an interest and part in ordinary Grange meetings, are more to be benefited by experience, education and social acquaintanceship than many older heads, they are not so fully entertained with the general proceedings, some of which, even to grown people, are considered "rather dry." So give the children a good day once a year for themselves.

The National Grange, with due consideration and wisdom, has announced that the children shall have a day all their own. If it be too late to make proper arrangements for the day announced, take some later date.

Say they meet at ten o'clock, and outdoors if convenient. Otherwise hold an open meeting in the hall. Get the young folks to take active part (with a little assistance from the older ones) in decorating the room and preparing a program.

Make it an occasion to bring in outside farm-people, as well as their children, and let them learn of some new and pleasant features in farm-life.

We merely suggest something like the following for an

Order of Exercises:

1. Music by the Grange.
2. Address of Welcome by the Lecturer, Master or other brother or sister to the children.
3. Response by some young brother or sister.
4. Song by the young folks.
5. A recitation by some young Patron or invited guest.
6. Reading of a humorous poem or essay.
7. Solo or duet by some good singer.
8. Reading and answering questions written by the children and dropped in a box passed around.
9. Ask the children what they think of the Grange. How many will join it now? How many when old enough? Ask parents who are eligible to join. Ask how many have children old enough to join who are not yet members.
10. Appointment of committee to arrange for next Children's Day.
11. A march or dance by all hands around, the children in the front, with appropriate music.

We refer this hastily suggested program to some of our apt readers to make amendments and complete the list in our next.

Patrons, do not close the next session of your Grange without taking up this subject and if possible arranging for a splendid time for the boys and girls of your Grange and neighborhood. Get them into the Grange. It is important to you and to your Grange, and even more beneficial to them.

A STRAW BINDER WANTED.—The State Grange of Illinois, through its Executive Committee, offers \$10,000 to any one who will invent a machine or device to attach to reapers, that will bind wheat and oats with straw. The device may work and twist its straw direct from the reaper, or it may be a separate machine that will twist the straw and wind on large spools, that may be re-reeled on smaller spools by the farmer and set in place on the reaper when wanted. The money will be paid as soon as the device is proved to be a success. Should more than one person claim the \$10,000 on his invention, the committee reserves the right to choose the one that to them seems the most practicable. The patent is to be issued for the use and benefit of the Illinois State Grange, and legally transferred by the patentee. This offer holds good until July 8, 1889.

WATSONVILLE GRANGE will confer the third and fourth degrees on a large class June 15th, and have a Harvest Feast June 22. All Patrons are most cordially invited to attend on these occasions.

BENNETT VALLEY GRANGE.—The party at Grange hall, May 17th, was a success socially and financially. It is rumored that Bennett Valley Grange will have a very large class to initiate into the mysteries of the Order in the near future.—*Sonoma Democrat*.

The Patrons of Husbandry and Pioneers at Alvarado.

The picnic given by the Grangers of Alameda and Santa Clara counties, in conjunction with the Pioneers of Washington, Murray and Eden townships at Alvarado, Saturday, attracted a large attendance and proved a most satisfactory event in every respect. Quite a large delegation attended from Oakland, and the San Jose train brought a number from Santa Clara county. Many came in from the surrounding parts in private conveyances, and there were over 200 vehicles about the park. It was estimated that during the day there were over 1000 people present.

The grove in which the picnic was held is convenient to the station and was generously placed at the disposal of the Pioneers and Patrons of Husbandry by Mr. Granger, the proprietor. Tables were ranged about among the trees for the convenience of the visitors, most of whom came provided with well-filled lunch-baskets.

The literary exercises of the day were rather impromptu. During the forenoon the committees of Temescal (Oakland), Eden (Haywards) and San Jose Granges met and selected the following officers of the day: President, A. T. Dewey of Oakland; Vice-presidents, O. F. Alley, Master of San Jose Grange; Judge W. C. Blackwood, Master of Eden Grange; Rev. S. Goodenough, Chaplain of the State Grange and Master of Temescal Grange; Secretaries, Bro. Henry A. Brainard and Sisters A. Sharia and Nellie C. Babcock, Secretaries respectively of San Jose, Eden and Temescal Granges.

Music by the boys' band of the Reed-street school, San Jose, attracted the crowd to the speakers' stand about 11 o'clock in the forenoon, when the President, A. T. Dewey, announced the officers of the day and the order of exercises. After a selection by the band, Rev. S. Goodenough of Oakland offered an invocation. The President of the day, Mr. Dewey, then made some brief remarks in which he congratulated the Grange upon the progress that it was making. They had come together to meet socially, and he hoped that the day would be one pleasant and memorable. Mr. Dewey then introduced F. B. Granger, Sr., who in a few words welcomed the visitors. In a few complimentary remarks the President then presented Joaquin Miller, who he said had brought his mother with him to enjoy the day and would make some remarks and recite a poem. After remarks in a humorous vein, the poet recited his own lines, as follows:

The Fortunate Isles.

You sail and you seek for the Fortunate Isles,
The old Greek Isles of the yellow bird's song,
Then steer straight on through the watery miles,
Straight on, straight on, you cannot go wrong.
Nay, not to the left, nay, not to the right,
But on, straight on, and the isles are in sight.
The old Greek Isles where the yellow birds sing
And life lies girt in a golden ring.

These Fortunate Isles, they are not so far,
They lie within reach of the lowliest door;
You can hear them sing by the twilight star,
You can see them gleam by the moon's white shore.

Nay, never look back. These lonely gravestones,
They were living steps, they were steps into thrones.
All glory for souls that have gone before
And have set white feet on the fortunate shore.

And dear the names of the Fortunate Isles,
With labor and love and a large content,
Lo! these are the isles of the watery miles
That God let down from the firmament,
Lo! duty and love and a true man's trust,
Your forehead to God though your feet in the dust;
Lo! patience and love and a sweet babe's smiles,
And these, O friends! are the Fortunate Isles.

Major E. A. Sherman was then introduced as one of the pioneers and delivered an oration. At the conclusion of Major Sherman's address the President announced that it had been hoped Governor Waterman would be present, but he had been called to San Bernardino and was unable to attend. An intermission was then taken, during which the company gathered about the tables or in family groups for the discussion of the refreshments. Joaquin Miller sat at the table with Judge Gibson, Dr. L. P. Hess, J. R. Capell, A. T. Dewey, Rev. S. Goodenough and a number of ladies. He was in one of his happiest moods, and seasoned the feast with jest and repartee.

Afternoon Exercises.

After ample justice had been done to the abundant provisions the crowd again gathered about the stand, where some brief and impromptu speeches were made by Judge W. C. Blackwood, W. T. Gibbs, president of the Alameda County Pioneer Association; C. J. Cressy, Judge E. M. Gibson and Mrs. L. J. Watkins. Joaquin Miller again entertained the audience with a brief speech and by reciting "William Brown from Oregon" a poem written by himself which was published in Rural Press of May 19, 1888. O. F. Alley, Master of San Jose Grange; D. W. C. Gaskill, a pioneer, and Orrin Dennis, Past Master of Eden Grange, also spoke, and C. J. Cressy enlivened the proceedings with interjected remarks and witty allusions. The remainder of the day was devoted to dancing in the pavilion by the young people and sociability by the older persons. At five o'clock the train conveyed the Oakland delegation home.—*Oakland Enquirer*.

The Oregon State Grange.

The annual session of the Oregon State Grange convened at the State House in the city of Salem last Tuesday, to remain in session three days—Tuesday, Wednesday and Thursday. Governor Penoyer delivers the address of welcome, responded to by Mrs. I. L. Hilleary of Turner Grange. On behalf of Salem Grange, Judge R. P. Boise welcomes the Grange, with a response by W. A. Sample of Heppner. The California delegation is welcomed by Sister H. E. Hayes. We go to press too early in the week to receive an account of this meeting, but hope to give a report of its work in our next issue.

A Visit to Hollister Grange.

MESSRS. EDITORS:—Pursuant to agreement with Hollister Grange, I boarded the Del Monte flyer, and in less than no time arrived at Gilroy, where I nerved myself for a two-and-a-half-hour wait, but succeeded in breaking all former waiting records, as the train was nearly an hour late.

Arriving at Hollister, I was met by the genial Master of the Grange, Bro. G. S. Nash, who, with a convenient carriage and a fine Norman, whirled me away to his beautiful mansion, where a fraternal greeting from Sister Nash and an excellent dinner again convinced me how good it was to be a Patron. We soon reached the Grange, where Sister Rachiff presided at the piano and an excellent choir singing familiar songs was most inviting.

The work in this Grange was well rendered, and a class was instructed in first and second degrees in a manner which would make most old Granges look to their laurels. The interest and energy exhibited by officers and members will surely fill this Grange with a hundred of the progressive farmers of this beautiful valley in a short time. Among those present were three of the wide-awake officers of Gilroy Grange, who came on a tour of inspection, and who doubtless were amply rewarded for their long ride.

After Grange I was taken in charge by Bro. and Sister Gustav Brown. I reached their well-kept home among the sheltering foothills about six o'clock, and was shown over their large ranch until sundown. Improvement is here the order on every side, and with a large and healthy family, this brother and sister should be happy. Spent a very enjoyable evening discussing the U. W. and Sister Brown's jokes. Was again taken possession of by Bro. and Sister Nash, who placed me under lasting obligations for their hospitality. After inviting all to attend Watsonville Grange on the 15th of June, when the third and fourth degrees will be conferred on a large class, or on the 22d, at the Harvest Feast and entertainment, I bade them all, good-by and God-speed in our glorious cause.

A DEPUTY AT HOLLISTER.

A Non-Voter's Thoughts.

(Written for the Rural Press by Mrs. J. M. K.)

Notwithstanding the discussion of partisan politics was wisely, no doubt, forbidden in the Grange, the discussion of principles of political economy and legislation affecting the farmer's interests has been a powerful means of education. The Granger no longer looks upon his party as infallible and the other fellows as the sum of all wickedness. All these years of close acquaintance and fellowship should certainly have created such confidence in each other as will permit freer discussion than was at first possible.

I believe the political education of the Grange will be far more rapid in the future than in the past. Let every true Granger stand firmly for principle, and frown upon the sentiment that to vote upon the winning side is to be aimed at or gloried in.

We are told we "must vote together." Certainly, if half full on one side and half on the other, we have no force in elections—but who is to tell us where to pull? While each looks at candidates and measure through the lens of the old party papers, is it not likely we will continue to pull against one another?

It is all very well to mend up our old tools as long as they can be made to do the work; but there comes a day when that is no longer possible and we must have new. While truth and justice are eternal, parties in the very nature of things are not immortal.

To my mind all things indicate a speedy recasting of parties. There is a loud call for one that shall stand for right as against wrong. While the farmer plowed and reaped, while the workman toiled in the marts of the world, while the preacher labored for the next world, and woman was relegated to domestic seclusion, greed and avarice seized upon every vantage ground of power. But let us not paralyze our energies by a pessimistic view. Only the fatalist sits down in indolence, saying, "It is the will of Allah."

The army, eager and ready to work for righteousness, only waits to be organized and intelligently directed to rout the foe.

(Now, Mr. Editor, I so dislike hinting and beating about the bush, please indulge me in a few plain words.)

Mr. Carr, in his article May 11th, tells us he is ready to join or form a new party, "unless the present political parties of this country

grant us a part at least of what belongs to us." Now, I believe the day is past when by either petition or demand much can be gained through them. Still, a party called farmers' and workmen's does not meet my view of the broad foundation we need. We ask no special favors or privileges, only such just and equal legislation as will be for the good of the whole people; only such laws as honest, right-minded people of all classes and occupations should be willing to work for. The foundation of this grand new party, which is to enter upon the new century and shape it for more equal justice and prosperity than the world has yet seen, is even now being laid by earnest, self-sacrificing men, who well know that for years to come they are leading a forlorn hope; but trusting in the justice of their cause, they work for its advancement in the ranks of this or that little reform party. I expect to see at no distant day the leaders of some of the most prominent of these parties discussing issues of the day and formulating a platform which their respective adherents can indorse. From what I have learned, I believe this is no very difficult task.

What, then, should the Grange do to-day? Get up on the fence and take your bearings. If you find your old party, by the natural law of inertia, has ceased to move, look about for one traveling in the direction you wish to go; then join it, and work with all your might—be one of those enthusiasts who, as we are told in a late Press editorial, "In some corner, garret, cellar or open field are rallying humanity against wrong."

The S. P. C. Loses Land.

In the United States District Court at Los Angeles, May 27th, a highly important decision was rendered by Judge E. M. Ross in the suit brought by the Government against the Southern Pacific Company to annul patents issued to that company for land situated in Los Angeles county.

The particular case decided involves about 2300 acres of land, but the ruling of the court affects the title to 800,000 acres lying between Tehachapi and the Colorado river.

All the lands involved in the suit are situated within the 20 mile or primary limits of the grant to the Southern Pacific, and part of said lands were in 1871, when the grant to the Southern Pacific attached, within the claimed limits of the Rancho San Jose, and were excluded by the final patent and survey. The Government contended that the lands in dispute were included in confirmed Mexican grants, or in the Atlantic and Pacific grant, which are both prior.

In overruling the defendant's demurrer, Judge Ross held:

First—That the lands which were within the claimed limits of the Rancho San Jose were *sub judice* when the railroad grant attached, and were excluded from the operations, and that the patents therefor were issued illegally and should be vacated.

Second—That all the lands embraced in the suit having been on the general line of the grant to the A. & P. R. R., under the Act of Congress of July 27, 1886, were excluded from the grant of March 3, 1871, to the S. P. C., and that the patents issued to the latter company were issued illegally, and should be vacated.

In speaking of the decision U. S. Attorney Denis said: "The railroad company has already sold a good portion of the land to innocent purchasers, but by the law under which the suit was commenced these will be protected in their rights. They will be enabled, if the Supreme Court affirms this decision, to patent the lands they have bought from the railroad company direct from the Government, and the Government will, in turn, bring suit against the railroad company for the purchase-price of the land."

It is understood that the S. P. Co. will take an appeal to the U. S. Supreme Court.

EDEN GRANGE deserves much credit for their attention in securing the grounds for the picnic at Alvarado last Saturday. The members arranged the grounds in proper order and in various ways assisted in making the affair a success. San Jose Grange turned out in good numbers, doing their part of the work well. All the Granges were especially benefited by the securing of so good a band on very acceptable terms.

UNITED STATES POSTMASTER GENERAL JOHN WANAMAKER has ordered that all postmasters who are saloon-keepers, holding office under him, shall be removed, and he has issued an order that no postoffice shall be allowed to remain in a place where liquors are sold, nor in any room opening into such place.

BRO. A. T. DEWEY, accompanied by Sister Dewey, left for Salem, Oregon, last Sunday evening to attend the session of the Oregon State Grange. We wish them a pleasant journey and safe return.

SUBSCRIBERS who are Patrons, or feel interested in the Grange should bear in mind that, upon application, they can receive the Grange edition of the Pacific Rural Press, containing two or more extra pages of Grange news, in place of the regular edition, without extra cost or the loss of any considerable amount of valuable reading or advertising matter.

STOCKTON GRANGE will meet on the first and third Saturdays during the months of June, July and August.

Bro. Flint at the East.

MESSRS. EDITORS:—May 9th, a party of four of us left Sacramento, journeying across the continent, to finally bring up at the Paris Exposition and see something of the Old World. Our sleeper went from Oakland to Council Bluffs without change, which is much more agreeable than formerly, when we had to change at Ogden. Ours was a buffet car, with facilities for making coffee, tea, and getting up some warm dishes, which served to make our dry lunch palatable.

We did not get off to get a meal until we arrived at Chicago. We had a regular picnic at each meal, as four of us gathered around the small table with contents of two large baskets spread out—sometimes two and three stories high. I think we consumed about one-third more than we would if we had sat at two different tables. We indulged in so much chatting and gossiping of times gone by, and planning in anticipation of the trip before us, that we hardly knew when we were through with our meals except by timing ourselves.

The country around Truckee was mostly covered with snow, and we did not see much more, except high peaks, until we arrived at Sherman. From there on, for a long distance, the ground was covered with snow, about six inches deep, and the cattle and horses were pawing the snow from the grass or nibbling at the stray spears of grass that stuck up through the snow.

I could not help remarking the almost endless barb-wire fences through Wyoming, Nebraska, Iowa, Illinois, Indiana and part of Michigan, and even quite a percentage of Canada. I said to myself that the inventor of barb-wire fence was entitled to a pension from the Government for the saving of the tremendous consumption of lumber for fences. It would seem that the lumber for fencing in the United States is beyond the power of computation, and that the ratio of consumption is much greater than the growth; and, from that manner of reasoning, it would be but a few years before our valleys and hills would be treeless. I believe the wire-fence man has come to stay; and now, when I want a little lumber to build a woodshed or chicken-house, I shall not have any scruples in ordering it.

Iowa showed off her black, rolling prairie ground, as the farmers were turning it over for corn; while Illinois corn was just coming up so you could see the rows.

We arrived in four days and 22 hours from Sacramento, in Lansing, Mich., where we found Mayton Buck with his carriage and white courser ready to receive us and take us to his father's house, D. W. Buck, ex-Mayor of Lansing. We left our co-partners—James Hutchison and wife—at Chicago, to visit friends and places and to meet us at New York on the 24th. Our stay in Lansing could be of only two days, so we had to visit very fast and improve every moment. The time flew so fast with our friends that it seems more like a dream than a reality.

While in the midst of the pleasures and congratulations of our friends, we could not forget those that were silent. We visited the beautiful City Cemetery, where lie the remains of Mrs. F.'s mother and two sisters. Marble and granite slabs, with affectionate and appropriate inscriptions, mark the places where lie the bodies of two beings that were as dear to me as my own sisters, and a mother-in-law that watched over me in my sickness with that tender solicitude which only a mother could bestow on a favorite son. As a token of affection to the departed, the fragrant lilac was plucked from the shrub growing in the yard—where they had seen it, each returning spring, in its full perfection, and deposited on their respective graves. Before stepping into our carriage, we took a long, sad look at the sacred spot where memory calls back and affection lingers. If the spirits of the departed are permitted to be present, I believe they were there, and I saw them as I did years gone by, when I communed with them in their physical bodies.

We took sleeper, via Port Huron and Suspension Bridge, to Buffalo, where we had to wait five hours, which time we put in looking at the large city, its parks, cemetery and fairgrounds. They have a mile track, regulation style, with quarter-turns. The Agricultural building is inclosed in the grounds, which is the city limits. The stalls, pens and coops are well arranged, and everything seems to be arranged with an eye to beauty and convenience. The main building is very large and nearly square—not so high as some—and ornamented with gables, towers and columns. Buffalo has grown wonderfully in the last few years; has fine business blocks, well-paved streets, ornamental and inviting residences.

We arrived here Saturday night via Albany, Springfield and Greenfield, completely tired of resting in easy-riding and well-appointed cars. Royalston is a true type of a New England village, on Miller's river, nestled between the hills, where every 20 rods the water can be used again for power. Rock maple trees give shade on either side of the streets through the village, and their green, clean leaves can be seen mingled with the white birch, oak, and elm, covering the hills as far as their undulations permit the eye to extend. The whole landscape presents a carpet of green and everything seems at its best. The sky is a little overcast to-day, and warm May showers are falling, which must

give great promise to the tiller of the soil as he looks out on the green hills and sees in anticipation the well-filled barns, granaries, and cellars, which means well-filled wallets, sound sleep, contentment and happiness.

The loom and the spinning jenny are rattling in my ears. They give employment to young men and women, who are forming industrial habits which will shape their future destiny. A double-track road passes through the village, which distributes their manufactures through the West, and brings in return their more cheaply grown grain, flour and meats, with an occasional balance of shekels.

To help freshen my memory of boyhood days we went out into the pastures and gathered pippins, checkerberries, wintergreen, and flowers. I saw the high and low bush blueberry, full of blossoms, which gave great promise of a coming crop. How I longed to drop a few of them into a bowl of New England milk, seasoned with a slice of brown bread.

I have seen and recognized most of the trees and timber that I knew in my youth, except the black birch, the bark of which I used to chew as the modern school-girl does her gum. I shall probably never forget how the white birch looked as it so frequently hung over the mantle of mother's kitchen. It made more frequent and lasting impressions on me than most any other kind of timber, and from the melody of its peculiar switching tones it caused me to dance quicker and step higher than the most fashionable music of these days.

I hardly know the wages paid here, but the people dress well, live in good houses, live well, and seem to be contented. It looks discouraging to me to see where they try to grow crops in among the rocks. I will send you a few lines now and then to let you know where we are holding forth.

Royalston, Mass., May 20th.

An Imposition or Not?

MESSRS. EDITORS:—I wish to call your attention to an imposition that is being practiced upon the unsuspecting Grangers. Last February I sent an order to a prominent nursery company for orange, lemon and walnut trees. The order was filled and received. When the bill was sent (amounting to \$46.90) they had charged me with 70 cents for two boxes which the orange trees were packed in and 40 cents for packing the other trees. When I forwarded payment, I refused to pay the \$1.10 and told them that I believed the shipper paid for boxing and packing. They sent me back a letter stating that I was mistaken and that they must insist upon my paying \$1.10 for packing and boxing.

Now I believe this is a great imposition, as I never, in my 25 years of farm-life, heard of such a thing before. I should like to get your opinion through the Press upon this, as I have so far made up my mind to stand a lawsuit for the \$1.10, for if we submit to such a thing, we will have you or any one we deal with charging us extra for the wrapper that you put around our paper, and for stamping our address on it.

This shows how all are trying to cinch the farmers. When I take a load of wheat to the dealers to sell, after it is weighed they deduct one pound of wheat for every sack, and if I want my sack again, they charge me four or five cents for it.

OLD SUBSCRIBER.

[Our correspondent is undoubtedly right in his general proposition that many buyers and sellers will cinch the farmer if they get a chance. As for packing trees, there is a different practice as to charging for the packing, and usually the catalogue states whether there is to be any charge or not. As this is the case and as some dealers have always charged for packing, our correspondent could not escape the payment of this bill, but he can deal with those who do not charge for packing in the future if he desires. If all should do that, the charge for packing would soon disappear. The practice with reference to grain sacks is clearly wrong. The farmer makes a dead loss on a grain sack anyway.—EDS.]

THE U. S. DEBRIS COMMISSION.—We learn from the Yuba City Farmer that Majors Ban-yard, Hanbury and Heuer, the Government engineers appointed by the Secretary of War under the provisions of the Biggs bill, were in that neighborhood on Monday of last week, and, in company with Dr. C. E. Stone, president of the Anti-Debris Association, and George Ohleyer, the manager, were escorted about the Marysville levee, the Sutter levees, and to the junction of the Yuba with the Feather. After lunch a drive was taken on the Brown's Valley grade to the site of the State brush dam, some eight miles above Marysville, thence further on to De Guere Point near the foothills, where a rock debris dam had been spoken of as an eligible site. The commission was disappointed in the size of the river, it being bank-full from melting snow, so that the low-water channel and sand-bars were out of sight; so, after returning to the city, the commissioners decided to end their investigations for the present, and return some time in July to complete their work.

WATSONVILLE GRANGE, at a late meeting, passed resolutions on the death of Mrs. A. Davis, a much-respected member of the Order.

The Worst of all Fruit-Pests.

Small boys, says the Fruitvale correspondent of the Oakland Enquirer, are the greatest fruit-pests that fruit-growers dread. It is not the few cherries that they might steal, but it is the damage done to the trees. When a boy gets turned loose in a cherry orchard, when the owner is not around, he is liable to do more damage than he imagines by breaking down branches and tearing off fruit buds. Sometimes whole trees are spoiled in this manner. A number of orchardists on Fruitvale avenue have been heard to say that they are not going to stand this sort of thing this year, and fruit thieves had better beware of buckshot. More than one person was filled full of holes last summer for violating one of the ten commandments.

CATCHING THE CROCODILE.—A remarkable dream story comes from Nevada, showing the good that sometimes results from obeying the indications or intimations that are given in dreams. A man was greatly opposed to lotteries and believed that their influence was demoralizing in the extreme. He dreamed three nights in succession that a certain number in the Louisiana Lottery would draw the capital prize. It made so strong an impression upon him that he determined, in spite of his fixed principles, to buy, if possible, the ticket indicated. He went to the vendor of tickets and inquired for that ticket, and learned that it had just been sold. He sought out the purchaser, but to his sore disappointment found that he also had received the same mysterious intimation as to its value. Nevertheless, after much persuasion, he succeeded in buying a half interest in it for the sum of \$500. The impatience with which he awaited the drawing may be better imagined than described; but when the list of winning numbers came, the most anxious and careful investigation did not reveal among them the number upon which he had risked his cash. Now he is more decidedly opposed to lotteries than ever.—Kern Californian.

WATER-STORING PROJECT.—The Steamboat & Washoe Lake Canal Co. has been recently organized by B. G. Clow, Irwin Orane, W. D. Hardin, R. S. Gammon, R. H. Ball and others, who are to carry by a large ditch the winter surplus of water in Galena creek and White's and Thomas' canyons into Lower Washoe lake, at the lower end of which a dam of solid stone masonry is to be erected, eight feet high and about 40 feet long. As there is but little fall to this part of the valley, this dam will set the water back for a distance of at least two miles. Twelve years ago Surveyor-General Hatch made a survey of the above-named water-courses, and learned that they would furnish 6000 inches of water during the irrigating season. This amount, with the natural flow of the other streams, will afford water sufficient to irrigate for 4½ months in the year, 14,000 acres.—Reno Gazette.

THE TEXAS SPRING PALACE, which opens this week at Fort Worth and is to remain open until the 20th instant, is built wholly of Texan products. The dome is to be entirely covered with wheat; the towers made each of some distinct staple—one of corn, another of cotton, and so on. On the floors within will be grouped the minerals, grasses, grains, fruits and vegetables of the Lone Star State, while the galleries are devoted to women's work, the flora and fauna, pictures of farm-life, historical and archaeological exhibits, etc. The whole is happily entitled a Karporama (fruits-picture) of Texas. We are indebted to the courtesy of Director-General Somerville for a complimentary pass, which we would be pleased to present in person.

THE WESTMORELAND DAM WRECKED.—A large portion of the dam built by the Mokelumne Ditch and Irrigation Co. across the Mokelumne river, near Lancha Plana, was carried away by a sudden rise of the river on the 20th ult. The dam was about 50 feet high and 150 feet long. It was built of the famous sandstone common in that section, and was apparently strong enough to withstand any flood. It is thought that the masonry was cracked and loosened by the earthquake of the Sunday morning previous, making it too weak to stand the strain when the body of water came down upon it. The breach is about 80 feet wide by 12 or 15 feet deep, and it will cost many thousands of dollars to repair the damage.

MEXICAN WHEAT CROP.—Dispatches from Guaymas report an immense wheat harvest in Sonora, and for the first time in the history of Mexico there will be a great surplus, the exportation of which to Liverpool, via New Orleans, will begin in a few days. The authorities, to assist farmers in the heavy expenses of transporting to Sonora railway stations, offer a premium of \$1 a ton.

KILLED BY A HAY-DERRICK.—Fred. Bentner, a well-known farmer of Mount Eden, was killed by the falling of a hay-derrick, Tuesday evening, about 7 o'clock. One of the ropes gave way and the heavy fork fell, struck Mr. Bentner on the head and crushed him to the earth.

HALF A MILLION sacks of barley will soon be put on the market by San Diego farmers. Last year none whatever was produced.

PALO ALTO.—Senator Stanford has sued for an injunction against the Carnall-Fitzhugh-Hopkins Co., a real estate firm. Last September they published a pamphlet entitled "Souvenir of the Leland Stanford, Jr., University." The object of the publication was to advertise a large tract adjoining the Palo Alto ranch, which it proposed to subdivide into town lots and sell at public auction. The name of the proposed town was to be Palo Alto. Mr. Stanford asks that the firm be restrained from further publication of the pamphlet and that they be compelled to abandon the use of the name "Palo Alto," as applied to any adjacent lands.

THE CHERRY-GROWERS.—According to a dispatch from Haywards, the cherry-growers miss the tender attentions of the cannery buyers this year and suspect that the canners propose to deal through the commission merchants and not buy at first hands. We do not know what reason there may be for the statement, but the fact seems to be that Eastern cherry-eaters are to be filled with California fruit. Cherries are being shipped a carload a day from San Lorenzo and Haywards, and a special agent has gone East to facilitate the trade. Our market report contains telegraphed Chicago auction prices on cherries.

AGRICULTURAL DIRECTORS.—Governor Waterman has appointed the following Directors of district boards of agriculture: District No. 26, John McFarland, for the term ending Dec. 1, 1890, vice I. N. Holman; Oliver Plummer, for the term ending Dec. 1, 1892, vice H. A. Messenger; E. J. Gregory, for the term ending Dec. 1, 1889, vice A. O. Smith; No. 18, A. W. Eibenschutz of Inyo Co., for the term ending Dec. 1, 1890, vice W. Walker, failed to qualify; No. 23, Contra Costa Co., D. N. Sherburne, J. E. Dunham, H. Raap, G. P. Loucks, J. H. Fennent, R. G. Dean, F. Sanford and R. C. Terry.

SETTLERS DISTURBED.—E. D. Angus, an old soldier, who settled at Creston, on the line of the A. & P. R. R., writes the Chronicle that the S. P. Co. threatens to drive the settlers from their homes, on the ground that the company wishes to build on its grant. The settlers are indignant and threaten to fight rather than leave their homes. Many of them have made extensive improvements on their property. There are about 1700 settlers on the grant. At the United States Land Office no information as to complaints from settlers had been received up to Tuesday last.

SECRETARY RUSK is not only sensible and honest, but somewhat of a humorist withal. "You've got the prettiest place in the city," remarked a visitor to him the other day. "Of course. Why not?" was the prompt rejoinder. "You know the Secretary of Agriculture is the tail-end of the Cabinet, and the tail is almost altogether ornamental. Its principal use is to keep the flies off the other members of the Cabinet."

AN UNCOMMON CASUALTY.—Geo. W. Coffey, of the "Summit Ranch," six miles north of Red Bluff, had ten goats killed by lightning. They had sought shelter under a large oak tree, when the lightning struck the top, following the body down to the ground, and killing only ten goats out of two hundred. Mr. Coffey was standing within twenty-five yards of them at the time.

THE LAS ANIMAS LAND AND CATTLE Co. has incorporated with Geo. W. Grayson, A. Bolland and R. R. Grayson of S. F., and W. S. Hopewell and N. Grayson of Hillsboro, N. M., as directors, and a capital stock of \$2,000,000 fully subscribed. Its field of operations will be New Mexico.

RIPE FIGS.—Briggs, Ferguson & Co. and Eveleth & Nash report the arrival of the first fresh figs of the season from Palm valley, San Diego county, where they ripened May 15th. The fruit came through in prime order and brought 50 cents a pound.

AGRICULTURAL DIRECTOR.—A Sacramento dispatch, May 24th, says that the Governor has appointed P. H. Klinefelter a director of the 28th District Board of Agriculture (San Bernardino county), vice Joseph Jarvis, who failed to qualify.

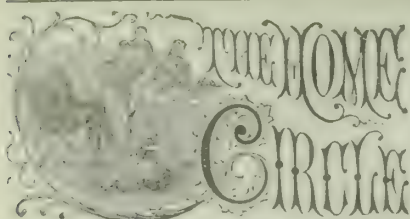
HORTICULTURAL COMMISSIONERS.—A. F. Kercheval of Los Angeles, Hiram Hamilton of Orange and J. A. Driffell of Pomona have been appointed Horticultural Commissioners for their respective towns, and qualified May 23d.

BAD FIRE AT RENO.—Last Sunday afternoon a fire broke out in the old Theater building at Reno and consumed hotels, flooring-mills, shops and residences to the value of \$250,000—about half insured.

NEW postoffices have been established at El Verano, Sonoma county, with Wm. H. Keeler as postmaster, and at Largo, Mendocino county, with Lemuel F. Long as postmaster.

REV. E. E. HALE says: "The public schools do not fit children for life. They merely prepare them for examinations."

A HEAVY white frost on the night of May 23d is reported from Grand Forks, D. T.



Showers.

[Written for the Rural Press by MINNIE W. EDWARDS.]

The Unwelcome Shower.

The farmer gazes on wet new-mown hay—
"Just my luck to have it spoil this way."

The farmer's wife sighs sadly and says, "O dear!
There'll be no new 'tall hat' for me this year."

While the farmer's boy says with woe-begone face,
"Pears like I'll get no cash from this yere place!"

And the little one says, looking up in the air,
"I don't see any 'cats and dogs' coming down here!"

The Welcome Shower.

The farmer gazes and says, "Ha! ha!
'Twill give me fine crops I'm sure, Tra-la!"

And the farmer's wife laughs and says "Te-he!
'Twill give me soft water for washing, I see."

And the farmer's boy laughs aloud "Ho! ho!
I'll hie to the barn and pick my banjo!"

While the little one says as he looks at the sky,
"What for's it all turned into one big cry?"

The River Rhine.

[Translated from the German of G. B. Mendlesohn by PROF. GRANVILLE F. FOSTER.]

The German may well be proud of his river Rhine! Not, however, because of its size. Many other streams, even in Europe, excel it greatly in length, breadth, quantity of water and extent of region drained, but to none of them can there be assigned, as to this, so noble a symmetry, so complete a proportion, so perfect a development of form and beauty, and in not one of them can there be found united on the banks in such eminent degree, both art and nature—the memories of the past with the living realities of the present.

Amid the loftiest peaks of the mighty Alps, in the very central regions of the same, where glory and sublimity reign supreme, there hang, girdled within heaven-high barriers of rocks, more than three hundred glaciers, which contribute to the Rhine their overflowing, rushing, roaring, turbid torrents of water. Where they issue from the mountains they repose and purify themselves—these wild and impetuous children of the Alps—in some fifteen lakes of considerable extent, and of surpassing beauty, unfathomable basins of emerald here confined by inaccessible rocks, or there surrounded by vine-clad hills and by meadows of living green almost as interminable as the lakes are deep. Streams, crystal pure, issue from these lakes in swift and yet in already quieted currents. Finally all at length mingle in one river-bed and the Rhine is born, which now goes peacefully and yet powerfully surging along, through smiling fields, past noble and stately castles and lofty and magnificent domes, by lively and active cities—cities rich in the accumulated art of the past—cities busy in all the industries of the present—a river which bears on its bosom to the inhabitants of these cities rich and valuable cargoes from all parts of the world.

Out of the dim, blue mystical distance, lofty forest-clad hills nod from afar and mirror themselves in the beautiful stream, as the delighted traveler descends toward the sea. But now at length it reaches the great plain—wide, boundless, where it hastens toward the bosom of the sea, to contribute to it its mighty supplies of water and to build up within its watery realm, new made land.

The traveler meets at the source of the Rhine poor, but free and happy herdsmen. At its mouth he finds an equally free, but a rich and art-loving people—industrious in trade, enterprising in business—a people, too, who construct floating houses with which to navigate the most distant seas to visit the most distant lands.

What other stream has a Switzerland at the streams of its fountain-head and a Holland at its mouth? What other stream has its whole course through such a free and happy land?—a land, too, abounding in the most fruitful fields, and in landscapes of the most charming and picturesque loveliness? Do other rivers excel it in the quantity of water borne to the sea, in length, depth and breadth? Then does it excel other rivers in unsurpassing clearness and transparency, and in its fullness of waters which vary in quantity but little throughout the year? This last fitting it admirably for raft or ship, and for every purpose which the commercial needs of the people may make requisite, while at the same time its banks are not so far separated from each other but that a wink or a bow may be acknowledged from the opposite shore, or a loud call distinctly recognized across its waters.

Mighty enough to command respect and beautiful enough to fill the soul with the spirit of its loveliness, there it appears like a moving water-mirror bound in between frames of picturesque landscape, in contrast to mightier streams which look like huge watery deserts bound in by far-distant, indistinct, misty outlines of shores.

Grass Valley, Cal., May 11, 1889.

Mrs. Mary A. Woodbridge.

We present on this page a portrait of Mrs. Mary A. Woodbridge, the talented and popular Recording Secretary of the National W. C. T. U. It would be impossible, in a sketch as brief as this must necessarily be, to give a just estimate of the life and labors of this gifted woman. Born on the hardy New England soil of Nantucket, and of the lineage made illustrious by such representatives as Prof. Maria Mitchell of Vassar College, and the poet-preacher, Phoebe Hafford, she comes legitimately by her natural endowments. Her father, Capt. Isaac Brayton—a name which has about it a smack of the salt sea air, and a suggestion of the thrifty New England skipper—was a man of sterling character and ability, whose best traits have been inherited by his distinguished daughter. Her mother, who bequeathed to her her own tender, lovable and sympathetic spirit, was a sister of Prof. William Mitchell, the brilliant astronomer and amiable gentlemen. Under such careful guardianship she passed from infancy to maidenhood, the light and joy of home and the prodigy of the school-room.

At Ravenna, where her parents resided for a number of years during her girlhood, she became acquainted with her future husband, Frederick Wells Woodbridge, a respectable young merchant of that place. It was a case of mutual attachment. An early marriage was the result, and at eighteen she had assumed the cares and duties of wife and mother. The fruits of this happy marriage are two daughters, and a

ful reports of Union meetings, to take part in, or even preside over, local meetings; it was another thing to address, or preside over, monster meetings in metropolitan towns and cities. But with the enlarged demands and opportunities came enlarged capacities, and the enthusiastic consecration to duty which inspires her has enabled her to rise to the dignity of every occasion.

In 1878 her eminent qualifications suggested her as the one best equipped for the position of Recording Secretary of the National Woman's Christian Temperance Union, and year by year, down to the present time, her re-election has demonstrated her eminent fitness for the onerous position. In this capacity she is almost constantly in the field, lecturing before large audiences in various parts of the country, or by wise counsel strengthening the hands of her co-workers in the cause; now conducting a political campaign with pre-eminent ability and success, and now with equal ability and success conducting a newspaper.

In 1884, at the St. Louis National W. C. T. U. Convention, she was unanimously chosen Superintendent of the Department of Legislation and Petitions. She is also Secretary of the American World's W. C. T. U., in which capacity she attends the annual convention of the British W. C. T. U., where she will deliver an address.

With all these multifarious responsibilities and duties, she still finds congenial occupation in cultivating the domestic affections. Blessed in the love of husband and children who adore her, in a home made beautiful by flowers and books and artist's bric-a-brac,



MRS. MARY A. WOODBRIDGE.

son growing into young manhood, while an elder one early passed over to the great majority.

The cares of a home and family did not stop the mental growth of the heroine of our sketch, nor prevent her from enriching a mind preternaturally acute with the choicest stories of literature. Books, after her family, were her "next of kin." Her marriage had necessitated her removal to Cleveland, Ohio, and here, in her capacity of secretary of a literary club, she was brought in contact with the late President James A. Garfield, who was president of the club. Thus she was unconsciously, but effectively, preparing herself for the life-work which was awaiting her.

It is not supposable that a woman of such culture and refinement, and having such broad, clear and intelligent views of things, should not have had her sympathies stirred to their utmost depths by the gigantic evil of intemperance, and we are not surprised that her whole soul revolted at it, and that she early enlisted in the army fighting for its suppression with all her heart and great abilities. Very early in her life she was chosen president of a local Temperance Union, while residing in the town of Ravenna, and the ripening experience she gained in this, and similar experiences later on, fitted her for the high honors and responsibilities to which she was ultimately called.

Up to this time she had been abundantly equal to all the emergencies which duty had imposed upon her. The time came, however, when all her resources of courage, moral and physical, and all the acquirements of learning and experience which she had been quietly storing up, were called into active use. It was one thing to write grace-

with a most lovable disposition and troops of friends, she is a model wife, mother, housekeeper and Christian woman.

Man or Monkey.

There are people who are very sensitive on questions of genealogy. They are extremely anxious to have it known that they have descended from a certain line. Their chief element of pride is that they have come from their grandfathers. Sometimes this is their only ground for boasting. There are other people who prefer to think that they have descended instead of descended. We do not undertake to say which form of egotism is the more objectionable, though we are inclined to think that one who is on the ascending scale morally and intellectually is in a more hopeful condition than one who is descending.

The doctrine of evolution, with its intimation that man may have descended through some ancient form more or less closely allied to the monkey family, has been a source of some irritation to those people whose pride is mainly in their descent. They would rather think that they had degenerated from a mythically perfect man like Adam than that they had come up from some really imperfect chimpanzee who preceded him.

Perhaps he whose pride has been wounded by the evolution theory may be ignorant of the fact that there was a period in his own personal embryological history when it would have been impossible for anybody to distinguish him from the chattering ape or ugly baboon he derides. And, if in the space of a single lifetime he could develop into something very different from the animal whose relationship he disowns, it is possible that in millions of years the human race may have differentiated from the same type.

Darwin, Haeckel, and other prominent evolutionists have been particularly careful not to ascribe human derivation or line of descent to

any particular branch of the existing monkey family. Yet when, a few days ago, we saw the chimpanzee at Central Park sit down at a table with his food in a plate before him, and eat with a knife and fork, and drink from a mug, and wipe his mouth with a napkin, we felt that a very good argument might be made for the chimpanzee as the original Adam. Certainly, in his use of forks he was somewhat higher in the social scale than our Puritan fathers, to whom so many people are anxious to ascribe their origin. The fact that he wore through meal-time his keeper's hat was not due to his own lack of manners, but to the lack of manners of the keeper in putting it on. To be sure, after the food was removed, and the keeper had stepped into the adjoining room, the chimpanzee lost no time in jumping upon the table from which he had just taken his meal. But this seemed to us far more creditable than if he had fallen under the table in a state of beastly intoxication, like some of our English forefathers whose servants had to carry them out after the dinner. The chimpanzee seemed also to have certain physical advantages which have been sacrificed in the development of man. After his dinner, a large wooden ball was rolled to him by his keeper. In whirling it about his feet were just as useful as his hands. He reminded us somewhat of the professional gymnast, who lies on his back in the circus and keeps a large ball in motion in the air with his feet. What a valuable acquisition of agility and skill a trained chimpanzee would be in the great base-ball pines in the country! Indeed, we believe a cultivated chimpanzee nine could play two games of base-ball at once—one with their hands and another with their feet.

There are other situations in life in which the pedal accomplishments of the chimpanzee would be of great value. There is many an organist who would like to have as much facility in using his feet as he is able to acquire in using his hands. In nautical pursuits, in stringing telegraph wires, in the work of the fire department, in every occupation requiring agility, power to leap to a great distance, to climb a great height, to hang some time with the head downward, the accomplishments of the chimpanzee would be invaluable. His capacity for turning somersaults would be an admirable preparation for political life. So that much can be said in favor of the chimpanzee as a contemporary, if not as an ancestor.—*Christian Register*.

An Object in Life.

[Written for the Rural Press by M. E. TUTTLE.]

There is an ability rare and hard to describe, by which one person can attain to prominence and competency, while another, with just the same apparent opportunities, sinks into hopeless obscurity and indigence. All over the country we see farms side by side, yet one is fairly bristling with thrift and we can almost feel the breezy life and energy which seems to fill the atmosphere, while the other is steeped in lethargy and indolence and bears unmistakable signs of misdirected efforts or want of forethought.

It would certainly be a great thing for the world if this peculiar trait of character could be traced out and then propagated in the young. It is no doubt composed of several attributes, the most important of which is energy and industry combined with a subtle principle in the mind called common sense, which, by the way, is far from common. The ability to reason or to look at a subject from several different standpoints with unprejudiced vision and to grasp with almost intuitive judgment the effect or result of experimental action, is a natural gift; but still, with certain material, might be acquired or cultivated with satisfactory results.

The young man or woman who starts out in life with the earnest resolution to "have something and be somebody" has made a master stroke in policy, and if they unite their destiny in marriage, then so much the better for the resolution. They will not be miserly, for that would defeat their object in being "somebody" in the world. They will not be extravagant and snobbish, for then they could not gain and keep that competency which is to be an important part of their attainments.

The plain way to their destination would be to make the most of themselves possible. They would not trammel themselves with bad habits, which would blunt their sensibilities and make inroads into their savings, and instead of ostentation and show, they would substitute scrupulous cleanliness and refined taste. Their habitation might be the simplest cottage, but it would be adorned by nature's sweetest ornaments, fruits and flowers, and furnished simply and tastefully. Their amusements would be the most innocent, which brings no aftermath of regret and weariness, but leaves them bright and fresh for their daily tasks. The best part of their life should be their life at home, for I do not think there ever was an individual whose existence blessed humanity and who was loved and revered by his fellow-man but that grew up out of a home life of conscientious action and continued putting aside of self for the good of all. The world is but a larger family. And at last when they have succeeded in their object by honest endeavor, like the righteous man in Scripture, all things seem added to their possessions. Then to rest and think of duties done, of work accomplished, of pleasures temperately enjoyed, to feel that life has been a real success and to wait in ease and comfort for the end.

Watsonville.

Beware of Nagging.

Whatever else you do, young wife, don't "nag" the man you have married. Burn his bread, give him pinks and cake that you learned to make at the cooking-school, allow his heels and his toes the inestimable privilege of free ventilation, spend his money, if you can get it to spend; but, for sweet charity's sake, don't "nag" him.

A husband is a fellow-creature. He has rights which ought to be respected. And a fault finding woman is worse than a smoking chimney in a perpetual northeast rainstorm.

The nagging woman will meet her husband in the hall and open fire on him before he gets off his overcoat.

"James, did you get that braid I sent for? No? Well, I hardly expected you would. This is the third time you have forgotten it. Why didn't I write it down? Write it down? Dear me! If I was a man, and managed a business like yours, I'd see if I couldn't remember such a little thing as ten cents worth of braid without having it down in black and white.

"Now, James, I must speak to you about that sink pipe before I forget it. It leaks into the cellar. We shall all die of diphtheria and typhoid fever if that pipe is not attended to. I had the headache all night, and it must have been the gas from that pipe. No, James, it was not the cold cabbage I ate just before going to bed. Indeed it was not. How absurd you are!

"And there is Mary Ann so put out with the coal at the bottom of the bin that she declares she will give notice to-morrow. And dear mother just coming to make her annual visit, too!

"And the man that painted the front door was here yesterday with his bill. Such a bill! Ten dollars for painting a door! Why, I could have painted it myself for half that money.

"And oh, James, I do wish we could have stained glass in our hall, as the Joneses have got in theirs! I'm sure Jones doesn't make any more money than you do, and stained glass has such an aristocratic look. It impresses one, when one goes into a house, to meet it. Can't afford it? Well, I am not at all disappointed. I expected that is what you would say. That's what you always say when I have particularly set my heart on anything. It does seem, James, as if you sat up nights to study out how to vex and thwart me! Oh dear! how much better off a woman is not to marry. If I had only known as much before marriage as I know now—But there! it's no use to wish! James, if we can't have anything else like other folks, I should like you to wipe your boots before you step into the parlor. Of course, I don't expect that you will do so, now that you know that I want you; but I thought I would speak of it. Some men are so careless! But then, others are not. Now there is Mr. Roberts. He never carries in a grain of dirt, I've heard his wife say, time and again, and he puts on his slippers in the hall.

"James, the clothes-wringer handle is broken. Mary Ann declared yesterday that she'd never try to wring another rag of clothes with it. And I declare, James, you must speak to the milkman. The milk this morning was blue as the sky. Oh dear, I wish you would put down that newspaper long enough for me to tell you about it. Reading about Harrison's new appointments, are you? Well, do let them wait. There's been too much fuss about them already. I hate politics! A man is always reading politics when his wife wants to talk to him about household matters."

And then she goes out of the room in a pet, and slams the door behind her.

Don't be like her.—K. Thorn in N. Y. Weekly.

Chaff.

DR. REID, well known by his medical reports in the *Monthly Magazine*, was requested by a lady of literary eminence to call at her house. "Be sure you recollect the address," said she, as she quitted the room, "No. 1 Chesterfield street." "Madame," said the doctor, "I am too great an admirer of politeness not to remember Chesterfield, and I fear too selfish ever to forget number one."

LANDLADY: "Does the turkey suit you, Mr. McGinnis?" Boarder: "It is excellent, Mrs. Hashwell. I do believe that cook of yours could roast a side of sole-leather and make it tender and palatable. That is (feeling confusedly that he has made a blunder), I mean, of course, tender enough for me. I'm not—at all particular, you know. I can—er—worry down any kind of cooking, Mrs. Hashwell." Landlady (icily): "Thank you, Mr. McGinnis."

A PAISLEY minister was accosted once in the high street of that town by a poor-looking man. "Excuse me sir," he said, "I was aince a coo-feeder in a guid way before the ploory broke oot amang the kye, when I lost a'. Some o' my freends were thinkin' that, if I could jist get a beginnin' again, I wad dae weel, an' they hae been subscrib'ing to buy me a coo. Wud ye mind helpin' me awae?" The minister gave the man two shillings. It was evidently more than he expected; for, with an expression of great satisfaction on his face, he said: "I'm very much obliged to ye. Indeed, I'm extraordinary obliged to ye! Ye are the minister o' the Middle Kirk, are nae ye? Aweel, I maun come up some time and gie ye a day's hearin'."

YOUNG FOLKS' COLUMN.

Echoes.

[Written for the Rural Press by D.]

We wandered on the verdant hills,
One bright but wintry morn,
'Mid babbling brooks and rippling rills,
While playing bugle horn.
We stood beside a live-oak tree,
And looked far o'er the main,
And shouted "Echo" in our glee;
"Echo" came back again.

We tried our new-found friend to please
With flattery and praise;
He answered with the self-same ease,
That caused our pride to raise.
We changed our words, and thought to scold,
In cross tones talked to him,
He answered us in words as bold
And language just as grim.

We loudly laughed "Ho ho! Ho ho!"
And sang that sweet refrain,
"Echo, echo, echo, echo;"
'Twas echoed back again.
Remember this, then, girls and boys,
That what you say or do
In saddest hours, or brightest joys,
Will echo back to you.

Among the Fairies.

[Written for the Rural Press by NANCY JONES.]

Little Roselba had, oh, such great large velvety brown eyes! and with her eyes wide open and an expectant expression upon her countenance, she was always looking about for fairies.

When she was in the country visiting her grandma, or at the seashore for a few weeks' recreation, she was ever inspecting crevices of rocks, leaves, toadstools, old shoes, hollow stumps of trees, rusty old tomato-cans, sea shells, and everything in which there was the slightest possibility of finding one or a number of these little midgits.

So it happened that Roselba, with her mamma, papa and ever so many cousins, uncles, aunts and servants, went far away to Geyserland to make a tour of the country and take in all the points of interest.

Now Geyserland was a true Wonderland in itself. "Here, surely," thought Roselba, "I will get a glimpse of a fairy, if indeed there is or ever was such a thing as fairies."

One chilly morning, as the sun was just beginning to peep from behind a great mountain in the soft blue distance, Roselba (who was sleeping with her mamma and nurse in a big covered wagon) looked out from under the great buffalo robes and blankets with a cold nose and finger-tips; for the air was undoubtedly very frosty for the middle of August.

"Well," murmured Roselba, as she turned over, "I might as well give up all hopes of meeting fairies in this place, for I'm certain fairies must much prefer a warmer climate than this."

Presently a shapely little hand shook some dewdrops off a blade of grass upon Roselba's eyelids. Instantly Roselba's musings grew misty, and shortly she was going down, down, down, through the opening of an extinct crater, through dark by-ways and long passages, and behold! she stood in a golden chamber embellished in silver and precious stones. A tiny Queen called Dewdrop sat upon a throne. At sight of Roselba, she raised a golden cane and smote upon the floor. Instantly many fairies came from the different chambers and passages, formed in grotesque figures, and bowed and courtesied before Roselba, some standing quite on their heads.

Then a domesticated trained bear came from some remote corner, crossed the chamber and struck up a tune with his great paws upon an instrument wrought of silver (looking something like a woven wire bed-spring), and the fairies all danced the nimblest, funniest dances, and sang the jolliest, sunniest songs, making such faces and maneuvers; and one little fellow called Primp, winked and threw kisses at Roselba.

A bevy of birds sang sweet songs in a crystal cave near by, fawns skipped and jumped, while mice played hide-and-seek. Everything was so lively and perfectly enchanting. The instrument upon which the bear played they called Life, and said it was invented by Warmth and was calculated to make the earth dance, the waters recede, the flowers bloom, and all nature rejoice and greet the sun.

"Time! time! time! You must keep perfect time," the King (whose name was Gurgling Waters) would say to the bear. "If you do not keep perfect time, woe unto the people who are watching for me above; to them it would mean instant death."

These fairies were not all well behaved, some of them enjoying a little mischief occasionally, and as they meet few people, they make the best of the tourists when they come their way.

One little fellow with a pug nose was sitting in a corner, on a little stool, eating a sandwich he had stolen from a tourist's lunch-basket; another was chewing spruce gum, drawing up his face like the prize chewers at a dime museum; while another was smeared from head to foot eating wild gooseberry jam, for they really have something of our own "bad boy" in them.

Primp, who had fallen quite in love with Roselba, showed her a wig he had stolen from a titled English tourist who was trying to work himself into the good graces of an American heiress who was also doing Geyserland, and

might have succeeded only for Primp's timely interference of exposing the worthy gentleman in moonlight effects.

They also did a great deal of exploring through the bowels of the earth, and told of having been far enough to communicate with Chinese fairies, who mostly dwell in deep caves; but the Chinese fairies were much given to washing and were not very desirable companions. They took much delight in rowing about upon the subterranean lakes (which were of pretty blue, green and red waters), and bathing and fishing. They fished a great deal and lived principally upon fish, and they considered it capital fun to spirit the fish out of the fisherman's hamper as he was angling along a stream, puckering up his mouth for a grand trout supper. Sometimes they spirited something into tourists' pockets, too—yes, specimens of pretty things and curiosities; then the bewildered tourist would have to pay a fine for "attempted smuggling," and the fairy would stand behind a tree and shake his sides with laughter.

Their garments were mostly woven of wool in pretty patterns, trimmed with a lacy network of silver and gold. Handsome fur rugs adorned their chambers, and the hangings were rich and picturesque.

Master Primp wanted Roselba to stay with them, but the Queen vowed she would be happier with her own sweet mother. So the Queen fixed a costly jewel in Roselba's tresses, whereupon the King (Gurgling Waters) roared like a lion, and up they all went—in the shape of myriads of tiny rainbows—among mist and spray.

"The jewel! the jewel!" cried Roselba; "where is it?"

And when she told her mamma all about it, her mamma was very much afraid her darling had been dreaming. But Roselba is certain that it is all true, and that some miscreant stole the precious jewel the Fairy Queen had given her while she was still asleep, and that she was really and truly among the fairies.

GOOD HEALTH.

Health and Morals.

A writer in the *Providence Journal* makes the following remarks, among others, on the causes of vice and crime:

The relation of physical disease to immorality and crime is doubtless difficult to trace, but it is clear that in large degree it is that of cause and effect. We know that irritability, petulance and many other forms of ill temper are directly due to nervous disorders, and they increase in direct proportion to the increase of their cause; perhaps it can be shown also that anger, hatred, avarice, lust, and most, if not all, other species of immorality are due to physical defects. It is clear that the latter stages of intemperance, resulting in debauchery that at first would have been inconceivable to the unfortunate victim, are the result of diseased conditions of body gradually produced by indulgence; perhaps it is also true that there is a subtle connection between the earlier symptoms of a love for strong drink and inherited physical conditions. * * * Doubtless it will be said that man's power of will and sense of right are strong enough to control evil tendencies, and that guilt lies in not so controlling them. But the only proof of strength lies in its use. If a man does not use it, the presumption is that it does not lie in his nature to use it; that is, he does not really possess it.

Whether all this is true or not, it is certain that it is largely true. Our physical diseases are the cause of much of our immoralities and crimes. We are not likely to be much different from what we are at present until we change our wrong methods of living and regain our lost physical health. The real sin of man lies in neglect of the laws of health, which, disobeyed, force him into a course of action which is immoral and disastrous and compel him to travel therein at an ever-accelerating rate. What we need is a physician, if one could be found, who has skill enough to discover the ancestral taints and weaknesses of our bodies, which cloud our mind, dwarf our moral sense, weaken our will and cause our sins.

So far the *Journal*. Now while the foregoing is true to some extent, it is quite as certain that an awakened consciousness of man's essentially spiritual nature and moral powers has enabled many who had been deemed "hopeless cases" to rise up out of diseased and depraved conditions into the health, mental and physical, which is Humanity's true estate.

Without undervaluing the importance of learning and obeying the "laws of health," we must insist that a cheerful courage and a hopeful trust are the most potent medicines, while doubt and fear are depressing and killing. Although a locomotive jumps the track sometimes, with fatal consequences, it must still be borne in mind that the engineer plans and builds the engine in the first place, and often puts it in repair—the engine never creates nor medicates the engineer! An understanding of this truth lies at the root of the marvelous cures effected by "metaphysical" treatment and "Christian science." Man is a soul and has a body.

COCOANUT FOR TAPWORMS.—In this country, remarks an exchange, comparatively few people harbor that troublesome parasite the tapeworm. Americans are no lovers of raw meats—the com-

mon source of infection. There are a number of drugs held to possess qualities destructive to tapeworms, but most of them have been proved unreliable. Recently attention has been called to cocoanuts as a vermifuge. Prof. Pareasi of Athens, when he was in Abyssinia, happened to discover that ordinary cocoanut possesses vermifuge qualities in a high degree. He took, one day, a quantity of the juice and pulp, and shortly afterward felt some gastric disturbance, which, however, passed off in a few hours. Subsequently he had diarrhea, and was surprised to find that there had been expelled a complete tapeworm, head and all, quite dead. After returning to Athens he made a number of observations which were most satisfactory, the tapeworm being always passed and quite dead. He orders the milk and pulp of one cocoanut to be taken early in the morning fasting, no purgative or confinement to the house being required. A correspondent writes to the *Pharmaceutical Journal* that the cocoanut has been used as a vermifuge in India for probably 40 generations by the beef-eaters of the country, and is so well known there as a means of expelling the flat worm that he cannot conceive how information of the fact has not reached England before. When properly prepared and intelligently administered, he says it is equally efficacious with male fern, kousso, pomegranate root, turpentine, etc., while it is as pleasant for the palate as they are offensive.

DOMESTIC ECONOMY

The Rationale of Bread-Making.

The action of the heat in baking causes certain changes to take place in the starch, by which it is rendered soluble, and to some extent converted into another substance resembling gun, and known as dextrine. The outside of the loaf is altered to a greater extent, forming the crust. These changes have the effect of rendering the bread both nutritious and palatable; but to prevent its becoming a heavy, solid mass of dried dough, it must be "raised" or inflated with gas, so as to convert it into light, spongy substance which can be easily masticated and digested. The gas used for this purpose is always carbonic dioxide, and the best method to develop it in the mass of dough is to set up a vinous or alcohol fermentation by the addition of yeast. This substance is a most remarkable living organism, which, when introduced into the dough, begins to feed upon the starch, which it changes into alcohol and carbonic acid gas. Owing to the tenacious nature of the dough, the gas cannot escape, but as it expands renders it spongy and light. The heat of the baking oven still further expands the gas, and completes the process, at the same time killing the yeast and preventing further fermentation. If the fermentation continues too long, it passes over into the acetic variety, the alcohol is changed to vinegar, and the bread "sours." The alcohol produced in the process is nearly all dissipated in the baking, but it is an appreciable quantity, and some years ago a company was formed in England to introduce appliances for condensing and saving it. The method was found impracticable, but it created considerable excitement, and one baker advertised to sell his bread "with all the gin in it."—*American Miller*.

CHICKEN CUTLETS.—Trim the remains of a cold roast or boiled fowl into nice cutlets. Cut pieces of bread of the same size and shape. Fry the bread to a pale brown in butter and put in the warming oven, with door open to keep warm. Dip the cutlets in melted butter, mixed with the beaten yolk of an egg; roll in cracker dust, season with salt and pepper and fry for five minutes; serve each cutlet on a piece of bread.

BAKED IRISH POTATOES.—Slice Irish potatoes very thin, butter an earthen pudding-dish and put in a layer, cover with bits of butter, pepper and salt. Continue this until the dish is about two-thirds full; have plenty of butter on the top. Then fill up the dish with sweet milk and cover close; bake two hours in a slow oven; eat hot.

HOMINY MUFFINS.—One large cup of white flour, two teaspoonfuls of baking powder, two teaspoonfuls salt; mix together dry. Add two cups of cold boiled hominy, beaten smooth, three eggs, one-half cup of melted butter, two tablespoonfuls white sugar, and sweet milk enough to make a thick batter.

POTTED BEEF.—Take a solid lump of lean beef and put it in water sufficient to cover it; boil till tender and season with salt, pepper and summer savory; remove the water from the kettle, leaving about a cupful; cover tightly and let the meat steam until all of the water is absorbed.

OATMEAL GEMS.—Soak over night in one pint of sweet milk one pint of oatmeal. In the morning add two beaten eggs, two and a half teaspoonfuls of baking powder, one teaspoonful salt; bake in gem pans in a quick oven.

TAPIoca PUDDING.—One-half cup of tapioca soaked in one pint of milk three hours, add five beaten eggs, one pint of milk, one-half cup of sugar, a pinch of salt, a small piece of butter; bake one-half hour.

JELLY CAKE.—Two cups of sugar, one-half cup of butter, one cup of sweet milk, two eggs, three cups of flour, two and a half teaspoonfuls of baking powder; bake in a buttered cake tin.



A. T. DEWEY.

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Corrugated Iron—W. W. Montague & Co.
Rushford Wagons—Bull & Grant Implement Co.
See Advertising Columns.

The Week.

The advance of the season is marked by the arrival of new wheat in San Francisco—a carload from Tulare and another from Stanislaus—Friday, the 24th. This, it is stated, is the first time new wheat has reached the city in May. The weather generally has favored the ripening grain. Heat has not been excessive nor has the too frequent blast of the norther struck the tender kernels this year. Wherever moisture has been adequate for a good growth, the present prospect foreshadows a satisfactory output, but some regions have suffered from drouth, and smut has done some injury.

The fruit crop comes on apace and overland shipments by passenger train of carloads of cherries and apricots are going out daily. Large quantities of vegetables have also been shipped this spring. This year's overland fruit business promises to reach high figures.

Vacation indications multiply, courts are adjourning and lawyers and judges are laying in stocks of fishing-tackle and snake-bite antidotes. The summer resorts are brushing up

their attractions. Several leading private schools have "commenced," and soon the public schools will loosen their grasp upon the restless youth. Those who desire will probably find both recreation and pin-money in the fruit harvest.

The Market for Dried Grapes.

Though there are some indications of an improvement in the outlook for California wines, it does not yet seem that improved conditions will appear soon enough to elevate wine-makers' views of the value of this year's crop of grapes. There is, of course, some little time before the question will press, but it seems altogether probable that a considerable part of this year's wine grapes will have to be dried.

An important meeting of the Vine-Growers' Association, held in this city on the evening of May 24th, shows that the committee, acting in harmony with the officials of the State Viticultural Commission, is doing energetic work toward ascertaining just what may be expected from the distant demand for dried grapes.

The committee reported that during 1888 Eastern shipments brought prices ranging from 3 to 4½ cents per pound, according to quality, packed in white cotton sacks, and that these grapes have gone into consumption among the bakers, restaurant and hotel men, in lieu of the cheap Valencia stock. It is believed that the demand from the East can be largely increased.

The committee's investigation further reveals the fact that France is a large consumer of dried grapes—perhaps the largest—and that Bordeaux is the receiving-point for importations. The question then presented was, "Can Californians export dried grapes to France with profit to the producer?" The only way to settle this question is by practical tests, and the committee recommends that growers make up a quantity of not less than 50 tons of dried grapes, to consist of 25 tons of Zinfandel and 25 tons of Mission, to be placed in the hands of responsible commission merchants and forwarded to Bordeaux; that the shipment be made by the cheapest freight and earliest practicable moment; that the grapes be packed in sugar barrels, pressed in compactly, as they will carry better this way than any other. The returns from this consignment will enable the producers to determine whether or not they can forward dried grapes to France with profit to themselves.

In the discussion following the report of the committee, Mr. Wetmore deplored the lack of interest in the subject by the producers who are to be benefited. Mr. Turrell suggested for discussion at the next meeting of the association the following resolution:

Resolved, That a committee of five producers, practically interested in drying wine grapes, be appointed with full power to organize a co-operative union among all growers who intend to dry their grapes this year, such union to perfect plans for receiving in depots all dried grapes offered and to employ agencies to dispose of the same.

The discussion proposed for the June meeting was agreed to, and the committee will continue its investigations and report at the same time.

A United West.

Colorado deserves the thanks of the States and Territories on the Pacific Coast for its efforts to secure Government aid in redeeming the arid, desert lands by means of irrigation reservoirs. The first convention of the West to consider that subject was held in Denver, about one year ago, and as a result of that convention the Government has sent out explorers to locate sites for these reservoirs, and Congress has made an appropriation for this work. Now Governor Cooper of Colorado proposes that Western States hang together in irrigation and other kindred matters regardless of politics. He suggests that there are certain broad subjects in which all the West takes interest, but which have no pertinence in the East. Although politically divided, yet both parties combine when a measure is introduced which is beneficial to their section, and they get about what they want while the West goes begging. The number of Western States interested in irrigation have a representation in the electoral college nearly equal to the State of New York, which will give them influence whenever it is felt that they will vote together where their own interests are concerned. Such a course would secure nearly every improvement we need, and bring in a crowd of home-seekers which would increase our power in the Union.

The Bench Show.

The display of dogs, poultry and pigeons, under the auspices of the Pacific Kennel Club, which was just opening in the Mechanics' Pavilion as the Rural went to press last week, remained open four days and nights, and proved very interesting to those who attended.

We dropped in several times while the show was in session and enjoyed strolling among the benches and making desultory notes—many more than we can afford space to print.

As one drew near the entrance of the building, there broke upon the ear an inharmonious medley of yelps, barks and howls not unlike the sea-lions' chorus at the Cliff House, punctuated with cock-crowings from the poultry annex.

Arrived within the portals, we found the benches supporting the dog-pens conveniently disposed in four rows running lengthwise of the hall. The pointers and setters stood foremost, in nearly equal numbers (87 entries, all told), constituting more than a third of the canine forces. Those charming red Irish setters, "Lady Elcho" and "Mike T.," which took the highest honors a year ago, were again exhibited by A. B. Truman, and again, together with their offspring "Dash T.," pronounced the finest of their breed. There was also a handsome showing of English setters, among which Judge Graham gave the preference to Thos. Higgs' "Rover" and to P. D. Linville's "Florine," whose beautiful domed head, black and tan, with a white stripe down the middle, was very striking. Fred Tafts of Truckee again exhibited the veteran Gordon "Dorr," now in his 14th year, who delighted the spectators by his performance as a trick dog.

Of all the choice pointers, G. W. Bassford's lemon and white "Blossom" fascinated us with her pleasant, friendly ways; and besides, critically viewed, she was the very best heavy pointer bitch in the pavilion.

Next to the bird-dogs, the greyhounds were largely represented, and there were a few stag and fox hounds also.

There were more than a score of those trim little favorites, the fox terriers; half a dozen black-and-tans—the most noticeable being Dave Eisman's slim and sleek little "Dixie," weighing but a pound and an-ounce; and 8 or 10 of the "blue" Yorkshire terriers, with their long flossy coats nicely groomed, and in some cases quite hiding their eyes; and a sprinkling of rough-coated varieties, with a few dachshunde, beagles, poodles, retrievers, faithful collies, and several spaniels, than which none were more attractive than H. P. Rennie's black cocker "Giffie," a civil, sociable little beastie who quite won our heart.

Then among the curios there were Mr. Roos's queer, unclassified Mexican morsel, "Chihuahua," and Mrs. Zammit's Esquimaux, "Wolf, Jr."

On the opposite side of the floor were ranged the mighty mastiffs, mostly fawn-colored with black muzzles—Rich. Scott's "Dick" and Mrs. Preston's "Actress" wearing the blue ribbons—and Perham Nahl's Great Danes, with a few St. Bernards and Newfoundlands intervening—Mr. Manning's "Judge," which attracted such favorable notice last year, being again honored.

William Graham, whom the P. K. C. brought all the way from Ireland to judge the dogs, did his part with a quiet, keen and brisk intelligence which "won golden opinions from all sorts of people," barring some few malcontents.

Bat besides the 229 canine entries (some of which included half a dozen winsome puppies under a single head), there was a choice and fascinating array of feathered bipeds, set apart by themselves under the South gallery.

The pigeons—called for brevity the Columbarian division—are treated of on another page by an expert contributor.

The cocklers embraced 111 entries of pairs and breeding-pens, by well-known poultry-folk. There were magnificent Brahmas, both light and dark; Langshans, both black and white; plenty of splendid Partridge-Cochins, and a few of the buff and the white; Dorkings; spangled Hamburgs; lots of Leghorns, white, brown and black; the funnily-hooded Houdans and big-wigged Polish; slender, lithe-looking Game fowl; dainty Bantams of various sorts; black Minorcas and Javas; Dominiques; sundry strains of Wyandottes and Plymouth Rocks, and

the curious Mino-Hikis—the cock's long, black tail-feathers trailing all about the coop.

Then, to complete the list, there were single coops of Bronze turkeys, Toulouse geese and Rouen ducks—the last-named being very much absorbed, at the time of our visit, in endeavors to catch every fly that invaded their quarters. Hoping to publish the poultry awards in a future issue, we refrain from further particulars to-day.

The Pacific Kennel Club, we are sorry to hear, is somewhat out of pocket by the show; but they are certainly to be congratulated on their admirable exhibition, which, otherwise than financially, was a brilliant and pleasing success.

The Modern Advertiser.

Enterprise wins. Those who are contented to do things in the old way may keep up with the average, but they can never expect to lead them. Some of the largest merchants in the country, like Wanamaker, started small but advertised judiciously and persistently until they towered above all competitors. The leading stores and advertisers of the country employ a man at a good salary for the express purpose of writing their advertisements. One of the pioneers of this wide-awake advertising had the mysterious sentence "S. T. 1860 X" widely displayed, which men tried in vain to decipher, until it was interpreted, "Started trade in 1860 with \$10." This was a fact, but a fair proportion of that amount was spent in advertising which was increased as the returns came in. Advertising is a fine art; many of the pictures and cards issued gratuitously for advertising purposes are handsomer than those which our grandparents purchased to ornament their walls. A great deal depends on catching the popular fancy. A prominent San Francisco paper has adopted the scheme commonly used in the East of announcing the baseball scores as telephoned from the field, and blocked one of our main thoroughfares by a crowd anxious to know the results. An Eastern advertiser, seeing that the "Pigs in Clover puzzle" was the fad, put five young pigs in a window, where the circular windings of the toy were introduced, and hired a messenger boy to drive them into the pen. This was a great attraction. It is hard to do business in the United States without doing something to attract attention. Unless our attention be called in some marked degree, we are sure to be captured by the gaudy flies on the hook of the veteran advertiser. While various devices are employed, the shrewd manager never neglects the papers. He knows their influence, and whatever else he may do he intends to keep his name in the public press.

NO ESCAPE FROM LABOR.—The motto, labor conquers all things, might be changed to nothing without labor and be equally true. There is a foolish desire on the part of American youth to avoid work, or at least what is termed hard work, but no one need expect to succeed without work and plenty of it. That which appears easy looks differently when we can get at the actual facts. Many, tired of farming amid the stones and stumps of New England, come to California, buy an orange grove or a fruit farm, and imagine that all they have to do is to sit down and watch their fruit grow. They soon learn, however, that the scale attacks their orange and nearly every variety of fruit has its pest. We are not saying this to discourage the would-be immigrant, for it is not to be compared with the endless work and small profit per acre of Eastern farming, but we believe it is better for one to know the difficulties before he enters upon them. He will be surer of success. The successful California producer has work before him.

SEEDLING FIGS.—The growth of seedling fig trees from the seed of the imported Smyrna is employing the leisure of some of our fruit-growers, and the effort is interesting and promising. The Placerville Republican speaks of the enterprise of A. Ryder, who, like E. W. Maslin, another fruit-grower of the same county, is an experimenter with fig seedlings. Mr. Ryder has 135 fine young seedlings which are growing from the seeds of a box of the best imported Smyrna figs he could obtain in New York. There is every reason to believe that these experiments with trees from the imported seeds may soon give us a new fig which will be in every way superior.

Pigeons at the Bench Show.

[Written for the Rural Press by A. P. THEOBALD.]

The San Francisco Pigeon Society may be congratulated on having conducted the largest and best exhibition of pigeons which has ever been held on this coast.

The birds entered were, speaking generally, particularly high class. The competition, too, was, in most instances, very keen, for, although not many of the recognized classes were represented, the entries were, in baseball parlance, so well bunched as to make the judges' office no sinecure.

A word of praise must also be given to the excellence of the arrangements for housing the birds, the wire cages of the Pigeon Society presenting a neat appearance which added not a little to the attractiveness of the show. The pigeons drew their fair share of the visitors to the combined exhibition, and the society sees reason to hope that a considerable impetus has been given to the local breeding of fancy birds.

Coming to a consideration of the different classes, there was a distinctly good though not a large exhibition of Pouters. G. T. Marsh's pair of whites were very fine and decidedly up to first prize form. A red hen in this class, also the property of Mr. Marsh, deserves mention as one of the best-marked birds in the show.

The English Carrier class was not up to the average. The pair of reds belonging to G. F. McConnell of Ashland, Oregon, were good, but did not show to advantage on account of the long journey they had recently made.

A. N. Bayley's short-faced Tumblers were a good pair, but better adapted for breeding stock than for show purposes, the bad points in one bird being counteracted by similar good points in the other. Mr. Marsh was again to the fore with his pair of long-faced Tumblers. They thoroughly deserved their place.

J. D. Bryan's Birmingham Rollers were only fair, but with the young shown with them made a pretty exhibit.

Mr. McConnell's yellows with white tails were good birds and made a pretty combination.

The exhibit of Homing Antwerps was first class and numerous. H. H. Carlton's red chequers deserved their place. The cock of this pair, "Old Sol," was one of the few successful birds in the flight from Soledad to this city, a distance of 116 miles. Mr. Carlton won another first in this class with his pair of white with black tails—a novel combination of color in the Homer line.

The fine Homers of F. Magee were especially successful, he carrying off three first prizes—one for black chequers, one for blue chequers, one for winner of old birds' race from Soledad, in addition to winning the special silver cup for the best built chequer cock in the show.

A. N. Bayley won a first prize for the best marked pair of blue chequers, though Mr. Carlton's pair were a close second, and there was little to spare between the two sets. The pair of blues, belonging to Mr. Marsh, carried off first and special prizes. These birds were lately imported from the Vowerman loft and each has a record of 520 miles.

The young champions of the Homer class, perhaps, attracted more outside notice than any other exhibit. These were birds hatched in 1889 and had all made a distance of over 40 miles. The special prize of \$10 offered by the Pacific Kennel Club went to Mr. Marsh, his bird having the record of the United States for its age—two months and 20 days—flying from San Jose to San Francisco in one hour 58 minutes.

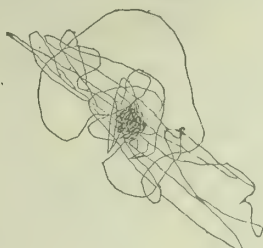
In the Barb class, Mr. Carlton's Blacks deserve special mention. They were quite up to first-class form and as good as any pair in the show. The Dams, also Mr. Carlton's, were younger and consequently showed to less advantage. The Yellows, the property of J. D. Ladd of Vacaville, which secured second honors, were fair but a trifle coarse. Newton Knox's Whites were a fair pair and looked worse than they should have done from being out of condition.

The Owls were a particularly strong exhibit, no unfair birds being shown. This class was almost monopolized by Mr. Bailey, who won no less than four well-deserved first prizes for Blue Chinese, Silver Chinese, Silver African and White owls. The neat pair of Red Africans

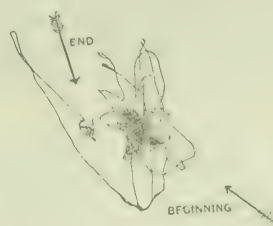
(Carlton) were also well up to first-prize form.

The largely represented class of Fantails brought Mr. Marsh again to the fore, his five White pairs winning five first prizes, and every bird well deserving its rank. The Yellows (Bayley) were very good birds. McConnell's Blacks were hardly up to the standard of the Whites. Carlton & Bryan also exhibited Blacks, carrying off second and third honors respectively, but both pairs were below the high form of the Whites. Marsh was again successful with a pair of Blues, a pair above the average though their tails were broken. Mr. Connell's pair of Blues well deserved second place, the tail being good but off in color.

A young white Fantail belonging to Mr.



Blinn Observatory.



Chabot Observatory.

SEISMOGRAPH RECORDS OF SUNDAY'S EARTHQUAKE.

Marsh attracted considerable attention by its tameness while out of the coop and wandering around at its own pleasure. The bird is particularly interesting to fanciers on account of its perfect shape. The tail is not yet fully developed, but the youngster has the making of the best bird yet in the State.

McConnell's one pair of Runts attracted considerable attention on account of their large size. The pair weighed four pounds.

Two first prizes and one second in the Trumpeter class went to Philander Williams of Taunton, Mass., who exhibited three pairs of Russians. McConnell's two pairs of Trumpeters fairly deserved the two second prizes they won.

The exhibit of Jacobin's was eminently satisfactory, and made one of the handsomest classes in the show. The pair of Reds exhibited by Carlton deserve strong commendation. These birds, valued at \$100, were imported from the famous Crawford loft. They are perhaps not good show birds, but owing to the bad points in one being counteracted by the good in the other, are the finest pair for breeding purposes in the State. Mr.

Marsh had a notable triumph in this class, winning no less than five firsts for pairs of reds, blacks, yellows, strawberries and blues, and a special for a pair of whites. This prize, awarded for the handsomest pair on exhibition, was decided by the votes of visitors to the show. Two third prizes went to Mr. Bryan for good pairs of blacks and reds.

Mr. Bryan was again successful in the Dragon class with a pair of imported Germans, though



THE OLD PROSPECTOR.

The entries in the Turbit class were disappointing. McConnell's yellow-winged pair were very fair and pretty birds.

Bayley's Magpies, a pair of imported blacks, carried off the first prize, with little to spare from McConnell's. The yellows (Bayley) in this class lost first prize on account of condition.

J. D. Ladd's Nuns were a good pair quite up to first-prize standard, but both being males, they could not compete for a prize.

The Archangels of Jesse W. Bryan, a pair with young, took a first prize, though the birds, being considerably in molt, did not show to great advantage.

Mr. Carlton's pair made a good and close second. Carlton's pair of young birds secured a third prize.

In the Starling class a cock of Mr. McConnell's won a deserved first. The hen had escaped on the way down and it was felt that the accident ought not to deprive him of a prize, particularly as he had been put to much trouble and expense to have his birds in place.

The awards were made by H. F. Whitman, a gentleman of large pigeon experience and well known in Eastern fancier circles. The exhibitors had thorough confidence in his judgment, and have no reason to complain of the correctness of the decisions.

The Recent Earthquake.

Early on Sunday morning, May 19th, an earthquake of unusually great duration occurred in this State which was felt from Santa Cruz on the south to Calistoga, and eastward to Nevada City. The shock was not a sharp one, the movement being slow, but the vibrations were prolonged. Prof. Holden of the Lick Observatory, Mt. Hamilton, says: "Our earthquake machine shows the up-and-down movement lasted 84 seconds. The period of each wave was about 1.7 seconds, which is very gentle and slow, and the double amplitude of the vertical waves was never more than .08 of an inch. The east and west movement consisted of strong tremors for nearly four seconds, when the waves began and lasted as strong decided movements for 29 seconds, after which the tremors continued until their trace was lost. Ninety seconds after the beginning, the periods of these waves is .8 of a second (very slow) and the double amplitude is about .03 of an inch. The most remarkable motions were in the north and south direction. The tremor was felt for 3 seconds, 10 large waves for 45 seconds succeeded by tremors until 132 seconds from the beginning. Their period was .6 of a second. The double amplitude is .05 of an inch. The duplex machine shows results agreeing with the above and indicates the very complex nature of the motion of the ground."

Through the politeness of Mr. Blinn, of Highland Park, East Oakland, and Mr. Burckhalter, of the Chabot Observatory, Oakland, we are enabled to reproduce the registers made by their respective seismographs. The seismograph is an instrument by which a pendulum communicates its movement to a pen which records it upon a plate of smoked glass, and from the lines thus traced a sunprint is made. These lines are shown in the engravings presented herewith. It will be seen by reference to these that the movements were a series of ellipses. In the diagram made by Mr. Burckhalter's instrument, the first of these were north and south, and the last from southeast to northwest, while the final mark was a swerve to the northwest before the pen came to rest.

The marks made by Mr. Blinn's seismograph are northeast and southeast, and the register is double the size of that of the Chabot Observatory. In fact, this is ten times longer than any other record ever made since the instruments have been in position. The diagram represents the motions of the earth, but amplified four times. The actual motion was thus one quarter of that indicated. We had a very sharp shock on the 18th of last November, but there was ten times more motion in this case.

The time as given at the Chabot Observatory was 3 h. 10 m. 44 sec., when the mean time clock was stopped. At the Davidson observatory in this city there was a difference of only two seconds. Prof. Davidson timing it as 3 h. 10 m. 42 sec. Clocks were stopped in many places in this city and Oakland. The peculiar feature was the length of the vibrations. It was the most severe in that respect felt here for many years, but its slowness was such that no damage was done anywhere within the area affected.

The Old Prospector.

Many a man now wholly given to agricultural arts began his California life as a prospector and can entertain you by the hour with reminiscences of his tramp over desolate places in search for precious metals. All such will be interested in the life-like picture we give on this page. It is a photo-facsimile of a photograph from life made not long since in one of the mountain counties. The "Judge" who is handling the pan is a veritable "49er," who still sticks to prospecting as an occupation. The scene is a characteristic one in the California mining counties. The old man was digging away on the edge of the bank of the river with perfect contentment, while the photographer who was immortalizing him was nearly melted by the fierce rays of the sun which were beating down with 106-degree power at the time. He seemed surprised that any one wanted to photograph him, but was pleased as well when one of the "pictures" was promised him.

This particular prospector, it is remembered by the writer, had not been "in the city" for 20 years. He had been digging away in the creeks, canyons, rivers and on the mountains

and hills for so long that he cared for no other life. But his is by no means an isolated case. There are hundreds of others as well contented to remain away from the centers of civilization, and who are wedded to the nomadic but free life they have led so many years. They are perfectly contented, being constantly buoyed up by the hope of striking it rich some day.

But the chronic prospectors are few compared with the thousands who have temporarily packed the pick and shovel and pan and have afterward sought livelihood in other pursuits. City and country are full of old-time prospectors whose rugged life in the open air has given them strength and health for long years of usefulness in other industries, and in the gaining of these blessings the years of prospecting were not spent in vain even if not directly profitable otherwise.

From Northern Kern.

EDITORS PRESS:—When we homesteaded in the foothills about a year ago, we had a conviction that this region is especially adapted to horticulture and viticulture, and the letter of Prof. Hilgard on this subject, which you published some time since, corroborated the conviction.

We took up our claims with the view of making horticulture and viticulture our business, and therefore planted a large number of grapevines and fruit trees, among which the olive figures conspicuously. Our plantations are flourishing to our satisfaction, and although we have to water them in this their state of infancy, we feel confident that this task will soon become unnecessary, perhaps even next year.

We also tried wheat, and could show 60 acres of that grain as fine as any until the dryness of April induced, rather than compelled, us to cut the wheat for hay, the possession of eight horses making that staple a necessity.

We have also planted forest trees on a small scale and intend setting out eucalyptus trees next spring in large numbers, having no doubt whatever that industry and judgment are the only requisites for the success of our enterprise. The chief drawback is the great depth to which one has to dig or bore to get water. We have dug down 132 feet without finding any trace of water, and expect to have to go 100 feet deeper to accomplish our purpose.

Have any efforts been made in the State to introduce and cultivate the tea plant? If feasible, this would open a rich source of revenue for the farmer, and you would greatly oblige me by stating in one of your nearest issues whether and where a few tea plants could be obtained. If no attempt has ever been made, I should deem the subject worthy the attention of such a man as Prof. Hilgard, and you would surely earn the gratitude of many of your readers if you could induce him to give them a paper on the subject. With the assurance that the arrival of the Rural Press is always a treat to us,

RUD. LEONHART, SR.

Delano, May 22, 1889.

MR. BURKE'S SALE.—The auction held at Mr. Frank Burke's Menlo Park ranch, on May 18th, realized extremely low prices. The draught brood-mares and colts, mostly yearlings and two-year olds, averaged \$145 a head; the Polled Angus cows \$75 a head—the total amount realized, including the farming machinery for a 2300-acre ranch, being but \$8500. Mr. Burke desires us to correct the impression that has gone abroad that he is going out of the stock business, and states that he still intends to raise trotting stock, Holstein-Friesian cattle and Berkshire pigs, and merely closed out the heavy draught animal line and the beef-producing Polled Angus, as he has given up general farming for the present. He was obliged either to buy more land or sell out these two branches, and chose the latter course.

HE GETS HIS HOMESTEAD.—Assistant Secretary Chandler of the Interior Department has just reversed a decision of the Commissioner of the General Land Office in the case of Dominio Morrettini, whose final proof for a homestead entry of land in section 18, township 12 north, range 16 east, Sacramento district, had been rejected on the ground of non-compliance with the law in regard to the place of residence. The claimant offered as an excuse that the snow was so deep in winter that he had to vacate and remove his cattle and other stock to the foothills. He returned, however, every spring, and continued upon his homestead until the following winter. The assistant secretary thought he had acted in good faith and ordered the issue of a patent to him.

STANFORD UNIVERSITY.—Inquiries come to us, now and then, with regard to the date of opening the Leland Stanford, Jr., University; the cost of living there, etc. Mr. Nash, Secretary of the Board of Trustees, informs us that the University will probably be open for pupils in about a year from now; but no details have yet been definitely settled.

RATS AND SUNFLOWER SEEDS.—A story comes from Washington that Capt. Weedin at the "Zoo" has accidentally discovered an irresistible rat-bait in sunflower seeds, the rodents fairly crowding the traps thus baited.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

BARLEY.—Haywards Journal, May 25: Schwable & Benter have a number of fields of fine barley, but the best 30 acres in this valley is early-sowed chevalier near Mt. Eden Station. Mr. Schwable examined a number of the heads this week and counted 40 kernels in each head. Those who have looked at the field admit that it is the finest-looking grain seen this year.

Fresno.

FRESNO RAISIN CO.—Republican, May 24: The raisin-growers at Oleander have organized to pack their own raisins. One-fifth or more of the stock has been taken. Stock will be issued to actual fruit and raisin growers only. The following officers have been elected for the first year: Pres., O. B. Olufs; V. P., A. C. Bryan; Sec., C. A. Libby; Treas., Farmers' Bank of Fresno; Directors, J. W. Brooks, A. C. Bryan, O. B. Olufs, C. A. Libby, C. A. North, Capt. Robertson and E. J. Wilson.

Kern.

HARVEST HOPES.—Echo, May 23: Everything now points to the greatest harvest in Kern county that has ever been known. In the irrigated portion it goes without saying that the harvest will be a full one. Out on the plains, above and beyond the canals, there will be some crop. Up in the mountains and foothills the most flattering reports are given. Wheat and barley, the principal crops, are heading out, the earliest sown is ripening and all promises a big yield. As these sections are not subject to the north winds of the lower San Joaquin and Sacramento valleys, nor to the scorching east winds that sweep up along the coast, there is little to be feared before the grain is harvested.

Lake.

HOME CANNERY.—EDITORS PRESS: At the foot of Blue Lakes and near the famous Bachelor valley in Lake county, Mundy & Wambold are building a \$2000 cannery. One of the firm has spent two years at San Jose and Vacaville learning the business, and operated a still smaller cannery long enough to have secured a fine home reputation for his goods. The other member is an old orchardist and gardener. As the lake recedes they follow it up with their gardens and so keep one crop following another. They propose to work 20 hands and put up their fruit and vegetables the same day they are gathered. They can none but extras, drying all inferior stock. They use heavy syrup, and all who have bought their goods once want them again. They will depend on home custom and orders from city visitors for their trade. It is a business proposition.—F. S. CHAPIN.

Los Angeles.

THE LAGUNA IRRIGATION CO. has filed articles of incorporation at Sacramento. The principal place of business is Los Angeles, and the capital stock \$70,000. Directors: L. T. Garnesey, T. W. F. Richards, W. H. Goucher, E. A. Hall, G. W. King, D. Burbank and H. L. McNeil.

Mendocino.

AGRICULTURAL ASSOCIATION.—Ukiah Republican: The Board of Directors of the 12th Agricultural District Association convened at the Grand hotel, Ukiah, on Monday, May 20th, Pres. L. G. Simmons presiding, and Sec. Q. V. P. Day, and members M. Keatinge, L. F. Long, F. O. Townsend, John Mewhinney and J. M. Mannon present. The financial report of the secretary showed a deficiency of \$420 71 for the year 1888. The following officers were elected for the present year: Pres., L. F. Long; Sec., S. H. Rice; Treas., S. Wheeler; Ass't Sec., Carl Purdy. The salary of the secretary was fixed at \$100 per annum, and that of Ass't Sec. at \$50. Bond of secretary and treasurer each fixed at \$2500. The following were made Executive Committee for the present year: Long, Townsend, Mannon, Mewhinney and Keatinge. Time of holding the next annual fair set for Oct. 1st to 5th inclusive.

Napa.

DISTRICT FAIR.—Vallejo Chronicle, May 17: The Board of Directors of the 25th Agricultural District, comprising the counties of Solano and Napa, met in Napa City Thursday to fix the time and place for holding the next fair; also to elect officers. Napa was fixed upon as holding the next fair of the 25th Agricultural District; the premium money allowed by the State is \$3000. This will be spent wholly in Napa county. We earnestly hope the fair will be a success. We shall ask to have it next year, and shall expect from Napa people the same good wishes. Lee James has been elected President vice Fred W. Loeber.

Placer.

STRAWBERRIES.—Auburn Republican, May 22: G. W. Haines of Christian Valley has made a specialty of strawberries for several years with splendid success. This year he has been experimenting with different kinds, and last week brought in magnificent specimens of six varieties. They were the Triumph, the Sharpless, Capt. Jack, Monarch, Forest Rose, and Manchester. The last two are new varieties in that part of the county and, according to Mr. Haines, the most valuable. The Sharpless is a good berry for the local market, but a poor shipper. The Captain Jack is a fine shipper, but it is sour. The Triumph is a shy bearer. The Forest Rose is a good "all around"

fruit, but the Monarch was thought by Mr. Haines to be the best until he found the Manchester. This last is solid and firm, sweet, large, and a fine berry to ship. He thinks it promises to be the best of all.

San Benito.

EDITORS PRESS:—The weather is fine for the growing grain. Generally speaking, the grain crop will be good. The late rain has been a great benefit to the whole county. There have been a large number of trees planted this season, which are making splendid growth.—G. B. Hollister, May 13th.

San Bernardino.

MOUNTAIN APPLES.—Chino Champion: Jas. Birch of Yucaipa visited Chino on Tuesday. He brought with him some Wine Sap and Nickajack apples, figs, of his own raising and curing, and a sample of his own make of elderberry wine. The apples are solid, and would keep to July or later. They are grown at his home, at an elevation of about 4000 feet, to the east of San Bernardino. The Champion has before mentioned this fruit, but it can hardly be done too often, for there is a too prevalent idea that California apples are inferior. This is in a degree true of those grown in the valleys, but the San Bernardino and San Diego county apples are not excelled in flavor and keeping qualities in the United States, and Mr. Birch has realized over \$300 per acre from his trees, ranging in age from 8 to 12 years. His cherries are equally good and more profitable. The successful growing of figs at so high an altitude is news to some people.

San Joaquin.

WEST-SIDE PROSPECTS.—EDITORS PRESS:—A clipping in a late Rural from the Stockton Independent so overestimates our West-Side prospects, I am impelled to send a correction. I have never thought whether under or over estimating was for the farmer's interest, but I like to see those who report such things pay a careful regard to facts, and the fact is, no great expectations have here been indulged in the past two months. The season set in most auspiciously, as I think I wrote you; then a long dry spell retarded the growing grain and caused considerable anxiety. Spring showers revived our hopes, but were not sufficient to insure a heavy crop. Late hot weather seems to have shrunk most of the grain, and while we thankfully hope for considerable above expenses, it will fall short of the years '76, '81 and '86, to say nothing of that wonderful '72, the hope of a repetition of which has been like a delusive mirage before our eyes these many years.—MRS. J. M. K.

Santa Cruz.

AGRICULTURAL ASSOCIATION.—Watsonville Pajaronian, May 23: The Pajaro Valley Agricultural Association met at the town hall Tuesday P. M. There was a large attendance. Pres. Waters called the meeting to order. The present Board of Directors (Messdames A. P. Roache, G. B. Card, B. A. Osborne, H. S. Stipp, and A. A. Libbey, and Messrs. Jas. Waters, G. W. Sill, A. N. Judd, A. P. Roache, N. A. Uren and H. S. Stipp) was re-elected. The organization of a new Association of District No. 24 was then discussed. It was decided to continue the old association as a separate society, and to memorialize the Governor to appoint Messrs. Waters, Judd, Sill, Stipp and Roache as Directors of the new association, so that both might work in unity. The name of Mr. Uren was not included because he is not a resident of District No. 24, and the ladies were omitted as they were not eligible. The association then adjourned and the Board of Directors met. They organized by electing James Waters, Pres.; Mrs. E. Z. Roache, V. P.; G. W. Sill, Sec. It was decided to open the next fair Sept. 11th, and continue four days. Treasurer Uren's report showed a balance on hand of \$609.38 on Feb. 1, 1888; receipts of last fair, \$1616.70; total, \$2224.08. The disbursements for the past year, including premiums and fair expenses, were \$1663.45, leaving a balance on hand of \$560.63.

AT THE BEET FACTORY.—Several additional hands have been put on at the beet factory this week, and work is being pushed to have the machinery in readiness to start up on June 7th. The first work, after starting, will be to boil the syrup stored from last year. The work of well-boring has been finished, and Sup't Waters feels confident that the large well will continue to give a big supply of water throughout the season. The well is 90 feet in depth and five in diameter, and the water rises to near the surface.

BERRIES.—Several Chinese companies are engaged in the business of raising strawberries in Pajaro valley this season. Their fields are a portion of the cleared slough land east of town. Thurber & Co. are shipping over 100 chests per day, and other growers are making proportionately large shipments. It is probable that the daily berry product of this valley at present is not less than 300 chests. The raspberry crop is backward all over the State this year. J. R. Strange's prolific home-patch has been producing a fair crop, and he informs us that raspberries are so scarce in the San Francisco market that he finds no trouble in getting from \$1 25 to \$1 50 per drawer for his shipments.

Shasta.

EDITORS PRESS:—As an evidence of the growth of this mountain country, steps are being taken to have five new postoffices in a strip 25 miles long by five or six miles average width, consisting of the Battle creek and Digger creek

bottoms, and of Battle creek plateau, with from 20 to 30 families at each postoffice. Everywhere we see new houses, new fences, new barns, here the clearing enlarged, there some fruit trees set out, and in another place a new ditch or other improvement. This country does not grow like Oklahoma, or Jack's bean-stalk, but we keep on growing all the same. There is one plant that does so remarkably well here—the hop—that many are thinking seriously of going into that business largely. Land is cheap, and any one who understands hop-raising would have a fine opening and plenty of help. We have had rain—rain till we are tired of it. Prospects for all crops, good.—W., Shingletown, May 14, 1889.

ON THE HILLSIDE.—Redding Free Press, May 25: Those of little faith in the productiveness of the soil and climate of Shasta county should visit the garden of Mr. R. Bestwick on the hill. What care and cultivation will do with the roughest of stony soil, has been there demonstrated. His two-year-old fig trees loaded with fruit, his large bed of strawberry vines, full of luscious berries, his orange trees, which passed through the severe winter of 1887-8, his peach trees, and his fine cabbages, peas, and other vegetables, prove that cultivation only is necessary to make the hillside blossom like the Garden of Eden.

Sonoma.

TROUBLED WITH CATERPILLARS.—Santa Rosa Democrat, May 25: Gardeners say that the leaf feeding caterpillar is present in larger numbers among the orchards and gardens of this city than for many years before. Nearly every variety of tree and shrub is infected with the insect, and many of the rose-bushes have been attacked and shorn of their foliage. Besides being very destructive to the plants infected by them, they are a source of great annoyance to the tidy housekeeper who would preserve the neatness of her front door yard and porches. Paris green and London purple solutions are effectual remedies, but caution should be observed in their application.

FRUIT PROSPECTS.—We learn from George Ragle of Green valley that early peaches in his neighborhood will be of good quality and abundant. Later varieties, which are used mainly for canning purposes, such as the Crawford and Orange Clings, were seriously affected by the cold weather and late rains, and will not yield more than a fourth of a crop. Blackberries will make a full crop and are of excellent quality. Cherries will average fairly and apples promise a third of the usual yield. Spitzenberg and Yellow Bell-flower will be the most plentiful. The earlier varieties of apples, like peaches, are in the best condition.

Sutter.

CASH FROM CHERRIES.—Appeal, May 24: From 75 cherry trees on the Bunce place, near Yuba City, the Sutter Fruit Co. has sold this season 400 boxes of cherries at a dollar a box. The yield of these trees was comparatively light this year, but a cash return of \$400 from an acre of land is not unpleasant to contemplate. There is little said of the cherry in print, but it is one of the most profitable fruits grown in California.

BOGUE'S NURSERY.—Farmer, May 24: To obtain a fair conception of what is going on at the Bogue nursery, the reader must, as we have, come and see for himself. There is nothing like it in the county, and we judge the Sacramento valley contains nothing superior. Jas. T. Bogue, a lifelong nurseryman, comes to California for his health from the interior of New York. He finds what he came for, and after extensive traveling in search of a suitable location for a nursery, chooses 100 acres of the recent Abbott purchase near Shanghai Bend. Mr. B. began operations at once, and having studied our horticulture with his Eastern experience, he was soon able to decide what to propagate to meet the coming market. The soil is a rich, soft loam, easily cultivated, which is done to perfection. This gives life and vigor to the young sprouts and renders the whole a scene of beauty indescribable. Our host acknowledged himself an enthusiast with sprouting buds and trees, and said "he would grow shrubbery for bonfires if he had no market." There are 95 acres in trees and nursery, and over a million trees in different stages of growth. There will be 500,000 in condition for the next planting season, and the entire plant embraces pear, peach, plum, apricot, cherry and apple. In large portions of the nursery the ground is also planted to orchard. Mr. Bogue has not only created a mint for himself, but has taught our older residents a valuable lesson which will redound to the benefit and reputation of the county.

Tulare.

THE HARE NUISANCE ABATING.—Delta, May 23: At the rabbit-drive east of Tipton last Saturday only 40 or 50 of the animals were caught. Not many months ago such a drive would have resulted in the capture of many hundreds. Surely jack is going.

EARLY STONE FRUITS.—W. A. Smith brought to market the first apricots of the season on Tuesday morning. They were raised on his ranch in Stokes valley, in this county. His family had been eating them at least ten days previously. On the 15th of May ripe peaches were first eaten from his trees.

MOUNTAIN APPLES.—Mr. and Mrs. Harry Trauger, near Mineral King, sent a box of last year's apples to Miss Florence Dinly this week. No finer apples than those have been ever seen in this town. They are sweet, firm and juicy,

and are as solid as though lately picked from the tree. They were grown at a height of 6000 feet above sea level.

Ventura.

FRUIT AND HONEY PROSPECTS.—EDITORS PRESS:—The apricot crop, which was so abundant in this county last year, will be nearly a total failure this year. The peach trees have taken a new departure in the leaf business, starting irregularly, and on some branches—generally the high ones—not starting at all. It is found by some orchardists that peaches will also be a failure. Certainly, in some localities prunes and plums are quite uncertain. Apples promise well, though it is early to form a definite opinion....The honey outlook is doubtful, some apiarists declaring they will not take a pound; while others, more hopeful, are going over the hives taking what there is and preparing for a good run, which we shall have if the weather—fickle jade—proves propitious, for the honey-producing flowers are out in full bloom. All harvest work is being pushed to the utmost.—S., Fillmore, May 21st.

HANDSOME POPPIES.—Ventura Free Press, May 24: The grandest display of poppies in this town is to be seen in the yard of W. G. Adams at the foot of Oak street. There are stalks there fully six feet tall and covered with large, double flowers of beautiful and varied tints. The poppy does not appear to be cultivated much by florists, but it is one of the handsomest flowers grown.

Yolo.

AN AMATEUR COCOONERY.—Woodland Mail, May 25: Mrs. E. H. Baker has a little army of silkworms which are exciting considerable interest. About a year ago she secured a few eggs from a lady at Dixon, and these have propagated until she now has 198 fine worms, besides those she has given other Woodland ladies. It has long been supposed that silkworms would not thrive upon any leaf but that of the white mulberry, but Mrs. Baker is feeding hers upon the leaves of a red mulberry tree, and they are doing well. They are about two inches long, greenish-white, and are very lively before deciding to retire and spin. As they eat the leaves they make an audible noise. When the worms, which are very clean pets, begin to turn yellow, and give other evidences of a desire to yield their silken store, Mrs. Baker carefully places them in a little paper shell and removes them to a quiet place. Here they go assiduously to work, and in a short time completely shroud themselves in a roll of raw, yellow silk, and go to sleep to await the butterfly state. This is the proper time to scald the cocoons and reel the silk, but Mrs. Baker has no facilities at hand for this operation. She may, however, send 100 of the cocoons to San Jose, that the silk may be reeled.

GOOD WHEAT.—W. B. Young brought a sample of wheat to the Mail office Thursday, as fine as any grown, from George Horgan's place, in the hills, five miles northwest from Cacheville. It was of the "Club" and "Australian" varieties. The latter heads are over six inches in length, well filled and already beginning to turn yellow. Mr. Young estimates the crop, whence this sample was taken, as being good for 20 sacks to the acre, and adds: "The farmers were more frightened than hurt by the late rains."

Yuba.

CUCUMBERS.—Marysville Appeal, May 24: For several weeks past Chinese market gardeners have been shipping cucumbers from Marysville to the bay by express. Next week they will be going forward by the ton. There is a fine opening for white men here to engage in the growing of early vegetables for shipment to Nevada and other Pacific Coast markets.

FINE WHEAT.—Sutter Farmer, May 24: Geo. V. Bennett has growing on the Jas. Clark farm, in Yuba county (now the property of Bennett & Walton), 600 acres of Royal Australian wheat, which is hardly excelled in the Sacramento valley. The soil is of the Yuba county upland and was carefully summer-fallowed a year ago by Mr. Clark. The wheat stands about five feet high, is remarkably well headed and filled with large, plump grain.

NEVADA.

A BETTER OUTLOOK.—Gazette and Stockman, May 23: No one, unless actually engaged in farming or the live-stock business, can appreciate the great good that will come of the last storm. The localities where the ground was parched for want of water are coming out in good shape, and very good crops are assured. The grain in Long and Honey lake valleys, which was choking out and was of a pale, sickly green, has revived and looks healthy and strong. The meadows in those localities were stunted, and would not have produced any hay at all had not the storm come just as it did. Farmers now look forward to a prosperous season.

ARTESIAN BORING.—Theo. Winters Friday finished the boring on an artesian well 265 feet in depth and succeeded in getting a flow of 150 gallons per minute. This is the third flowing well in Washoe valley....James Miller of Long Valley, after sinking 1130 feet for artesian water, has abandoned the project. The first 700 feet they went through a sand formation and then came to clay, which they were still in when they quit. The machine was only calculated to bore 600 feet, but they went down 1130 with it, and were obliged to stop. The machine will be moved to Jack Forsythe's place, about two miles south, and another well sunk.



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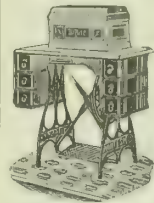
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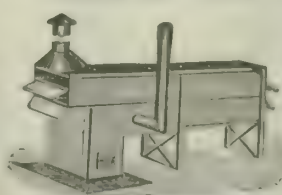
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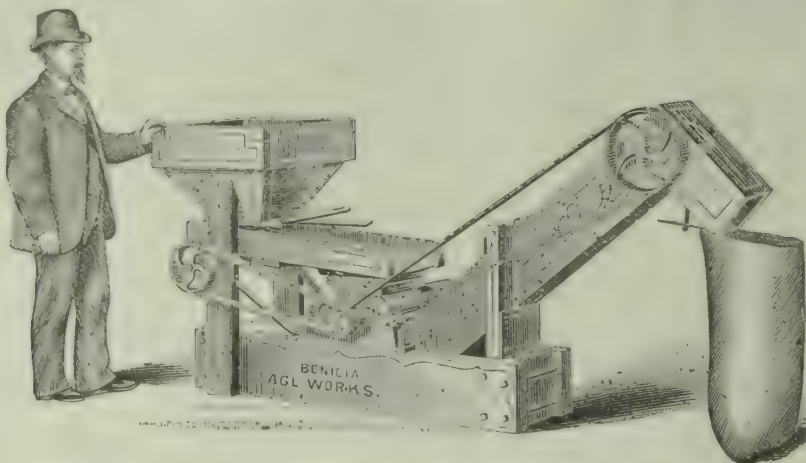
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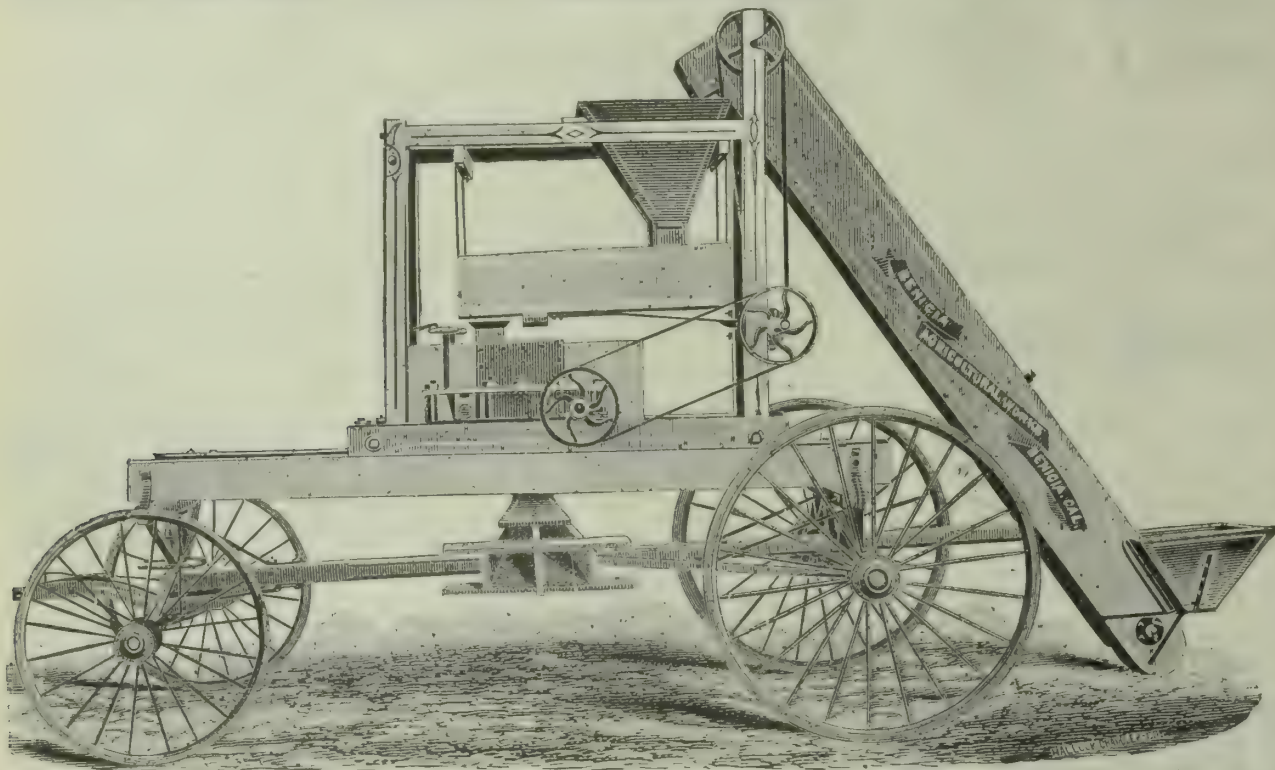
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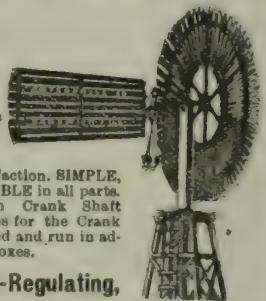
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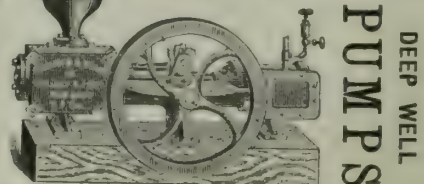
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FRUIT MARKETING.

The Golden Gate Fruit Association.

We alluded last week to the formation of a new association for shipment of fruit to the East. The following official statement of officers and the constitution under which they will act will give all our readers information of the aims and methods of the new organization:

OFFICERS FOR THE YEAR 1889.—President, A. T. Hatch; Secretary *pro tem*, Wm. M. Jenks; Treasurer, California State Bank. Directors—Edwin T. Earl, Earl Fruit Co.; Chas. W. Reed, Sacramento; A. T. Hatch, Suisun, Solano Co.; Chas. W. Pike, Rancho Chico Fruit Co.; Geo. D. Kellogg, Newcastle, Placer Co.; R. C. Kells, Yuba City, Sutter Co.; T. H. Buckingham, Vacaville, Solano Co.; R. B. Blowers, Woodland, Yolo Co.; W. S. Kendall, Sacramento, Ingleside Fruit Farm.

Executive Board of Managers—A. T. Hatch, Edwin T. Earl and Chas. W. Reed.

Auction houses—Chicago, Richard M. Montgomery & Co.; Boston, Snow & Co.; New York, E. L. Goodsell.

Constitution.

This association is formed for the purpose of shipping and marketing California fruits for all its members in Eastern markets, and for cheapening transportation thereon by shipping by special trains whenever practicable; also, to furnish its members with information during the shipping season of the state of Eastern markets, and to endeavor to obtain reduced through and local freight rates, and, as far as possible, to attend to the furnishing members with cars and forwarding fruit in carload lots to their destinations. And for the purposes aforesaid, we, the undersigned, do hereby establish the following articles of agreement and rules for the government of its business:

ARTICLE I.—The name of this association shall be The Golden Gate Fruit Association, and its principal place of business shall be at Sacramento City, California.

ART. II.—All persons, corporations or companies, who desire to ship fruit, may become members by signing these articles and paying the sum of five dollars annually into the treasury of this association.

ART. III.—The officers of this association shall consist of a president, vice-president, a secretary, a treasurer, a board of nine directors and an executive board of three managers. The board of directors shall be elected by ballot at the annual election of the association, the date and time of which meeting shall be appointed by the president, to take place at the office of the association during the month of April in each year. The secretary shall mail to each member a notice of the time and place of such annual meeting immediately upon the date being appointed by the president, which date must be at least two weeks prior to the meeting. The board of directors shall meet at the call of the president, or the secretary may call a meeting whenever three members of the board of directors shall request, in writing, that a special meeting be called; and at each and all of these meetings five members shall constitute a quorum for the transaction of business; and they shall immediately, upon their election, at their first meeting, elect from their number the president, the vice-president, the treasurer and the executive board of three managers. All of the above officers to be elected by the board of directors, shall hold office until their successors are elected.

ART. IV.—The executive board shall have full power to carry out all business arrangements made in accordance with these articles. They shall appoint a secretary, who shall also act as secretary for this association at its annual meetings, and also as secretary of the board of directors. They shall also appoint a dispatcher and such other assistants as may become necessary. And they shall fix the amount of their salaries and define their duties. Except, however, that no person shall be appointed or kept in the position of dispatcher who is, directly or indirectly, interested in the shipment of fruit on his own account or for other parties.

The executive board shall also appoint agents for this association whenever requested so to do by shippers, and shall require of such agents a good and sufficient bond as security for the faithful performance of all their obligations.

And they shall require all such agents to remit proceeds of sales direct to shippers, and duplicate accounts of all sales to the secretary of this association.

ART. V.—All shippers must make application and designate in writing or by wire to the secretary, on or before Saturday of each week, the number of cars wanted, and the date of their shipment for the succeeding week, together with the name of the consignor and consignee, and they must also furnish an invoice of the contents of each car as early as possible on days of shipment. Shippers must guarantee the payment of all freight charges, and must prepay or authorize the prepayment by this association of all charges for expedited service on cars shipped by special train. The destination of cars may be changed at any time before delivery.

ART. VI.—Whenever more cars are offered for shipment on any one day than can be shipped by special trains, such additional cars shall be forwarded by passenger train, and the cost for

freight of all cars shipped from Sacramento, whether by special or passenger train, shall be aggregated and apportioned equally to each car shipped on that date by this association.

ART. VII.—All markets shall be open and members of this association may ship without restriction to any destination or agent that they may elect, but all fruit that is to be sold at auction at any destination must be sold by the auction houses of this association.

ART. VIII.—The auction houses of this Association shall be appointed by the executive board, but such appointment must be ratified by the board of directors at their first meeting thereafter.

ART. IX.—The sum of ten dollars shall be paid in advance to the secretary for each car shipped, to create an expense fund, and all money received from this source remaining unexpended at the expiration of each fruit shipping season shall be refunded pro rata for each car shipped.

ART. X.—In the event of the death or withdrawal of either of the members of the executive board, the president shall at once appoint a member of this association to fill the vacancy until the first meeting of the board of directors, at which meeting the board of directors shall either ratify such appointment or elect some other member to fill the unexpired term of such executive manager.

ART. XI.—The secretary shall keep all shippers informed of the condition of all markets and of the applications made to him for cars and their destinations, and by whom said applications are made, as soon as he receives them by letter (or by wire at the shipper's expense when desired).

ART. XII.—These articles may be altered, amended or abrogated at any annual meeting by a vote by ballot of two-thirds of the members present, or at any stated meeting called for the purpose by the president; provided that written notice of said contemplated alteration, amendment or abrogation shall have been mailed to each and every member of this association by the secretary at least two weeks prior to such meeting.

The Santa Rosa Boys' School,

Which was established there last July by Rev. S. M. Dodge, has proved a great success. Over 50 pupils have been enrolled during the year, with an average attendance of 35. The school has gone on increasing in favor and the prospect is that its limits will be reached at the beginning of next term, as only 12 boys are admitted to the family and the accommodations for day pupils are already filled.

Mr. F. C. Foster, formerly of Hopkins academy, is associated with Mr. Dodge in the school, and all branches preparatory to college or business are thoroughly taught.

Friday night, May 17th, the Literary Society gave a reception at the home of the principal. About 200 guests were present and the occasion was enjoyed greatly. Many favorable comments were made upon the pleasant rooms and excellent appointments, which render the home department one of the most desirable upon this coast. Oration, essay, select reading and debate reflected credit alike upon teachers and pupils.

THE SANTA ANA NURSERY reports to one of our correspondents that its sales of fruit trees the past season have been large and satisfactory. Compared with the seasons of '87 and '88, there has been much less demand for ornamental stock, which was in great request during the boom, when private yards, as well as considerable acreage property, were set out to fancy trees, shrubs and flowers. A good percentage of the sales this season have been of walnuts, which are being quite largely planted near Santa Ana. Geo. W. Ford of the Santa Ana nursery has been in business in Los Angeles county since 1877, and has many acres of good stock for sale. He understands his business and furnishes healthy trees.

CATTLE AND HORSE SALE.—Readers should not overlook the announcement of a sale of Shorthorn cattle, horses and brood mares by Robert Ashburner of Baden Farm and H. Van der Straten of Hopland. These two lots of fine stock will be offered at the same time and place—Bay District Track, San Francisco, on Tuesday, June 11th, at 12:30 P. M. Killip & Co. will officiate. The sale is to be absolute, and catalogues can now be had of either of the parties named or of the auctioneer. The animals can be safely commended and the sale will give people a chance to get good stock at their own prices.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

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W. E. BRICK—San Francisco.
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QUERIES AND REPLIES.

Alfilerilla Seed Wanted.

EDITORS PRESS:—I have tried through San Francisco and other seedsmen to get an ounce of alfilerilla seed, but without success. As I am desirous of trying it experimentally, will you, or any of your readers, tell me where I am likely to obtain a small quantity? As it promises to become a most valuable forage plant in the arid regions, it is surprising that some seedsmen of prescient enterprise has not secured a supply of seed and brought it to the notice of cattlemen.—J. D. EMERSLEY, *Des Moines, Cal.*

Alfilerilla seed, owing to its character, is exceedingly hard to secure and will probably never be a commercial article. Perhaps some reader may be disposed to hand-pick a few plants and send to Mr. Emersley as a favor. If he gets a few plants it will spread rapidly enough if the situation favors it.

Ointment for Sore Teats.

EDITORS PRESS:—The best ointment for cows' sore teats is made by thoroughly mixing three parts of pure mutton tallow and one part of wood ashes. Pure white ashes from oak wood are best.

Our family cow jumped an old barb-wire fence 15 days ago and tore three teats open, one of them the whole length. I've been applying the above ointment at every milking, and to-day the last teat is entirely healed up.

Last winter, when children were eating second-crop fruit from the orchards and vineyards, some of which was frost-bitten, sores came out on their legs and arms. These were refractory and refused to heal with the usual doctor's remedies of carbolic ointment and vaseline, etc. We had recourse to our tallow-and-ashes remedy and they healed like magic.—W. A. SANDERS, *Sanders P. O., Cal.*

Incomes From Small Farms.

EDITORS PRESS:—Will you kindly permit me the use of your columns to request your readers to give me actual figures as to the products and profits of small farms ranging in size from 5 to 50 acres? There appears to be so much doubt in the minds of Eastern people on this subject, and I am having so many inquiries, that it has seemed best to ask from fruit-growers all over the State a kindly co-operation in making a statement that cannot be called in question.—F. H. BARCLAY, *30 S. Spring St., Los Angeles, Cal.*

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING MAY 14, 1889.

- 493,409.—PILE-PROTECTOR—G. M. Baronidis, S. F.
- 493,452.—HYDROSTATIC SCALE—Frank Batter, Slide, Cal.
- 493,411.—GRAIN-DRIER—Lewis Borland, S. F.
- 493,412.—GRAIN-DRIER—Lewis Borland, S. F.
- 493,175.—GAUGE FOR GRINDING DRILLS—A. F. Brewer, S. F.
- 493,176.—SAFETY GATES FOR R. R. CARS—W. M. Brown, Jr., Sacramento, Cal.
- 493,459.—SEWER TRAP—Cohn & Merrill, S. F.
- 493,095.—SCRAPER—Denehy & Childs, Acampo, Cal.
- 493,333.—WOODEN BOXES—E. Densmore, Coronado, Cal.
- 493,421.—GRINDING-MILL—E. Derbec, S. F.
- 493,184.—PINCH BAR—P. C. Forrester, Wilkeson, W. T.
- 493,187.—STEAM VALVE—J. W. Gheen, Astoria, Ogn.
- 493,430.—WATER-MOTOR—Chas. R. Hunt, Redding, Cal.
- 493,114.—FLOW AND SEEDER—H. M. Kingsbury, Middletown, Cal.
- 493,432.—SPRING GUN—Edward Y. Knapp, Blue Lake, Cal.
- 493,284.—BED LOUNGE—C. Newhouse, Los Angeles, Cal.
- 493,370.—RAILWAY SIGNAL—G. Provost, S. F.
- 493,392.—FEATHERING PADDLE-WHEEL—Henry F. W. Sohse, S. F.

NOTE.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

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Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

THE VALUE OF LONGEVITY.

Dr. Felix L. Oswald, in writing of the value of longevity, says:

"Can there be a doubt that Burns and Keats foresaw the issue of their struggle against bigotry, or that Cervantes, in the gloom of his misery, could read the signs of the dawn presaging a sunburst of posthumous fame?"

"Spinoza and Schiller died at the threshold of their goal; Pascal, Harvey, Macaulay, Buckle and Bichat left their inimitable works half finished; Raphael, Mozart and Beethoven died at the verge of a summit which perhaps no other foot shall ever approach."

"Who knows how often, since the dawn of modern science, the chill of death has palsied a hand that had all but lifted the veil of Isis' temple? Or in how many thousand lives time alone would have solved all discords into harmonies? An increase of longevity would indeed solve the vexing riddles of existence; it would furnish the peculiar indorsement of Mr. Mallock's conclusion. It would give the vicissitudes of fortune a chance to assert their equalizing tendencies, it would supply a missing link in the arguments of that natural religion that trusts the equipoise of justice in the apparent caprices of human fate."

"The price of longevity would redeem the mortgage of our earthly paradise"—and it can be prolonged and should be, with care and the use of proper medicine at the right time.

Owing to the stress, the worry and the annoyance of every-day life there is no doubt but that tens of thousands of men and women yearly fill premature graves.

Especially after middle life should a careful watch be kept over one's physical condition. The symptoms of kidney disease, such as becoming easily tired, headache, neuralgia, feeble heart action, fickle appetite, a splendid feeling one day and an all-gone one the next, persistent cough, trouble in urinating, etc., should be diligently looked into and at once stopped through a faithful use of Warner's Safe Cure, which has cured tens of thousands of such troubles and will cure yours.

Experiencing no pain in the region of the kidneys is no evidence that they are not diseased, as those great purifying organs have very few nerves of sensation, and oftentimes the kidneys are positively rotting and being passed away through the urine before the victim is aware he is suffering from advanced kidney disease, which is only another name for Bright's Disease.

To preserve life and to be well while you live are two cardinal virtues, and it is time well spent to give this vital subject earnest and careful attention, and to use the knowledge acquired in a judicious and intelligent manner.

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To favor subscribers to this paper, and to induce new patrons to try our publication, we will furnish, to those who pay fully one year in advance of date, if requested the following articles (while this notice continues), at the very greatly reduced figures named at the right:

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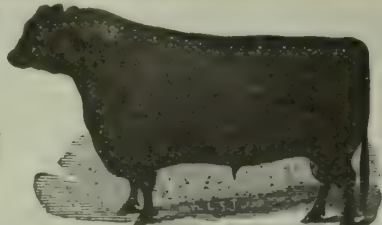
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Catalogues will be ready in a few days, and can be had of either of the above named parties, or of

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From the best Butter and Milk Strain in the State.

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SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with records better than 2:30, and the dams of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp. Emancipation. Third dam by Bertrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 406, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Albion, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son of Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:28. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Ryadyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Tamboul, 2:14; Albion by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:03, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 6th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:37), by Electioneer, the sire of Massineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book. Vol. 1, American C. B. S. B.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B. Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" class, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at St. Yorkshire, beating 20 others.

First dam Whalebone (355), first premium St. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16 1/2 hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLÉON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 248; he by Master George 203, by King George 160; he by King George IV 168.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Midleton in Teesdale, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

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Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

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It prevents disease, regulates the bowels and urine, strengthens the kidneys, prevents scouring, colic and leg swelling, loosens the hide, promotes the appetite, cures cough, destroys worms, and produces a fine glossy coat. \$7.50 per 100 pounds. Manhattan Egg Food, in bulk, 12 cents per pound. Ask your dealer, or send to **PAUL KEYSER**, Agent, 206 Clay St., S. F.

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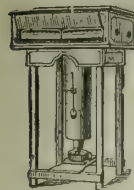
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ATTENTION!

ADMINISTRATOR'S SALE

By order of Probate Court, in the matter of the Estate of JAMES ROBERTS, Deceased.

I will sell at private sale to the highest bidder, for cash, on or after May 1, 1889, at the Ranch in Irvington, or at my office in Oakland, 946 Broadway, Alameda Co., Cal., the entire flock of Thoroughbred French Merino Sheep, consisting of 280 (Two hundred and eighty) Ewes, 79 (seventy-nine) Bucks, and 180 (one hundred and eighty) Lambs. These Sheep are the get of the original flock imported by Robert Blacow of Centerville. Mr. Roberts, as foreman, having charge of the flock for several years prior to Mr. Blacow's death, after which he became the owner of the entire flock, which he has kept purely for stock purposes.

All interested in Thoroughbred Sheep should be familiar with this flock, which has become famous under the care and management of Mr. Roberts; always receiving first premiums, having been sold to Europe, South America and all parts of the United States; individual members having repeatedly sold for from \$500 (five hundred) to \$1500 (fifteen hundred) each. Sheep Men should seize this opportunity to secure some, as they must be sold to settle up the Estate. Address, JAMES STANLEY, Administrator Estate J. Roberts, Deceased, Mission San Jose, or 946 Broadway, Room 17, Oakland, Cal.

THOROUGHbred
SPANISH MERINO SHEEP.

Have taken the First Premiums at the State Fair for the last three years.

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On account of the death of F. A. BRIGGS, Manager of the Pacific Coast Branch of the Amesbury (Mass.) Carriage Factory, the whole stock of fine light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for sale at less than cost, to settle the estate.

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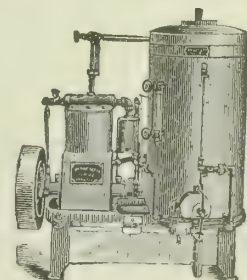
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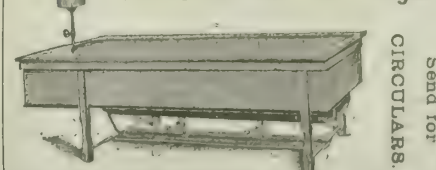
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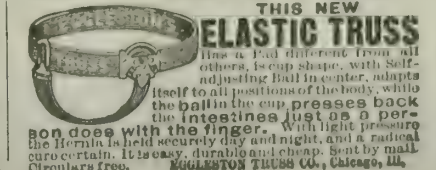
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DEWEY & CO., 220 Market street, San Francisco, Cal.

S. F. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, May 29, 1889.

The weather the past week continued favorable for maturing crops. There can be no doubt but the cool weather in several of the counties is causing grain to fill out well. The fruit crops are maturing quite rapidly. Garden truck is coming forward quite freely, with low prices ruling. Trading the past week in garden truck and fruit was quite active, but in cereals it was only fair. The market for wheat after receding abroad and at the East has held fairly steady.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	May.	June.	July.	Aug.	Sept.	Oct.
Thursday....	6.85d	6.90d	6.95d	6.91d	6.85d	6.85d
Friday.....	6.85d	6.90d	6.95d	6.91d	6.85d	6.85d
Saturday....	6.85d	6.90d	6.95d	6.91d	6.85d	6.85d
Sunday.....	6.85d	6.90d	6.95d	6.91d	6.85d	6.85d
Tuesday....	6.85d	6.90d	6.95d	6.91d	6.85d	6.85d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday....	33.6d	33.9d	33.9d	Dull.
Friday.....	33.6d	33.9d	33.9d	Dull.
Saturday....	33.6d	33.9d	33.9d	Steadier.
Sunday.....	33.6d	33.9d	33.9d	Slow.
Tuesday....	33.6d	33.9d	33.9d	Firm.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	May.	June.	July.	Aug.
Thursday....	80.	80.	81.	81.
Friday.....	81.	81.	82.	81.
Saturday....	81.	81.	82.	81.
Sunday.....	81.	81.	82.	81.
Tuesday....	81.	81.	82.	82.

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	May.	June.	July.	Aug.
Thursday....	81.	80.	76.	76.
Friday.....	81.	80.	76.	76.
Saturday....	81.	80.	76.	76.
Sunday.....	81.	80.	76.	76.
Tuesday....	79.	79.	77.	74.

Foreign Grain Review.

LONDON, May 27.—The *Mark Lane Express*, in its review of the British grain trade for the past week, says: Heavy deliveries of English wheat caused a decline. Flour is lower. Foreign wheats are almost unsalable at any price—there is a general decline of 1s. Barley is lower and corn is weak. At to-day's market English and foreign wheats were firmer; corn was better, while oats and barley were flat.

California Raisins.

NEW YORK, May 26.—Col. Forsythe, one of the leading raisin-producers of the United States, has just returned from a careful inspection of all the raisin-growing districts of Europe, and says that American raisins, in addition to supplying the American market, are destined soon to take a large share of the London business. He says that the phylloxera is constantly diminishing the best crops of Spain in an increasing degree, and that even if they should now get a remedy for it, which is not probable, it will be five years before the Malaga district can recover its former position. A heavy consignment (given by the Rural Press at the time at 2000 boxes) of California raisins was disposed of in London this season, being the first shipment of the kind on record.

Wool.

NEW YORK, May 25.—Liberal transactions in wool indicate that buyers take kindly to the firmness of prices for the new clip, which is helped by its attractiveness. Prominent Texas clips are reported sold as follows: Part speculative, to dealers, Lyttell, 22c; Callahano, 21c; E. Benaides, 23c, delivered North.

Mail advices are as follows from the *Boston Daily Advertiser*, May 17: "There is no doubt but the market this year shows up several cents above last year's prices, and buyers who expect to be able to purchase wool at low figures in the country bid fair to be disappointed, as sellers' views there still hold up very high. On the spot, however, prices cannot be quoted firm, and it is only in a moderate way that buyers can be tempted to operate at all. Stocks here are small, and on this account there is no pressure to sell, and as buyers are in need of supplies they are paying about former rates. The weak point is still the manufactured goods, and until the market improves for them there is nothing to tempt buyers to operate very freely in wool. Some new wool is being received, but it opens slow. Moderate lots have been sold, but it is mostly small lots which are being taken and mostly in a sample way. The mills generally have considerable old wool on hand left over from their last fall's purchase, but they seem to feel that values are going to hold up, so they are willing to purchase good lots if they appear cheap. The general situation at present is not a satisfactory one to dealers, and they feel that considerable caution is necessary on their part to keep from losing money."

From the *Philadelphia Record*, May 17: "Locally it is a buyers' market to the dealer who wants to sell, and a sellers' market to the manufacturer who needs wool. In other words, the opportunity for selection from the present limited stock is so small that it puts the buyer at a disadvantage when he actually needs a certain pile of wools, and in order to get it he is generally compelled to pay a comparatively full price. On the other hand, demand is so light that any effort on the part of the dealer to force business would necessitate sharp concessions. The stock, however, is too small to cause any anxiety to realize, as very little new wool (other than few fat sheep lots) has yet arrived, and there is little prospect as yet of getting any considerable supply at figures low enough to undersell present local prices. The country has had its views inflated by the predicted stimulation of trade to follow the changes in tariff rulings on waste and worsted cloths, and although there has been no such improvement

in trade, the people who would now like to buy wool cheap from the grower are confronted with the effect of their own over-sanguine promises made before the new clips were ready for market."

California Fruits East.

CHICAGO, May 23.—The agents for the California Fruit Union held an auction of California fruit to-day; 1467 boxes of cherries from San Jose and San Lorenzo brought \$2303. Black Tartarians sold at \$1.40 to \$1.80 per box. Black Bigarreau sold at \$1.60 to \$1.80. Black Rockports sold at \$1.25.

NEW YORK, May 24.—A few lots of California fruit were recently sold here by agents of the California Fruit Union. Being small lots, they were not auctioned. The few boxes of apricots sold for \$6. Now there are daily arrivals. Cherries are bringing from \$3 to \$3.25 per box. The cherries are not all sound.

CHICAGO, May 27.—An auction firm to-day sold for account of the agents of the California Fruit Union two carloads of choice California fruit, consisting of seedling and Pringle apricots, peaches, cherries and cherry plums. There was a good lively demand, and as the bulk of the fruit offered was in fine condition, good prices were realized, apricots selling at \$3@3.65; peaches, \$2.65@3.65; cherry plums, \$1.90@2.15; cherries, 60c@2.10, according to condition. The gross sales on the two cars amounted to \$5100.

Miscellaneous.

NEW YORK, May 25.—Lima beans are strong at \$3.25@3.30.

Hops are still regarded as safe property, but have not as yet obtained the sharp advance predicted.

Prunes are scarce and wanted. Two and three-crown raisins are active and better; 5000 went to Chicago at \$1.35@1.40, and \$1.60@1.65, respectively. The closing prices are \$1.40@1.75. With three months ahead of the new crop the fall will find a clear market.

A few special export orders support 23c for the best State hops. Brewers use fair quantities of good quality, under-priced, taking State at 20@22c, 15c for 17c Red Pacific, 10@20c good to prime others. Exports of the week, 841 bales State.

Local Markets.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday....	58 1/2	57 1/2	77 1/2
Friday.....	58 1/2	58 1/2	77 1/2
Saturday....	59 1/2	58 1/2	77 1/2
Sunday.....	62 1/2	61 1/2	80 1/2
Tuesday....	59 1/2	59 1/2	76 1/2

New.

	S. S.	B. S.	B. '89.	S. '89	B. '89.
Thursday....	129	132 1/2	124	129 1/2	129 1/2
Friday.....	129	132 1/2	124	129 1/2	129 1/2
Saturday....	129	132 1/2	124	129 1/2	129 1/2
Sunday.....	129	132 1/2	124	129 1/2	129 1/2
Monday.....	129	132 1/2	124	129 1/2	129 1/2
Tuesday....	129	132 1/2	124	129 1/2	129 1/2

New.

BAGS—The market for Calcuttas is very strong, at a slight advance. The call, as yet, is only fair. It is claimed that when the demand sets in, active prices will advance still more. The market is quotable to-day from 8 to 8 1/2c for spot, and 8 1/2 to 8 3/4 for July-August delivery.

BARLEY—Sample parcels continue slow, with the market reported to have a firmer tone. In futures, prices after receding have advanced some, as values are below the cost of production.

BUTTER—The market has been crawling throughout the week, under liberal receipts and a light call. Many places that drew from here are now being supplied by local dairies. Packers are disposed to bid lower prices, owing to creamery from the Central States being offered on the market. Gilt-edged butter only moves fairly; all second-class is hard to sell, except at low prices.

CHEESE—The market is very heavy, under heavy stocks and free receipts. From the store, gilt-edged is obtainable at 7@7 1/2c, while choice is obtainable at from 6@6 1/2c.

EGGS—With warm weather, choice, selected fresh eggs are in favor at full prices, but all others are slow. Dealers do not like to keep much on hand in warm weather.

FLOUR—The market is weak. Only concessions tempt buyers. The consumption is lessened, owing to the abundance of fruit and vegetables.

WHEAT—The market has been going from bad to worse at a fairly active pace. It seems as if buyers are determined to take advantage of farmers who will be compelled to sell so as to meet maturing bills. The tonnage here and to arrive is small to market so large a crop as we will have. On Call, futures have been dealt in more freely, with only slight fluctuations noted.

[COMMUNICATED.]

Market Information.

Produce Receipts.

Receipts of produce at this port the week ending May 28th, were as follows:			
Flour, qr. sks.	79,170	Middlings, sks.	6,581
Wheat, cts.	204,428	Alfalfa, "	—
Barley, "	21,726	Chicory, "	150
Rye, "	—	Broomcorn, bbls.	80
Oats, "	15,101	Hops, bbls.	152
Corn, "	22,019	Wool, "	4,120
Butter, "	2,769	Hay, tons.	2,108
do bxs	834	Straw, "	32
Cheese, cts.	1,006	Wine, gals.	188,734
do bxs	—	Brandy, "	—
Eggs, doz.	113,170	Raisins, bxs	—
Beans, cts.	6,992	Honey, cs	350
Potatoes, sks.	15,261	Walnuts, sks	34
Onions, "	5,946	Flaxseed, sks	393
Brick, sks.	16,731	Mustard, sks	580
Buckwheat, sks.	—	—	—

Cereals.

H. Kains Jackson writes to the *London Farmer* of May 11th as follows: Harvest is nearer by a fortnight than it was a week ago, owing to the great burst of summer heat that followed a spell of rainy weather. Now the fields are like so many forcing beds, and the growth of plant life is rapid and strong under solar light and heat. The great changes that

occurred irregularly at the end of last week, and which are continued in this week, were of an electrical character, and extreme in their variations. Probably the passage of the November meteors—now between the earth and the sun—are the causes of the great and sudden heat, which was much needed to stimulate and strengthen plant life. The markets are affected by the brilliancy of the weather, as regards attendances and sales off stands; but the value and demand for cargoes have scarcely been affected, since the earliest European harvest is still distant, and a regular demand should take off all supplies at present in sight. The quickness with which the last large fleet was absorbed has revived spirit, particularly as the United Kingdom took the cargoes without continental aid. But now the forces of spring are everywhere extending, and shipments of Russian wheat, oats, Danubian maize and barley, Egyptian beans, etc., should become active—all the more through the active rivalry of American competitors, who have climbed down from their tree of 37s. to 32s., and therefore at negotiable terms in comparison with other sorts. At present buyers appear to prefer "other sorts," but as a couple of large cargoes are coming to London, perhaps the American wheat may be found to grind up satisfactorily. Indian business keeps limited, and it is not easy to buy any sorts below quotations, 36s. downward to 37s. per quarter. Sales forward for future delivery of wheat, over the next three months, are offered within 1s. per quarter of "spot" prices, and this fact demonstrates the dead level to which value has fallen.

A carload of 1889 wheat was received in this city on last Saturday from Reedy, Tulare county. It was shipped by T. L. Reed, and was sold at \$1.37 1/2 cwt. The grain was not well filled. Last year the first consignment came from Modesto, Stanislaus county, and was sold at \$1.31 1/2. Never before have we received new wheat in May, and the indications point to an early harvest. Following are the dates of the arrival of first lots of new California wheat at tide-water for a number of years, together with the prices paid:

Year.	Month.	Price.
1859.....	July 14.....	\$1.90@3.00
1860.....	July 3.....	1.50@1.55
1861.....	July 24.....	1.50@1.62
1862.....	July 11.....	1.02@1.65
1863.....	June 25.....	1.50@1.60
1864.....	July 9.....	2.80@2.95
1865.....	June 12.....	2.20@2.25
1866.....	June 25.....	1.50@1.60
1867.....	June 17.....	1.05@1.70
1868.....	June 18.....	1.90@2.00
1869.....	June 15.....	1.40@1.45
1870.....	June 9.....	1.70@1.80
1871.....	June 23.....	2.30@2.37
1872.....	June 10.....	1.80@1.85
1873.....	June 7 (Vallejo).....	1.75@1.80
1874.....	June 11.....	1.65@1.67
1875.....	June 2 (Vallejo).....	1.65@1.67
1876.....	June 9 (Oakland).....	1.75@1.75
1877.....	June 2 (Vallejo).....	2.40@2.40
1878.....	June 13.....	1.70@1.70
1879.....	June 20.....	1.65@1.65
1880.....	June 24.....	1.00@1.00
1881.....	June 7.....	1.25@1.40
1882.....	July 6.....	1.67@1.67
1883.....	June 19.....	1.65@1.70
1884.....	June 20 (Port Costa).....	1.42@1.42
1885.....	June 2.....	1.42@1.42
1886.....	June 5.....	1.30@1.30
1887.....	June 10 (Port Costa).....	1.75@1.75
1888.....	June 15 (Wheatport).....	1.31 1/2@1.31 1/2
1889.....	May 24.....	1.37 1/2@1.37 1/2

The stock of old wheat in the State will be taken on the 1st of June. There is considerable new offering on the market at \$1.25 for June-July delivery, but buyers, at this figure, are not free purchasers. Everything that is possible is being done to depress the market, not the least of which is the paying of a small sum of money for the privilege of putting a stipulated number of hundred tons at very low figures, ranging from \$1.10 to \$1.15 per cental for No. 1 white shipping—of course, the man who buys the privilege of putting the wheat does not expect to put it, but such low figures are used as the handle to buy wheat from farmers at low prices. Old wheat is weak and inactive, with buyers offish. Harvesting has commenced in several sections of the State. The returns so far received show a larger return from each locality than were received from them last year.

Barley has held to low and unsatisfactory prices throughout the week, under strong selling pressure of poor and weevily. Harvesting is reported in several localities, but as yet no new has been received; probably the very low prices ruling here prevent shipments.

Continued free receipts and buyers bidding low cause oats to rule weak at the low quotations. Crop advices in this State and up north are of a flattering character.

Corn is without essential change. The demand is of a steady character, which is met by holders without trying to force sales.

Rye is still weak. The crop this year promises to be the largest on record, while the quality will be good.

Feedstuff.

In ground feed, the market shows more life, but the heavy supplies keep the market in buyers' favor. The consumption of ground barley, at the low prices, appears to be increasing.

In hay there is nothing of interest to report. The offerings are free, but the quality is not up to last year's output. It now looks as if choice to extra choice hay will fetch good prices throughout the year, while poor to fairly good will be in oversupply, and, probably, with strong selling pressure, rule low.

Fruit.

Dried fruits show a steady, firm tone, but no advance is looked for. The *New York Fruit Trade Journal*, May 18th, says: "There is absolutely nothing to say about the market for prunes. The stock has been distributed, prices averaging from 7 to 7 1/2c for 60s to 90s. There are no prunes in New York in first hands. Receivers are all out. Choice California raisins are scarce in this market. Even ordinary grades are not plentiful, there being quite a moderate supply for the time of the year. Prices while not advancing are looking up."

The market for seasonable fruits has remained fairly steady for berries and cherries. Canners are still taking strawberries and cherries. The receipts of the latter have been quite heavy, necessitating, at

times, a marked concession on the poor keepers so as to work off the consignments. Quite a percentage of the receipts the forepart of the week, under review, were cracked. Cherry plums have come in, but the quality being poor, they were hard to place. Peaches are still poor.

In citrus fruits, choice, well-selected, good-keeping oranges are strong at full prices, under an active shipping and local demand. Limes are stronger.

Vegetables.

Heavy receipts of new potatoes depress the market for the small and those not evenly matured. Fair-sized, good keepers sell well under a good home and shipping inquiry.

Onions have receded still more for poor keepers, but for good keepers prices keep fairly strong, even in the face of free receipts.

In season vegetables, trading continues active, with prices fluctuating from day to day. Cucumbers, tomatoes and asparagus are lower. Choice string beans and sweet peas move off well. Canners are taking asparagus, peas and beans. Cabbages are unchanged. Summer squash is weak at the lower prices.

Live Stock.

The market for all kinds is without essential change. Liberal supplies of fruits and vegetables, with many persons going out camping or else to the seaside, lessens the consumption in this city. Prices are not quotable lower, yet to force sales lower prices would have to be submitted to. In horses and milch cows, there is nothing new to report.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, grain fed, 5 1/2@6 cwt lb.; dressed, 8 1/2@9 cwt lb.; soft, 5 1/2@5 cwt lb.; dressed, 8@9 cwt lb. Stock hogs, 5@6 cwt lb.

BEEF—Stall fed, 6@6 1/2 cwt lb.; grass fed, extra 5 1/2@6 cwt lb.; first quality, 5 1/2@5 1/2 cwt lb.; second quality 4 1/2@5 cwt lb.; third quality, 4@4 1/2 cwt lb.; bulls and thin cows, 2@3 cwt lb.

VEAL—Small, 7@8 cwt lb.; large, 6@7c. MUTTON—Wethers, 5@5 1/2 cwt lb.; ewes, 4 1/2@5 1/2 cwt lb.; lamb, spring, 6@8 cwt lb.

Wool.

Receipts the past week were light, notwithstanding Oregon has sent us more liberal supplies. The light receipts give color to the report that Eastern buyers are operating quite freely in some parts of the interior. The changing fashion calls for wools from which alpaca and other luster goods can be made, and also from which soft woolen goods can be produced. The changing fashion in men's wear calls for wools from which chevot goods can be made. These changes will bring wools from the Down sheep into more general favor. Fashion is also calling for mohair and cashmere goods, which will cause wool from the Angora goats to fetch better prices. It now looks as if the coarse to medium wools will fetch more money proportionately than will fine wools. Sales of fancy clips are reported at a slight advance on quotations.

Miscellaneous.

Poultry the past week was essentially unchanged, receipts and the demand having been about evenly divided. The general feeling at the close was fairly firm, under light receipts.

Hops are steady, under light obtainable supplies and a fair inquiry. Crop prospects are good. The feeling for new crop supplies is unsettled.

Colored beans are steady, with a firm tone, but whites have a weak tone.

Nuts are in fair request. Crop prospects are reported to be good.

In honey, there is a fair movement. A shipment of 600 cases to Liverpool was made the past week.

From the *Commercial News* of May 29, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	189,255	292,975
On the way to neighboring ports 28,327		127,425
In port, disengaged.....	24,595	33,691
In port, engaged for wheat....	48,982	13,950

Totals.....291,159 468,041

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to May 28, the following are the exports from this port:

	1889.	1888.
Wheat, cts.....	12,108,987	8,279,110
Flour, bbls.....	747,830	702,830
Barley, cts.....	1,379,894	878,124

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, May 29, 1889.

BEANS AND PEAS. (California, 1887, 6@12

Bayo, cts..... 2 30 @ 2 50 do 1888, 10 @ 12

Butter..... 2 50 @ 2 81 ONIONS.

Peas..... 1 50 @ 1 80 New..... 30 @ 50

Flour..... 2 35 @ 2 75 do 1888, 10 @ 12

Red..... 2 10 @ 2 35 Walnuts, Cal. bbl 5 @ 8

Large White..... @ do Chile..... 7 @ 10

Small White..... 1 60 @ 1 80 Almonds, bbl 5 @ 10

Lima..... 2 25 @ 4 50 Softshell..... 9 @ 10

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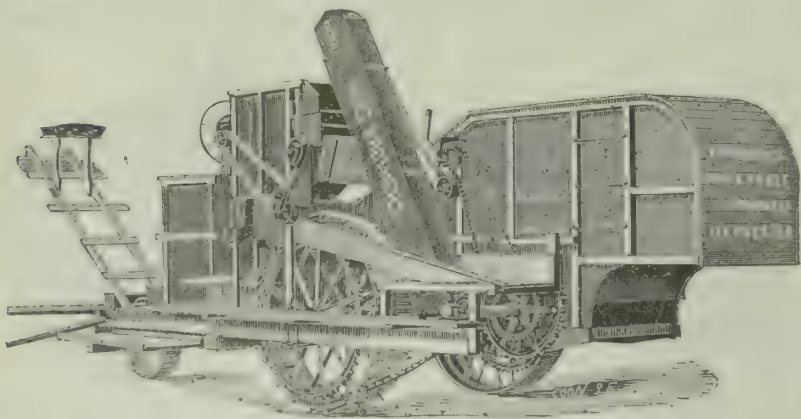
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Storage of Grain per Season not to exceed	\$1 00 per Ton.
Storage of Grain per Month	25 "
Grading Wheat	50 "
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After twenty years' experimenting on the different modes of curing fruit, I feel confidence in coming before the public with a FRUIT-DRIER, which is as

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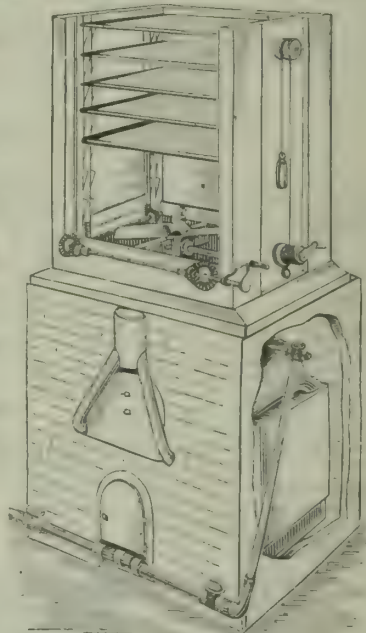
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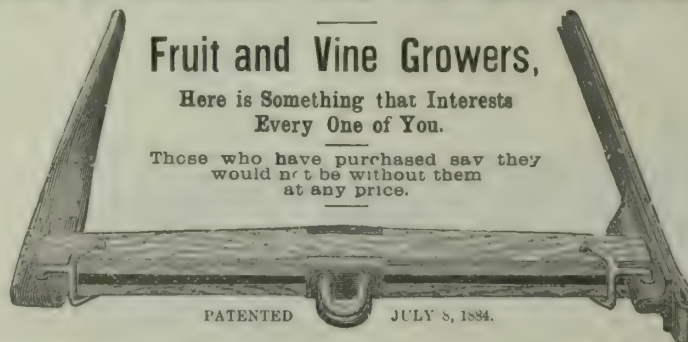
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Every One of You.Those who have purchased say they
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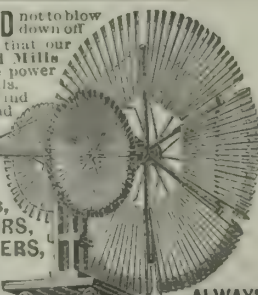
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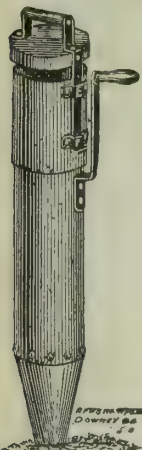
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Illustrated Catalogue and Price List for the season of 1887-88 free to all sending for them. All Trees, Vines,
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kind that will germinate. It will be packed in barrels as usual. Please send in your orders early so that we can
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to investigate the mysterious Vine Disease.
All the powder used by them in their recent
experiments was the ONGERTH INSECTI-
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20,000 pounds have been shipped to the
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See Official Report in Rural
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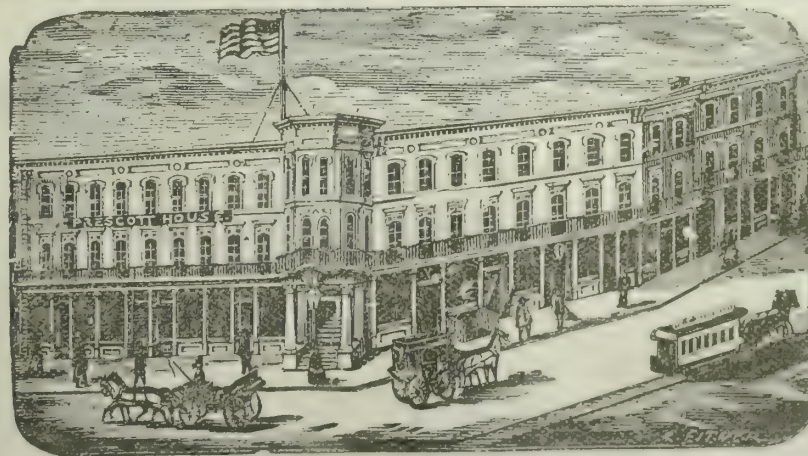
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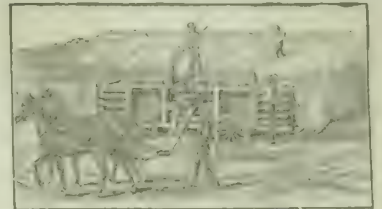
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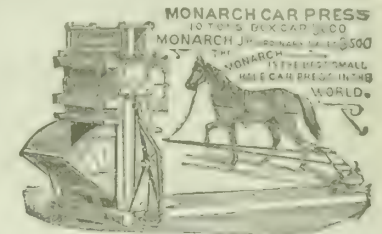
A mounted, horizontal hay press. Size of bale,
when in the press, 14x24x46 inches. Average weight of
bale, 220 pounds. Capacity, from 16 to 20 tons per day.
Uses 4 men and works with 2 horses. Requires no
tramping. Puts 10 tons or over in a box car.

Price.....\$1000.

THE HURRICANE—Size B.

Size of bale in press, 22x24x46 inches. Average weight
of bale, 260 pounds. Capacity, from 20 to 35 tons per
day. Uses 5 men and works with 1 or 2 horses, at option
of baler. Requires no tramping. Uses rope or wire.
Puts from 7 to 8 tons in a box car.

Price.....\$1000.



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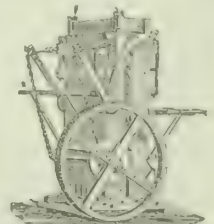
Size of bale in press, 22x24x46 inches. Average weight
of bale, 260 pounds. Capacity, from 15 to 20 tons per
day. Uses 3 or 4 men, at option of baler. Works with
1 or 2 horses. Uses rope or wire. Does its own TRAMP-
ING. Puts from 7 to 8 tons in a box car.

Price.....\$500.

THE MONARCH.

Same principle as Junior Monarch, only smaller and
heavier. Size of bale, when in press, 17x20x40 inches.
Average weight of bale, 220 pounds. Capacity, from 12
to 20 tons per day. Requires 3 men and 2 horses. Uses
wire only—rope will not hold. Does its own TRAMPING.
Puts 10 tons or over in a box car.

Price.....\$600.



THE GENUINE PRICE PETALUMA.

Size of bale in press, 24x24x60 inches. Average weight
of bale, 250 pounds. Capacity, from 10 to 18 tons per
day. Requires 4 men and 2 horses. Uses rope or wire.
Hay must be tramped into the press. Puts from 5 to
6½ tons in a box car.

Price.....\$350.



THE IMPROVED EAGLE.

Size of bale in press, 26x26x60 inches. Average weight
of bale, 235 pounds. Capacity, from 10 to 15 tons per
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Hay must be tramped into the press. Puts from 4½ to 5½
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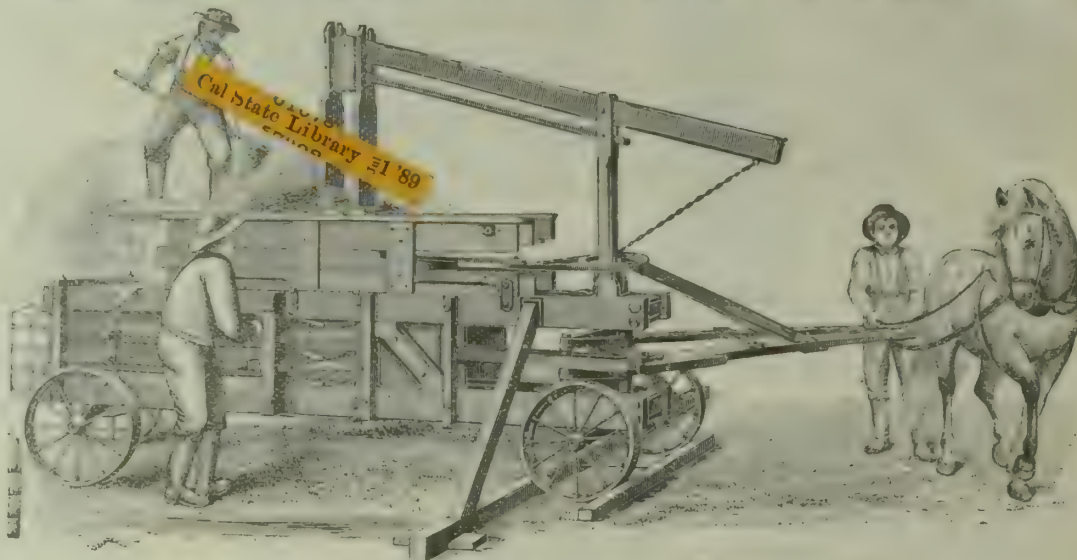
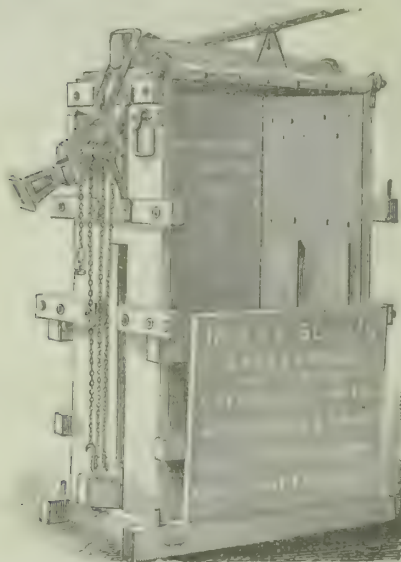
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DEDERICK'S TOP-FEED REVERSIBLE LEVER PERPETUAL PRESS



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No. 1.—Size of Bale, 46x25x24; Weight of Bale, 200 pounds; Weight of Press, 850 pounds; Price, \$125.

No. 2.—Size of Bale, 49x27x28; Weight of Bale, 300 pounds; Weight of Press, 1500 pounds; Price, \$175.

IMPROVED FOR 1889.

Price (17x22, Variable Length, Mounted on Truck, Weight 4700 pounds) \$450.

These Presses may be operated by either one or two horses, and they press two sections to each half-turn and reverse of the horse, which is twice as fast as any other Press, operating half-turn and reverse; with all other Presses the horse must turn about to draw the power back, besides having to stop to bind and remove the bale, whereas our Reversible is our Patent Continuous Press without stopping to bind or remove the bale, and the power is reversed by the reaction of the pressed material, which method is secured to us by patent, hence the movement of the horse either way presses a section of a bale. Reversing the horse requires a driver, but gives satisfaction. The Press is otherwise the Perpetual or Continuous Press, with open feed orifice, screen bottom and all improvements. By a late improvement we have doubled the power of this Press; one horse will now do the work on it that two will do on Presses made in 1881, and we have also adapted and added our Patent Condensing Hopper, by means of which it may be fed with much greater ease and rapidity, as it is hard and disagreeable work to feed hay in its loose state into any Press without the aid of our Condensing Hopper.

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THE MILLER LIGHTNING HAY PRESS.

CAPACITY 30 TONS PER DAY,

PATENTED

May 25, '85.

For Standard Size Baling Press,

Or seven and a half tons per day for each man employed, which is more than has been or can be accomplished by any other Press yet manufactured. Twenty tons a day with Tight Baling Press. Can put ten tons in a car. Satisfaction guaranteed.

Does not require Hay Stacks built to suit our Press.

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TO ORDER

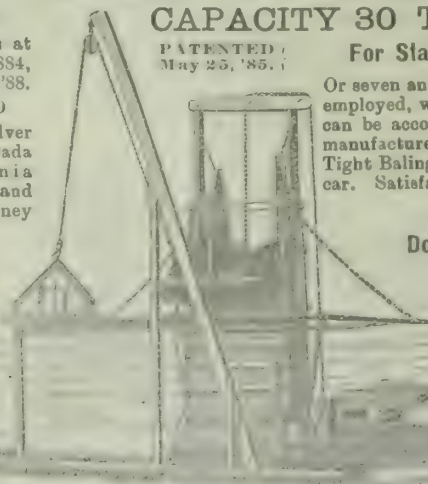
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First Premiums at State Fairs, 1884, 1885, '86, '87 & '88.

AWARDED

Gold and Silver Medals at Nevada and California State Fairs, and won contest money of \$50.

Requires but Four Men and Two Animals to do Rapid Work.



HOUSER COMBINED HARVESTER

Received First Premium, State Fair, Sacramento.

No Experiment!

No Failures

NINE YEARS IN THE FIELD.

500 IN FIELD USE.



None Ever Returned.

They have a larger sale than all other Harvesters combined. Built for heavy work and large grain fields with heavy grain. Always victorious in competitive trials. They have reduced the cost of Harvesting to less than \$1 an acre, and save three bushels an acre over and above Heading and Threshing. Have our Premium Extra "Star" Double Shoe Cleaner, the only successful Harvester Cleaner made. Received First Premium in 1885.

WOODLAND, Sept. 19, 1888.

Stockton Combined Harvester and Agricultural Works
GENTLEMEN: The 11-foot Houser I bought of you this season fills the bill right up to the handle. I have cut 1200 acres; have threshed 625 bags of wheat in one day, averaging 30 bags for six days. The Star Cleaner and Improved Shoe are perfect, and last, but not least, I turn a square corner and save all the grain.

J. R. JONES.

YUBA CITY, Sept. 13 1888.

Stockton Combined Harvester and Agricultural Works
GENTLEMEN: I have one of your Star Cleaner and Improved Shoes on my Houser Combined Harvester, and can say that the cleaner is far superior to any I have ever seen in barley, being able to return unboarded barley and pieces of heads direct to the cylinder, something that everybody can appreciate that has run a Harvester. The cleaner is of sufficient capacity, I having threshed 650 sacks a day. It is well made and very durable. The new shoe is perfection. I consider the Houser very strong and durable, and as light draft as machines of lighter build of same capacity.

A. GRAFFIS.

HOGA, Nov. 25, 1888.

Stockton Combined Harvester and Agricultural Works
GENTLEMEN: I bought one of your 16-foot Houser Harvesters this season and cut my crop of 1200 acres with same without any expense for extras. The Star Cleaner and Improved Shoe are perfection. Heretofore, when using another make of Harvester, I had to have all my grain recleaned at an expense of \$800 or more, but with my machine it was not necessary, as the grain was clean enough for seed as it was taken from the spout, and I only regret that I did not buy one two years ago, and I would have saved over \$5000. I prefer the Improved Houser to any other make of Combined Machines, and would recommend it to my friends in need of a Combined Harvester.

W. S. RIDDLE.

YUBA CITY, Oct. 15, 1888.

Stockton Combined Harvester and Agricultural Works
GENTLEMEN: The 16-foot Houser Harvester that I bought of you this season, with the Star Cleaner, gave entire satisfaction, and, I think, is the best Harvester in the market. Will recommend it to anybody or friend that wants to buy a Harvester.

J. W. HUMPHREYS.

The "STAR"
Double Shoe
CLEANER

FOR -
COMBINED HARVESTERS,

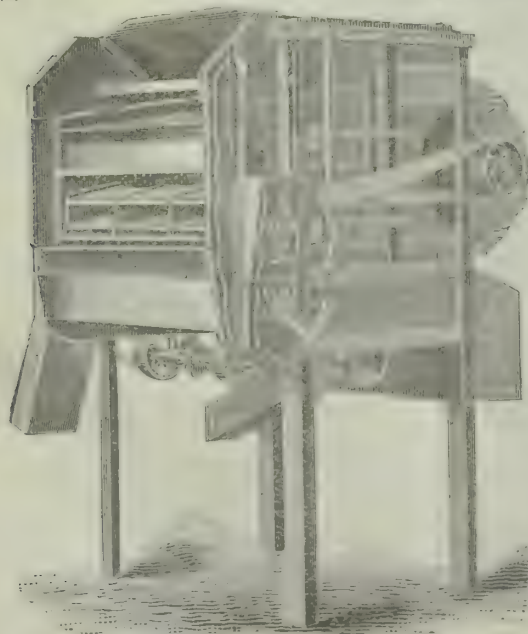
Awarded First Premium at State Fair, Sacramento, Sept. 24, '87.

(PATENTED.)

The "STAR" Double Shoe CLEANER

FOR -
STATIONARY THRESHERS

We also build to order the "Star" Cleaner with sufficient capacity for any threshing machine. It is mounted on trucks and can be set by the side of any "thresher," the power being transmitted to it by means of a counter shaft on the thresher, or belt from the engine. The grain is conducted to the hopper by an elevator extending from the grain auger of the thresher to that of the Cleaner.



Also Manufacturers of "Star" and Angle Sieve Grain Cleaners, Curved Standard Gang Plows and Plow Extras, Passenger and Freight, Motor, Cable and Horse Cars.

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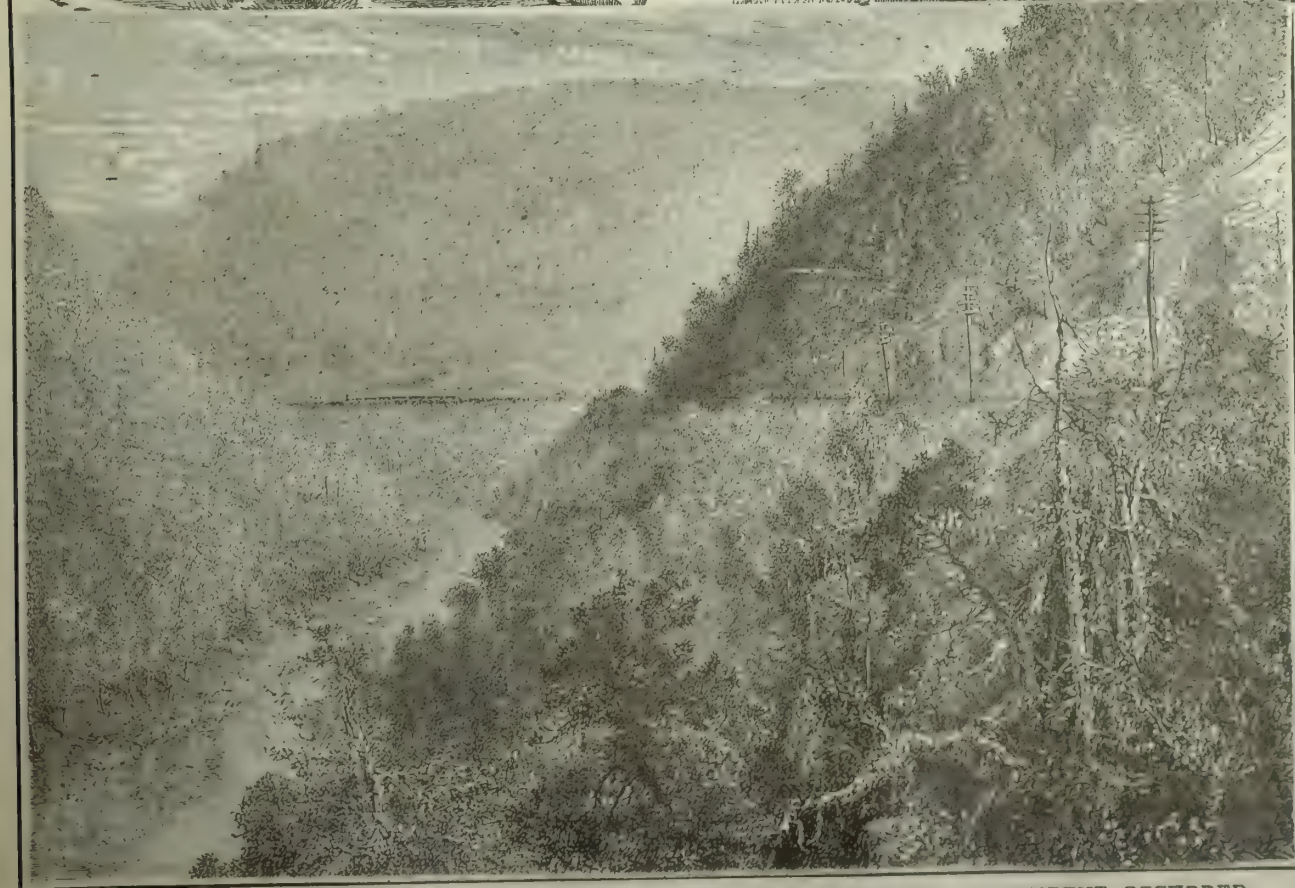
PACIFIC RURAL PRESS

TWENTY-FOUR PAGE EDITION.

Vol. XXXVII.—No. 23.

SAN FRANCISCO, SATURDAY, JUNE 8, 1889.

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The Great Disaster in Pennsylvania.

Amid such charming natural scenery as is portrayed in the engravings on this page has just occurred a calamity which the *London Daily News* describes as the "saddest and most striking and most overwhelming misfortune that ever befell the people of the English race." At five o'clock on Friday morning, May 31st, a tremendous reservoir at the headwaters of the Conemaugh river, in Pennsylvania, burst its restraining dam under pressure of an unusual fall of rain upon its watershed and precipitated its immense volume of water upon the valley through which the river flows. This reservoir, the accounts say, was maintained for the pleasure of a Pittsburg club, who gave bonds of three million dollars as a surety to the dwellers along the river bank who protested against the maintenance of a body of water three miles long, one mile wide and 70 feet deep as a constant menace to life and property in the valley below. But the waters had no respect for the bonds of the Pittsburg club, and when the floods came its water was thrown into the Conemaugh, a bright little stream which empties into the Alleghany river about 30 miles above the point where it joins the Monongahela to form the great Ohio river. One of our engravings shows the Conemaugh at what is termed the "Packsaddle," a riotous portion of the stream where freight has to be carried on saddle from smooth water above to smooth water below the rapids. The other engravings are of scenes in

(Concluded on page 548.)

THE CONEMAUGH AND ADJACENT VALLEYS—SCENES AMID WHICH THE GREAT ACCIDENT OCCURRED.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

Vacation Days in the N. C. B.

EDITORS PRESS:—In the earlier springtime a certain weariness of one's external surroundings steals on as surely as the budding leaves and the shower of blossoms. City life, and even the well-ordered suburban gardens, grow strangely contracted and unsatisfactory. The mathematical precision of the street-crossings are a weariness; the equidistant lines on concrete walks, and the interminable lines of shade trees, are not less so—they may be a product of high civilization, but in such conditions of the mind, grow sadly unsatisfactory. There is even a lack of picturesqueness in the adjacent roofs and chimney-tops. There is a longing to hie away to an unbroken wilderness, where there shall be no lack of breathing space or wideness of landscape. One needs, in these moods, miles of length and breadth, so far as the eye can reach or be carried by a fine field-glass. In the long ago, a primitive method of securing machine-power was a treadmill, set at an angle and perambulated by a yellow dog of most discouraged aspect. The longer he climbed the less the hope grew of reaching beyond his present standpoint, and the head and tail dropped lower and lower.

Just when one comes into full sympathy with this ancient yellow dog, is the time to look up stoche and ulster, turn the key on Lares and Penates, and take the first train which follows the rivers to their sources—away among the mountains, to revel amid wild flowers, water-falls and rivulets, for the "healing of the leaves" is a promise to the uttermost. Friends may fail us—Nature, never! Thus irresistibly drawn we sallied forth, fresh from the Easter surroundings, to look for the emerald velvet mantle, sure to be in evidence—fringed and girdled with starry blooms—with which mountain and valley would surely honor the Easter-tide. We found them before the sun-light had risen above the fog-bank; and like a kaleidoscope were the variations. It is said that Worth, the man milliner, came recently to the end of his inspirations, and, in his extremity, sought them anew in the lights and shadows of the valley—in the uncurling fronds, with their terra-cotta lining and pale-green tips—in the gray-greens of the olive and the brighter tints of the pussy willows; and lo! the draperies of the fashionable world and the delight of its votaries therein.

All of these we saw—and many another. The valley of the Sacramento would be a bonanza at this season to the artist and the weary caterer, to whom a fresh combination of color is a revelation. The rose-gardens were in their fullest glory as we dashed along, and lilac and syringa and snow-ball added their fragrant charm. Above Sacramento we enter the cream of the valley. Culture and patient waiting is rendering it a garden wherein grow fruits of all climes; while wild flowers, prized and cultivated in Eastern gardens, are brightening valley and hillside.

Before reaching Marysville we come upon the promising colony of

Colmena.

The youngest of the family, if not the least ambitious. One needs no vivid imagination to picture orange groves and umbrageous shades, whose promise lies in infant rows of citrus and deciduous trees, to which the plentiful spring rains have given a fostering care. A new life seems inspired all through this region. Slow to develop faith in the results of the anti-debris law, now one can see it everywhere in the bright little homesteads and budding orchards, of which multiplied thousands are needed in this State. It is in this direction that the enterprising colonies are doing a work whose value the future will fully illustrate. With climate and soil, and more than all, water assured, the owner of a young orchard has only to summon a reasonable store of patience, either as a resident or non-resident, and the reward will surely follow. The next colony we visited was

Thermalito.

Than which no other possesses a stronger claim to future attractiveness and value. Still in its incipiency, and backed by no colossal bank account, it is quietly making good its claim to a paramount natural beauty of location and adaptation of soil and climate to citrus culture. It lies eighty feet above the pretty little town of Oroville, and on the opposite bank of Feather river, overlooking the beautiful valley beyond, defining at the horizon line the distant Bates on the one hand and on the other Table Mountain and the far distant snow peaks of the Sierras. The amphitheater form of the plateau insures its thermal conditions, as also its altitude. A red clayey loam, charged with gravel, gives at once strength, warmth and drainage. The little ten-acre citrus and olive orchards are a promising feature in a landscape of great beauty. In a few years these will be capable in themselves of supporting a numerous population. Even now some lovely little homes are in course of preparation, and the Bella Vista, a handsome and commodious hotel, will be a rendezvous in the near future, helping to solve the question of "Where shall we spend the spring months?" Nowhere is a sweeter atmosphere or purer mountain water at this season. The Citrus Association's fine young three-year-old orchard

will bend beneath its weight of golden fruit later in the season, and a portion will be required to be removed to avoid injury to the trees. The Citrus Exhibitions of the last two years have drawn attention to Oroville, and many visitors have admired the gardens, whose crowning beauty is either in their roses or orange bloom. One can hardly at this season decide in which lies the greater attraction. Commercially, the latter, perhaps, and esthetically, the former.

Palermo.

The following day we were invited to visit the finely developing colony of Palermo, of which one sees and hears so much of late. The drive over five miles of perfect highway gave evidence on either hand of enterprise—young nurseries springing into life—and every one at their busiest to make these spring days tell on their future fortunes, men and teams working at high pressure, but the reward is with them, and before many days.

We passed the new grounds, just assuming shape, of Villa Verona, with its fine location and frontage of palms. A limited amount of work has been done here, but the future will doubtless show some fine developments.

Soon we reach the scattering groves of white oak, the queen regnant of the Oak family, just enough of them to suggest shade for the heated days of midsummer. Then some artistic dwellings built for non-resident owners, and orchards planted for them as well. All this sounded a little after the fairy-land legends. Houses and citrus groves and flower gardens do not usually grow without hands, and the hands of the owners at that. One rarely is given the privilege of walking out of a train of cars into one's own home all prepared for him, in a new country so recently almost a wilderness. It seemed like magic, but a visit of a few hours revealed the secret. The manager's hand and eye were everywhere, and apparently at one time, reminding one amusingly of the days preceding a Presidential election; in the button-holing process at every turn. Col. Ludlum shows to visitors the beauties of Palermo most satisfactorily, with a full understanding of soils and locations adapted to each want. The orchards planted last year are a standing witness to the value of the soil and location. No expense is being spared to develop the resources of this colony, and every variety of fruit, tropical and semi-tropical, and temperate, is finding a home there. Senator Hearst is trying some valuable experiments in this colony, where he has purchased 800 acres of land, nearly all of which is being put out into fruit. One of his experiments is the culture on a large scale of the Adriatic fig. Being warned of the imperfect knowledge at command concerning the perfect curing of the fig in California, he replied: "Then we will import a man who does understand it." So with the possible advent of a veritable "Smyrniote," the Gordian knot may at last be managed. Certainly no greater boon could be given to orchardists at this juncture than a shipload of "Smyrniotes." So large a part of the State will raise the fig to perfection that the world might be supplied from the "land of the setting sun." In this region the fig becomes a monarch of the orchard, its arms reaching forth to the right and left regardless of neighboring growths and overshadowing all. Next to the citrus and olive it has the most manifest destiny in the near future.

All too soon came the homeward drive, and as we journeyed swiftly forward, we drank in new draughts of freshness and beauty, and longingly wished that Easter week possessed countless properties, stretching onward many days.

Oakland.

I. G. WINTON.

In San Luis and Santa Barbara.

EDITORS PRESS:—Eight miles south of Arroyo Grande, of which I gave some account on a previous visit, is the new town of Nipomo. Unknown on map and perhaps unborn in the imagination of its energetic projectors two years ago, it sprang forth within about one year a full-fledged city, only lacking the machinery of city government. A destructive fire visited it last fall, sweeping away a number of the best buildings. This calamity being succeeded by a dearth of immigrants, leaves it, mildly speaking, just a little dull at present. The site is in the heart of the Nipomo valley, so named from the Indian tongue, and meaning "at the foothills." It is a beautiful tract of country bordered by smooth, rolling grass-covered hills on either side, and is embraced by the Nipomo Rancho, 38,000 acres in extent. The early proprietor, Capt. W. G. Dana, deceased, is represented by eleven sons and one daughter, nearly all of whom still reside in the valley and are highly respected. The estate has been sub-divided into small tracts by the Danas, and the placing of the same upon the market caused the marvelous growth of the town. To Mr. Krider, editor of the Nipomo News, whose printing office was among the first buildings erected, much credit is justly accorded in the matter of attracting attention to the advantages of the town and valley.

About six miles farther south is located the

Santa Maria Valley.

And the young city of that name. The population of the latter is about 1200, has several good stores which carry a heavy stock, shops of different kinds, hotels, restaurants, etc.

Of the hotels, the Hart house is worthy of more than a passing notice, being one of the best in the State for a town of the size of Santa

Maria. It was erected in 1887, by Reuben Hart, its present proprietor, at a cost of \$35,000; is of brick, two stories high, and contains 60 large, airy rooms. The grounds to the rear are being improved in the highest style of art by the introduction of an endless variety of tropical and semi-tropical plants, trees, vines and shrubbery. Mr. Hart supplies a large portion of the town with water from his steam pumps. R. D. Cook, another enterprising citizen and business-man of the place, furnishes a portion of the water. Mr. Cook's homestead furnished a portion of the land upon which the town is located. Other intelligent, thorough-going business-men of the place whose acquaintance I formed are the Kaiser brothers, real estate dealers and orchardists, and L. E. Blochman, connected with the mercantile house of Weilheimer & Coblenz, and a practical fruit-grower of the valley. The Kaisers' fruit farm is located 12 miles southeast of town, consists of 70 acres of English walnuts and 50 acres of prunes, the largest devoted to these special varieties of any fruit farm in the valley. The trees are just coming into bearing and promise a great success. The proprietors intend to enlarge their orchard speedily to 250 acres. Mr. Blochman's fruit ranch is in the same neighborhood. This gentleman makes a specialty of Bartlett pears and apples, of which he has 2000 thrifty young trees, and is also preparing to greatly augment his tree planting. This section is evidently destined to become a great fruit-growing center, from the fact of its being in point of soil and climate so admirably adapted to the business.

The New Town of Garey.

Named after its energetic proprietor, Thos. Garey, late of Los Angeles, is centrally located here, 11 miles from Santa Maria. Though still in embryo, the people of the neighborhood predict it a bright future. It has a good country to support it. Mr. Garey is a practical nurseryman and fruit-grower, having pursued horticulture in Los Angeles county. He has established a nursery at Garey with 15,000 orange trees ready for the market. Olive-tree planting is beginning to engage attention. Mr. A. Ontiveros has the largest plantation of olives in the valley.

The extent of the Santa Maria valley is estimated at 200,000 acres, about two-thirds of which is good, tillable land, the price of which ranges from \$25 to \$100 per acre. Between Santa Maria and the ocean, about a dozen miles, the chief pursuit is dairying. There was shipped from Santa Maria depot during the month of March 132,000 pounds of butter, and during April 170,000 pounds.

That your numerous readers elsewhere may have a more definite idea of the progress that has been made here in horticulture during the past two seasons, prior to which it was chiefly a stock range, I will give the figures, carefully compiled from the Santa Maria Times of the 11th inst., of the fruit trees planted during '88 and '89. This list embraces only such orchards as have been planted for profit, and does not include family orchards:

W. L. Runnels & Son, assorted.....	13,000
Kaiser Bros. (walnuts, 1700; prunes, 5000; assorted, 300).....	7,000
Jones & Son, apples.....	1,150
Jones & Mauleby, assort d, 5000; oranges, 600.....	5,600
A. Weilheimer, apricots, 3500; prunes, 1500; assorted, 300.....	5,500
W. Hudson, nectarines, 1000; assorted 500.....	1,500
Mauleby & Baker, Bartlett pears.....	1,000
Perry & Hudson, assorted.....	500
J. Holloway, assorted.....	650
J. F. Goodwin, assorted.....	1,000
Thos. Boyd, peaches, 1000; apricots, 2000; prunes, 1000; Bartlett pears, 500.....	4,500
Wm. Smith, assorted.....	1,000
Capt. Williams, apricots.....	5,000
Isaac Miller, prunes and apricots.....	4,500
J. K. Triplett, assorted.....	2,250
Bagby & Lucas, assorted.....	2,700
M. Beeson, Bartlett pears.....	1,000
M. Carranza, assorted.....	300
W. F. Johnson, assorted.....	2,500
L. E. Blochman, assorted.....	2,000
Jas. Mahoney, assorted.....	1,000
J. G. Prell, assorted.....	500
O. Carranza, a s rted.....	500
Chas. Bradley, assorted.....	500
Wm. Irwin, peaches and pears.....	1,650
H. Carpenter, assorted.....	550
Paul Bradley, assorted.....	6,500
A. F. Clark, assorted.....	2,500
T. A. Garey, assorted.....	500
John Tunnell, oranges.....	1,000
Mr. Huston, assorted.....	1,000
Mr. Woods, assorted.....	1,000
Brookshire & Hobbs, assorted.....	1,000
Abram Ontiveros, assorted.....	800
Sisquoc and vicinity, assorted.....	3,000
Mr. Teatson, assorted.....	2,500
P. Ontiveros, assorted.....	500
E. Morrison, assorted.....	6,000
J. M. Goode, assorted.....	450
Total.....	92,100

In addition to the above, the following are the planters of vines, with their respective amounts set opposite:

J. K. Triplett.....	600
L. E. Blochman.....	2,000
A. Ontiveros.....	60,000
Mr. Teatson.....	1,000
P. Ontiveros.....	5,000

I found many warm friends of the Rural among the citizens of this valley, some of whom have been constant readers for upward of 20 years, and say they should be at a great loss without it. Doubtless your subscription-list will be more than doubled in this valley in the near future. At present the fact must be admitted the farmers are "hard up," notwith-

standing the progress I have noted in this article. The very fact of the improvements mentioned would account in some measure for the deficit, there being no return therefrom as yet. But the unusually low price of every kind of product of the farm is one of the chief reasons that may be assigned for the depression, which fortunately may be regarded as but temporary. The sun of financial prosperity is bound, within a reasonable time, to shed his cheerful beams over this fruitful region.

F. B. L.

POULTRY YARD.

Fanciers and Farmers.

EDITORS PRESS:—It would seem to be quite natural, and in accord with the fitness of things, for the great majority of poultry-fanciers to be farmers. Certainly the farm, or "ranch," as Californians term it, is with its broad acres the ideal place for successful poultry-keeping. A hot, small lot, bald and bare, in city or village, is but a prison pen for fowls compared to the average ranch. Yet it is a singular fact that on this coast, in the Eastern States, and in England—the home of what is known as the "poultry fancy"—the great majority of poultry-fanciers are not farmers. The merchant, the mechanic, the clerk, the lawyer, doctor, all sorts and conditions of men, in villages and cities, make the majority of our poultry-fanciers; here and there is the *rara avis* a farmer who pays some attention to poultry-breeding. The cause of this apparent anomaly is not far to seek. Poultry engages the interest of those city people who have an inborn liking for pet stock and who find in breeding a few fine fowls considerable wholesome pleasure and profit. Often it is taken up as the pastime of an invalid requiring gentle exercise and light employment of both body and mind. Cases altogether too numerous to mention have come to my notice in which poultry-breeding has stimulated hopeless invalids so that they took a new hold on life. Some of them have assured me that but for poultry they would have long since been in their graves. But such considerations as these do not appeal very strongly to the farmer. Generally speaking, he is healthy enough, and the reason he is not a poultry-fancier is solely because he thinks there is no money in it for him. That he is seriously mistaken in so thinking I have not the least doubt in the world. He can't afford to bother with it; has too much other work to do; wife hasn't any too much time to spare, either, he will tell you if you interview him on the subject. Right here is where he makes his mistake. He can afford to bother with it, just as much or more than he can afford to raise wheat, or hay, or vegetables, or fruit. It is something that, all things considered, pays better than any other farm crop, if rightly handled, and if not rightly handled, no farm crop pays. This has so often been demonstrated as a fact that it is almost a truism, still, farmers, as a class, look with suspicion upon the assertion that it will pay an able-bodied ranchman to keep more than a few dozen mongrel hens. Especially does the average farmer look askance at "fancy" poultry, whereas it is the very kind he should keep. Not only is it the best, and the best is none too good, but it is bound to make the farmer a fancier, and nobody who was not a fancier ever yet succeeded largely in the poultry business. Stick a good big pin into that point, for it is worth remembering. The very first essential to success in any business is that one should be thoroughly interested in it, and one great reason why only thoroughbred fowls should be kept is that they are far more interesting than mongrel. It is not the only reason, however. They can be made vastly more profitable. At the present time, on this coast, of course, the demand for fine specimens of thoroughbred fowls is limited, but it is sure to grow and grow fast, too, till it reaches a size approximating that of the East, where such a trade amounts to hundreds of thousands of dollars annually. Even now the money which goes East each season for blooded poultry to supply the yards of California breeders is no small amount. But the indifference, almost hinting at stupidity, of farmers concerning this matter is as general in the East as it is here; in fact it is rather more so there than here. As an illustration: In a certain town in New England there is a shopkeeper who, a few years ago, began to breed poultry. He was not afraid to exert himself and his trade in so-called "fancy" fowls and eggs soon outgrew the accommodations of his village garden. So he went to a farmer, reported shrewd and keenly alive to the main chance, and to him he proposed that they form a partnership, the farmer to supply the fowls and the other sell them. If each performed his part faithfully, it could hardly have failed to be a profitable business. But the farmer doubted and refused to embark. He would not go into any such business, but he agreed to hatch and rear the chicks at so much per head each season. Instead of interesting himself in it thoroughly and sharing the profits, he does all the work, hardly knows one variety from another, while his keen-witted friend has extended his trade to all parts of the United States and is gathering in more coin in one year than the farmer does in five out of poultry.

Another case is that of a young farmer left

with a worn-out farm on his hands six years ago. He thought he saw money in poultry. He went into it determined to succeed. The neighboring farmers were, of course, skeptical as usual; this is a free country, he had a right to make a fool of himself if he so chose. But now, if you chance to visit the neighborhood, you will hear everybody telling of the pile of money this young man has made from his hens, and if you ask him about it, he will show you his books, which demonstrate plainly enough that the old worn-out farm is far and away the most profitable one for miles around. He is both a poultry farmer and a poultry fancier.

This is not to be taken as enthusiastic advice to all farmers to rush at once into poultry raising. Far from it. Make haste slowly applies in this as in so many other undertakings; but though it is best to go slowly, it is best to go. Don't keep a flock of mongrels any longer than it takes you to replace them with handsome thoroughbreds. Don't be afraid to devote some time and some money to your fowls. Don't go into it blindly, but read up the subject, study it, experiment, get interested, become a poultry fancier; and, though you may not grow wealthy exceedingly fast, still your poultry business is pretty sure to pay you well in more ways than one. CHAS. R. HARKER, Santa Clara, California.

"Dead in the Shell."

EDITORS PRESS:—Under above heading Mr. Chas. R. Harker, in the Rural of May 11th, asks: "If I was so soon to be done for, what was I ever begun for?" and states, "This season there is a wide-spread wail that incubator chicks died in the shell, row after row of eggs containing perfectly formed chicks all ready to hatch, but lifeless," and asks that the remedy may be given through the Rural Press. Turning to page 458 of the same issue, F. S. B. of Kelsey states: "We have another incubator full of chicks out to-day. Three weeks ago we placed 280 eggs in the incubator, and to-day we have 240 live chicks in first-class condition." Now it would seem that F. S. B., by giving a detailed description of his methods, could solve the difficulty. In the absence of the same, allow me to suggest that the fault lies in the eggs themselves. At Hammondsport, New Jersey, the business of raising broilers for the New York market is carried on more extensively than at any other place in the United States. This same difficulty of "dead in the shell" met them there, but has been overcome by purchasing eggs from parties who make the production of eggs for incubators a special and profitable business. The conditions required to obtain the best results are: A young, vigorous rooster not akin to the hens; hens to be two years old, as pullets' eggs don't hatch well; chickens to be kept in lots of one rooster to ten hens; fowls to have a good range, an abundance of meat, bone, grass and pure fresh water, in addition to grain, due care being exercised to prevent the fowls becoming fat, as the eggs from a fat hen are either infertile or the offspring weak.

I would like Mr. Harker to try the above, and if, in addition, he will use only eggs laid early in the season, when the fowls are vigorous, I think he will have no cause to complain of bad hatches. E. H. SCHAEFFLE, Murphys, Cal.

SHEEP AND WOOL.

Wool Facts and Figures—No. 8.

[Written for the Rural Press by J. R. F.]

In my last article on "Wool Facts and Figures" an incorrect statement regarding the tariff on wool was made. In 1832 the tariff was amended so that all wools costing eight cents or less a pound should be imported free, and on all wools going above eight cents a pound a duty was imposed of four cents a pound and 30 per cent ad valorem. In 1842 this was changed by Congress imposing a duty of five per cent ad valorem on all imported wools costing seven cents or less a pound, and on all others three cents per pound and 30 per cent ad valorem. In 1846 the tariff was again changed, this time at the urgent request of manufacturers. The duty on all wools costing seven cents or less a pound was retained, but on all others it was reduced to 30 per cent ad valorem. The high tariff, it was alleged, being too onerous on manufacturers of wool, Congress in 1857 passed an Act admitting all wools costing 20 cents or less a pound free, and on all others the ad valorem was reduced 24 per cent. This law continued in force up to 1861, when the exigencies of the civil war caused Congress to levy the following duties: On all wools costing 18 cents or less a pound, five per cent ad valorem; over 18 cents and not exceeding 24 cents a pound, three cents a pound, and all on wools costing over 24 cents a pound, nine cents a pound. At the same time a high range of duties was levied on all goods manufactured from wool. In 1864, what is known as the "Morrill Tariff" was passed and went into effect the same year. By this law a high range of duties was put on manufactured goods to compensate for the duty on the raw material. The duty levied on wool in 1864 was as follows: On all wools costing less than 12

cents a pound, 3 cents a pound; costing from 12 to 24 cents a pound, six cents a pound; costing over 24 cents but not exceeding 32 cents a pound, 10 cents a pound, 10 per cent ad valorem; costing over 32 cents, 12 cents a pound, 10 per cent ad valorem. To meet the urgent requirements or demands of wool growers, Congress in 1867 changed the tariff as follows: On clothing and combing wools, costing 32 cents or less a pound, the duty was made 10 cents a pound and 10 per cent ad valorem; on carpet wools, costing 7 cents or less a pound, three cents a pound; and costing over 12 cents a pound, six cents a pound. On all washed wools a double duty was levied, and a treble duty on all scouring wools. In 1872 the duty was reduced 10 per cent, but in 1875 it was raised to the figures of 1867. In 1883 and which is now in force, the ad valorem percentage was stricken off of clothing and combing wools, leaving the duty 10 and 12 cents a pound according to first cost. The duty on carpet wools was reduced to two and a half cents on all costing 12 cents or less a pound, and one cent on all costing over 12 cents a pound.

The following table, compiled from official sources, shows the quantities of wool produced in, and imported into, this country, from 1839 to 1887:

Year.	Production. Pounds.	Imports. Pounds.
1839.....	35,802,114	79,898,740
1840.....	52,516,959	18,095,294
1849.....	60,284,912	26,282,955
1862.....	106,000,000	75,121,728
1863.....	123,000,000	91,250,114
1864.....	142,000,000	44,420,375
1865.....	155,000,000	41,287,988
1866.....	164,000,000	38,158,382
1867.....	163,000,000	25,467,366
1868.....	180,000,000	30,275,926
1869.....	162,000,000	49,230,199
1870.....	160,000,000	63,058,028
1871.....	150,000,000	126,507,400
1872.....	158,000,000	85,496,049
1873.....	170,000,000	42,939,541
1874.....	181,000,000	54,901,760
1875.....	192,000,000	44,642,836
1876.....	200,000,000	42,171,192
1877.....	208,250,000	48,449,079
1878.....	211,000,000	39,005,155
1879.....	232,500,000	128,131,747
1880.....	240,000,000	55,984,236
1881.....	272,000,000	67,861,744
1882.....	290,000,000	70,575,478
1883.....	300,000,000	78,350,651
1884.....	308,000,000	70,596,170
1885.....	302,000,000	129,084,958
1886.....	285,000,000	114,038,030

For the year ending September 30th; others for the fiscal year ending June 30th.

In connection with the above, the following prices for clothing fleece wool, in the New York market, in the month of July, for the following years, as compiled by Maugur & Avery, of that city, will prove of interest. (Currency prices from 1862 to 1878):

Year.	F.	M.	C.	Year.	F.	M.	C.
1834.....	55	40	70	1856.....	55	42	36
1835.....	50	41	32	1857.....	56	50	40
1836.....	37	30	26	1858.....	43	37	30
1837.....	37	31	25	1859.....	56	40	35
1838.....	48	38	33	1860.....	55	50	40
1839.....	46	36	32	1861.....	38	30	22
1840.....	60	50	40	1862.....	48	47	45
1841.....	75	65	70	1863.....	75	70	65
1842.....	50	42	30	1864.....	100	100	90
1843.....	61	54	40	1865.....	75	73	65
1844.....	60	50	40	1866.....	70	67	60
1845.....	63	56	42	1867.....	55	49	43
1846.....	70	60	50	1868.....	46	45	43
1847.....	52	52	36	1869.....	48	48	47
1848.....	46	36	30	1870.....	46	45	43
1849.....	67	43	40	1871.....	62	60	55
1850.....	45	39	33	1872.....	72	70	65
1851.....	50	44	34	1873.....	50	48	44
1852.....	43	37	30	1874.....	53	53	45
1853.....	35	30	26	1875.....	52	49	46
1854.....	45	37	32	1876.....	38	35	31
1855.....	40	36	30	1877.....	50	44	37
1856.....	38	32	27	1878.....	36	34	32
1857.....	46	40	31	1879.....	37	38	34
1858.....	38	32	28	1880.....	16	18	12
1859.....	40	35	28	1881.....	4	44	36
1860.....	45	37	30	1882.....	42	45	34
1861.....	47	42	37	1883.....	39	41	33
1862.....	45	38	33	1884.....	35	34	30
1863.....	60	53	48	1885.....	32	31	28
1864.....	46	37	30	1886.....	33	33	29
1865.....	50	40	33	1887.....	34	38	35

I take the prices ruling in July, for that is generally the month in which the heaviest offerings of new clip are made at the East. The average price of wools in currency over the gold parity was about 20 per cent. For instance, in the above table fine wool was quoted in 1867 at 55 cents, when in gold it was 47½ cents. The gold prices of fine wools were as follows in the following year: 1868, 36½ cents; 1869, 36½ cents; 1870, 35½ cents; 1871, 43 cents; 1872, 64½ cents; 1873, 64 cents; 1874, 49½ cents; 1875, 48½ cents; 1876, 42½ cents; 1877, 40 cents; 1878, 45½ cents.

Taking the production and importation of wools in connection with the duty and prices, and it is an interesting study to wool-growers as well as wool-dealers and manufacturers.

The tariff of 1832, according to the veteran wool broker, G. W. Bond, of Boston, Mass., was known as the compromise tariff, and offered ample protection to manufacturers, giving them fairly prosperous times up to 1837, when the first serious financial crash in this country came. In this panic the wool interests suffered along with all other industries, but began to rally in 1839, which proved only temporary owing to the reduction in the duty on manufactured woolen goods being greater than was that on the raw wool. The United States being practically out of the markets of the world, allowed of less competitive buying, and consequently foreign wools declined in the supply markets abroad, which gave foreign manufacturers of woolen goods a decided advantage over American manufacturers, causing our markets for the goods to be flooded with foreign imports, and forcing American manufacturers either out of the market for wools or else compelling them to pay very low prices so as to compete with foreign imported goods. Under the tariff

of 1842 there was for a while quite an impulse given to the manufacturing industry and wools slowly revived; but it was not until after the passage of the tariff of 1857 that the industry was put on a good footing, for by this Act the tariff on manufactured goods was higher proportionately than on the raw wools. The history of that period states that just before the law went into effect there was a spasmodic revival of the woolen industry, which was followed by a disastrous crisis, forcing many corporations to the wall, and for a time in 1858 prices were very low, but they soon began to advance, and in 1859 they were again quite high. This was brought about, to a certain extent, by the advance of wools in the foreign supply markets under stronger competitive buying, which necessarily forced up the price of woolen goods abroad, and in sympathy with which the markets moved up. Following the passing of the "Morrill Tariff" in 1864 the wool-growers of the country held a convention at Syracuse, New York, so as to bring strong influence on Congress to have the Act revised, for it was found that by the "Morrill Tariff" large quantities of Buenos Ayrean wools, dirty and burry, but otherwise good, came into this country at less than 12 cents a pound, paying a duty of less than three cents a pound. At this convention it was insisted that the Act should be revised to read, by adding a clause as follows: "Wools costing 12 cents a pound, except such as are of merino blood, immediate or remote." This had a contrary effect to what its authors expected, for as soon as Congress conformed to the wool-growers' wishes the sheep industry received a decided impetus, and led to the extension of wool-growing west of the Mississippi river. This gave to the older States a stronger competition than they had received from abroad.

Confident of the passage of the Act, wool-growers not only improved their breed of sheep, but increased their flocks; besides, many new men embarked in the industry. Manufacturers and wool-dealers also, in anticipation of the passage of the Act, sent orders abroad for wools, and when the tariff went into effect the markets in this country were overstocked. In addition to this, large quantities of army clothing, accumulated during the war, were thrown on the market at exceedingly low prices, which added largely to the dullness of the demand for wool from manufacturers.

Writing on the depression of that time, one of the largest and best-informed wool-growers in the Central States wrote about three years ago to the *National Live-Stock Journal* as follows:

"In 1862 the quantity of domestic wool produced was, in round numbers, 106,000,000 lbs.; in 1872, 158,000,000 lbs., and in 1882, 290,000,000 lbs. The product of 1886 is estimated to reach 308,000,000 lbs. The number of sheep in the country increased in the 20 years from 1840 to 1860, 16 per cent; but the increase in wool was 41 per cent in the same time. From 1860 to 1880 the percentage of increase in numbers was nearly 100, while the increase in yield of wool was over 300 per cent. These figures show great increase in weight of fleece, as compared with increase in numbers. In 1840 the average weight per fleece was 1.85 lbs.; in 1860 it was 2.68 lbs.; in 1870 it was 3.52 lbs., and in 1880 it was 4.79 lbs. From 1859 to 1865, under a nominal tariff, fine wool brought the highest prices ever known for a series of years. In 1867 the wool was protected by a high tariff, and prices went down so low that in the one year, 1868, the records of the Department of Agriculture show 4,000,000 sheep killed for their hides and tallow alone. The depression in wool-growing was far greater than since the lower tariff of 1883. In 1865, under a low tariff, I sold merino wool for \$1 per pound. The next year I got 65 cents, and in 1868, less than 40 cents. I learned then to look for some other cause than tariff duties which would influence prices of wool. The kind of cloth chiefly worn in 1866 has gone almost entirely out of use. Tastes have changed on both sides of the water, and the manufacture has changed accordingly. Different goods are now needed to satisfy general demand, and different materials are required for these goods. To produce the woolen goods made in 1866 it took about 155,000,000 lbs. of domestic wool, and 76,500,000 lbs. of imported wool. In other words, we produced two-thirds of the wool used in making the cloth we needed."

While the wool-grower quoted above gives much valuable information, yet there were other influences at work to depress the market, as given in my remarks preceding the above extract.

The depression of the wool market continued up to 1871, when it is claimed that the home production had fallen off over 30,000,000 pounds a year. Besides this, about this time the surplus of woolen goods which had weighed heavily on the market was worked off, consequently more buying orders for goods came in, causing the industry to change front for the better. Machinery that had been idle was started up, and the wool market began to revive under renewed orders which carried prices well up. The upward move in prices was stopped at about this time by a rapid fall in the prices of wool abroad, causing dealers and manufacturers to send abroad large orders for wools. The depression abroad was caused by the Franco-Prussian war. This war caused, for a time, prices in the supply markets abroad to sink to lower figures than were touched either before or since, except, perhaps, in the latter part of 1885. The large purchases made by this coun-

try in 1871 and 1872 aided, with the return of peace, in bringing about a reaction abroad, and caused prices to advance quite rapidly. High prices were maintained up to about 1879, or at least they did not go below low-paying rates previous to that year. Another favorable influence on the market was the destruction of a large quantity (31,000,000 pounds) by fire, in Boston, Mass., in 1872.

Soon after 1879 opened, wool, particularly second-class, was in light demand abroad, falling in prices comparatively as low as did fine wools in 1870. This was caused by alpacas and other luster goods for women's wear having gone out of fashion. (These goods are now coming into fashion.) This necessitated the using of large quantities of second-class wools for the making of coarse fabrics generally known as "cheviot goods" for men's wear. As our fashions are largely taken from Europe, these goods had to be brought from England, and at the same time large orders from our manufacturers went abroad for wools for similar use here. The prices by this competition were advanced in England alone from 10d in August, 1879, to 18d in April, 1880. This checked the further importation of cheviot goods to this country. In this country the demand for these goods was met by manufacturers who mixed the coarser grades of home wools with the finer wools, which gave them a feeling and character resembling English cheviot. In 1880 the demand for these goods fell off, which reacted against the wools that entered into their manufacture. This falling off caused the inquiry for this class of wools to cease, sending prices down to low figures and thereby entailing heavy losses on holders. It is stated that one large importation of wools to manufacture cheviot goods was sold in Boston at less the cost of duty alone.

HORTICULTURE.

Exemption of Fruit Trees and Vines from Taxation.

EDITORS PRESS:—The Legislature at its last session so amended the State revenue law as to exempt fruit trees and vines from taxation.

This Act of the Legislature is ignored by the State Board of Equalization as contrary to the provisions of the State Constitution, and they have issued a circular to the several county assessors to disregard its provisions.

Now as to county assessors, their duties are defined by law. They are not to observe the advice of the State Board of Equalization when such board advises the county assessors to disregard the law and be governed by a decision of the Supreme Court in its construction of the law as it stood in 1884.

In the case of *Cottle vs. the Assessor of Santa Clara county*, the Supreme Court held (and perhaps properly) that by the term growing crops under the common and restrictive acceptance of the term, nothing more would be understood than the products of annual plants or cereals, maize, etc., and the latter appears to be the sense in which the term is employed in technical legal parlance. The court further decides: "It may be conceded, and correctly, that at the present day in this State at least, the word 'crop,' taken in its most comprehensive sense, includes fruit grown on trees; but we think it can be affirmed without serious contradiction that trees themselves never have been included in the term."

Now I believe the right and power of the Legislature to define terms, to enlarge and change their meaning, has never been denied. Up to last winter's session of the Legislature, the term "growing crops" had received no legislative definition, and the Supreme Court in the case above referred to felt compelled to restrict the meaning of the term to its ordinary acceptance. It had no legislative definition to guide it in its decision. But the Legislature having now defined the term "growing crops," as under its power to give and enact the meaning of terms it has an unquestioned right to do, the decision of the Supreme Court on this question has no application.

The Constitution nowhere defines the term "growing crops," but simply exempts them from taxation. The definition of terms is by the Constitution wisely left to the wisdom and discretion of the Legislature.

The State Board of Equalization in its instructions to county assessors, in its zeal to have everything in sight specially assessed, seems to have overlooked the power of the Legislature in the matter. But this is not the worst feature in the case. In those counties where assessors observe the directions of the State Board, the legality of the whole assessment is put in jeopardy. The courts have uniformly held that when an illegal assessment has been made, any tax levied therein is void, and a sale of property so assessed, by reason of non-payment of such tax, conveys no title to the purchaser of such property. The State Board of Equalization has no power to determine judicially any law on the statute-books, and when they undertake to set aside an express statute upon which no court has passed or made any decision, they assume a grave responsibility—one which, if acted upon, may vitiate the tax-roll of certain counties.

W. C. BLACKWOOD.

Haywards, May, 1889.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Butte Mt. Pomona, Masonic hall, Yuba City... June 29
 Sonoma Co. Pomona, Santa Rosa... July 17
 State Grange, Sacramento... Oct. 1

Oregon.

Present Valley Grange... June 7-8
 Dallas Grange Picnic, Luckiamute Falls... June 7-8
 Lane Co. Picnic, Stafford... June 15

Some Things in Our Grange Edition.

In our Grange Edition to-day the following matters of interest are mentioned at more or less length:

The Joint Picnic of Eden, Temescal and San Jose Granges. Judge Blackwood's Address. Oregon State Grange—Address of Welcome. Response, Welcome to Visiting Patrons from California, California's Response to Oregon's Welcome; Lower Willamette Valley Business Council, The Grange in Washington Territory. From Woodburn.

Oregon State Grange.

The 16th annual session of the Oregon State Grange convened in the Senate chamber of the State Capitol, with full delegations (64 in number) from the different counties of our jurisdiction present. Our State Master Hayes fulfilled his promise of opening promptly at 10 A. M. of Tuesday, May 28th, and at an early hour the hum of greetings began.

California was represented by a delegation of five, Bro. McConnel, wife and daughter and Brother and Sister A. T. Dewey. These visitors were the means of adding much to the enjoyment of the session, and if these are representatives of California's Grange, we hope for twice "forty" next year. Our members greatly enjoyed the presence of the amiable Matrons from our sister State.

The following delegates are present:

Benton County—Mrs. Mary J. Harras.
 Clackamas County—Dr. Joseph Castro, Mrs. Julia A. Castro, E. Skirving, Mrs. Eliza Skirving.
 Clarke County, Wash.—C. J. Moore, Mrs. Julia Moore.

Columbia Council, Wash.—James Nevins, Mrs. Eliza Nevins.
 Gilliam County—W. J. Edwards, Mrs. Jane Edwards.

Gilliam County Council—O. J. Kizer, Mrs. Maggie Kizer.

Lane County—Mr. and Mrs. T. A. Riggs, Mr. and Mrs. J. F. Kirk.

Lane County Pomona—Mr. and Mrs. J. A. Crow.

Linn County—Mr. and Mrs. J. H. Scott, N. P. Payne, Mrs. Rosina Payne, M. H. Wilds, Mrs. J. B. Wilds.

Linn County Council—F. M. Kizer, Mrs. Mary Kizer.

Marion County—J. P. Robertson, Mrs. H. Robertson, W. M. Hilleary, Mrs. I. L. Hilleary.

Marion County Pomona—Charles Miller, Mrs. N. Miller.

Umatilla County—J. A. Gross.

Umatilla County Pomona—Mr. and Mrs. Clark Waters.

Wasco County—John Meddler, John End, Mrs. B. End, Mr. and Mrs. A. M. Allen.

Wasco County Council—Geo. H. Riddle, Mrs. Riddle.

Yamhill County—Timothy Goodrich, Mrs. N. A. Hembree.

Morrow County—Mr. and Mrs. E. H. Andrews, J. A. Hughes.

Polk County—P. W. Halery, Mr. and Mrs. B. F. Smith.

Polk County Council—J. C. White, Mrs. M. M. White.

The standing committees of the State Grange, as appointed by Worthy Master H. E. Hayes, are as follows:

Credentials—W. M. Hilleary, Marion county; W. J. Edwards, Gilliam county; H. Robertson, Marion county.

Order of Business—F. M. Kizer, Linn county; J. A. Crow, Lane county; M. J. Harris, Benton county.

Co-operation—Benj. Schofield, Washington county; J. P. Robertson, Marion county; N. A. Hembree, Yamhill county.

Resolutions—Mrs. I. L. Hilleary, Marion county; Hon. Chas. Miller, Marion county; Dr. J. Castro, Clackamas county; W. A. Sample, Umatilla county.

Good of the Order—O. J. Kizer, Gilliam county; J. A. Scott, Linn county; Mrs. Mary Kizer, Linn county.

Finance—J. A. Gross, Umatilla county; John End, Wasco county; Mrs. P. Kelly, Multnomah county.

Appeals—T. A. Riggs, Lane county; A. M. Allen, Wasco county; Mrs. J. A. Crow, Lane county.

Agricultural College—Judge R. P. Boise, Marion county; John Meddler, Wasco county; Mrs. B. Schofield, Washington county.

Education—Mrs. A. L. Castro, Clackamas county; T. Goodrich, Yamhill county; I. F. Kirk, Lane county.

Agriculture—E. Skirving, Clackamas county; Plympton Kelly, Multnomah county; Mrs. Jane Edwards, Gilliam county.

Division of Labor—N. P. Payne, Linn county; Moore, State of Washington; J. F. Kirk, Lane county.

Legislation—N. P. Payne, Linn county; J. P. Robertson, Marion county; Mrs. M. H. Wilds, Linn county.

Transportation—Charles Miller, Marion county; F. M. Kizer, Linn county; Mrs. Rosina Payne, Linn county.

Memorial to the Memory of National Master—Judge R. P. Boise, Marion county; Wm. Cyrus, Linn county; A. R. Shipley, Clackamas county; Mrs. E. Skirving, Clackamas county.

Woman's Work—Mrs. N. A. Hembree, Yamhill

county; Mrs. J. White, Polk county; Mrs. B. Schofield, Washington county; Mrs. M. J. Harris, Benton county.

The Secretary's report shows 20 new Granges and five reorganized. The membership foots up 3094.

The afternoon session was an open one, and the large Senate chamber was filled. Worthy Master Hayes called the meeting to order and introduced Governor Penoyer, who gave an address of welcome, setting forth the condition of the agriculturists of the land. The picture drawn by His Excellency, while it portrayed many truths as to the husbandman's condition, certainly made it very strong when he depicted them as a class of nomads through the machinations of corporate power and greed. However, the Governor's welcome to the Grange was hearty and wholehearted and offered in well-chosen words.

Mrs. I. L. Hilleary responded, giving a rendition of the history and growth of the Order and its aims, objects and accomplishments. At the close of Mrs. Hilleary's remarks, Mrs. Strickler sang a beautiful solo.

Judge E. P. Boise, in behalf of Salem Grange, gave one of his most excellent addresses welcoming the State Grange. He ably presented the matter of the trusts and corporations. At the close of his interesting and valuable production the audience was favored with a most excellent vocal duet by Mrs. I. A. Manning and Miss Mabel Gray.

W. A. Sample of Umatilla county, a most worthy "sample" of our great and fertile "Inland empire," replied to Judge Boise in a happy and earnest manner, mapping out a course to pursue to relieve the husbandman from his present difficulties, being the simple fact of working together as a unit.

At the close of the remarks, Mrs. Strickler again favored the audience with a beautiful solo.

Mrs. S. L. Hayes then delivered a very pleasing address of welcome to the visitors from California.

Secretary Dewey of California responded in as beautiful and appropriate words as the bright, beautiful climate and productions of California, closing with a poem upon California and Oregon brotherhood.

Second Day.

The session this morning opened in secret with a full attendance of members and visiting members.

The Worthy Chaplain, the Assistant Steward and the Lady Assistant Stewardess made valuable reports, which were ordered printed in the proceedings of the session.

The Committee on Woman's Work in the Grange made a report on that subject, showing that a great amount of work had been performed.

The Committee on Resolutions brought in one upon the subject of assessment and taxation, which was discussed, and on motion made a special order for Thursday afternoon.

A resolution recommending the increase of power to the railroad commission so that exact justice could be accorded both railroads and the people was adopted.

A resolution of thanks was voted to Hon. J. H. Mitchell and Hon. Binger Hermann for efforts toward getting a change of the National Constitution, making the election of U. S. Senators by the people instead of by the Legislature.

A resolution recommending the Executive Committee to send the Lecturer or his deputy into Washington Territory to organize a sufficient number of Granges to enable the establishment of a State Grange was adopted.

For convenience in work it was decided to move from the Senate chamber to the Good Templar hall.

An invitation to visit the penitentiary was accepted.

A request from Eastern Oregon for an organizing deputy was referred to the Committee on Good of the Order.

A series of resolutions by J. P. Robertson went to the Committee on Resolutions.

Three proposed amendments to the National Grange Constitution were adopted and one was rejected.

The matter of the Australian system of voting and similar resolutions were made a special order for 7 o'clock.

The Grange voted to take a recess to-day from 12 to 3 P. M., and attend Decoration services.

Evening Session.

The special order of discussing the report of the Legislative Committee upon the resolutions asking the support of the State Grange for the Australian system of voting was taken up.

A. T. Dewey of California read an exhaustive and highly entertaining paper upon this system. Judge R. P. Boise followed with remarks in its favor.

Hon. O. G. Fisher of Polk county also favored its adoption, and stated that it was favorably considered in the last session of the Legislature.

Mr. McConnel of California spoke upon the subject, thought the Australian system a little clumsy, but that it could be modified so as to be acceptable.

Hon. John Minto thought that the system would be an improvement and a step in the right direction.

The report was adopted.

Mrs. S. L. Dawson read her annual report, giving good suggestions; Miss Nellie Boise rendered an effective recitation; Mrs. Hannah Walters read a practical and well-written es-

say; Mr. John A. Gross of Umatilla county gave a report from his part of the jurisdiction.

Third Day.

Resolutions favoring Government aid in opening the Columbia river were favorably received.

Resolutions relative to a change in the law in regard to exemptions of property, regarding the election of U. S. Senators, and salary of the Lecturer were referred to Committee on Appropriations.

The Committee on Co-operation recommended closer co-operation in business and better study of the situation.

The Grange refused to amend the by-laws removing the meetings of the State Grange from Salem.

The Transportation Committee reported favorably upon the Columbia river improvement proposition, which report was approved.

Thursday P. M. Session.

At the re-assembling of the Grange, a memorial exercise was held in memory of the late Put Darden, the deceased Master of the National Grange. Judge Boise delivered a fine tribute to the memory of the deceased.

Professors Grimm and Lake of the Agricultural College addressed the Grange.

Resolutions on the death of Past Chaplain Shumway were read and adopted.

The Executive Committee were authorized to extend lecture work in Eastern Oregon.

The Committee on Resolutions thanked Mr. and Mrs. Hilleary and the Press for the efficient advocacy of Grange work; Salem Grange for its kindly reception of the State Grange; the officers for their efficient services; and the Secretary for carefully conducted business.

The subject of assessment and taxation was presented to the Committee on Legislation, and was referred to the subordinate Granges for discussion. The evening session opened with the re-election of J. P. Powell for member of the Executive Committee for two years.

Mrs. Cook, Worthy Flora, read an interesting essay, as did also Mrs. E. S. Sample. F. M. Nighwander gave a fine literary production.

J. A. Gross offered resolutions in regard to reports from different sections, and also on the representation to the Grange, which were adopted.

Fourth Day.

The special order of consideration of the report of the Committee on Agricultural College, recommended a change in the law so that a majority of the regents must be practical farmers, and that the curriculum of studies shall be only practical studies which will specially aid the work of agriculture and practical mechanics.

Prof. Grimm was called out and explained the workings of the college.

Mrs. Casto offered a resolution asking that one or more women be appointed upon the Board of Regents of the Agricultural College, which was adopted.

The afternoon session passed a resolution asking that the Agricultural College Experiment Station organize experiment stations in both Eastern and Southern Oregon.

The degree of Flora was conferred Friday evening. Quite a number of the delegates left for their homes Friday morning.

Sister Hembree, State Chairman Women's Work, was taken quite ill on Thursday evening and has not been able to appear among us since. She has the fraternal sympathy of the Order.

Lucerne Grange.

MESSRS. EDITORS:—I am happy to say Lucerne Grange is holding her own. At our last meeting we gave the third and fourth degrees to a new member—a brother—after which we enjoyed a Harvest Feast. We concluded to meet only once a month during harvest, as the nights are so short, but as soon as harvest is over we shall meet once a week as formerly. Lucerne Grange will meet during harvest on the first Tuesday in each month at 8 o'clock P. M.

I am sorry to say our Worthy Master, S. Walker, met with quite a loss about three weeks ago. He had built him a new house costing \$5000. It was all completed with the exception of about two days' work by the painters, when it took fire from some cause unknown and was burned to the ground in 15 minutes. I believe the house was insured for \$2000. Brother and Sister Walker have the sympathy of all the members of Lucerne Grange in their loss. Yours fraternally,

Armona, May 27, 1889. WM. OGDEN.

Sebastopol Grange.

MESSRS. EDITORS:—I wish to report Sebastopol Grange as having quite a boom. We have just fitted up a new hall and feel well pleased with our new home. Our Grange is steadily growing in interest and numbers. We expect to confer the first and second degrees on a class of three at our meeting on the 15th, at 2 P. M. On next Saturday evening we have an officers' drill meeting, at which time we hope to have our new combined rituals. On Thursday evening, the 13th inst., we have a strawberry and ice cream social, to which all are invited. Yours fraternally,

M. LITCHFIELD, W. M.

The National Grange Session.

MESSRS. EDITORS:—As it seems to be about settled that the next session of the National Grange will be held in this State, one of the most important questions for all California Patrons to settle soon is what plans can be adopted that will make it the grandest success possible, not only in the way of making it pleasant for visiting Patrons, but of the greatest possible benefit to the farmers of this State.

I believe one of the best ways to make an impression on the parasites of the State, who consider the farmer their legitimate prey, and convince them that we are awakening to our interest and purpose to stand together in the future in self-defense, would be to have an immense meeting at the National Grange, as well as the State, for there is nothing that makes corrupt politicians and law-makers tremble like thorough and determined organization; and it has been the lack of this among the farmers that causes them to be so imposed on by all classes and to have so little influence in the halls of legislation. And now is the golden opportunity to convince the farmers of this State as to what the Grange is and what we mean to do, and convince the press and politicians that we mean to make them respect our rights more in the future than they ever have in the past.

Then the question arises, what will be the best way to secure the largest number of Patrons at the National Grange session? Now, my plan would be (and I know it to be the idea of many others here) to hold the State Grange session one week, or at most ten days, before the National Grange, thus making it possible for Patrons at a distance to arrange their business so as to attend both sessions with the expense of but one railroad fare at least, and most of them would be able to go that otherwise will not be able to do so where the sessions are some five or six weeks apart. I believe that there would at least two go from this part of the State if they could take in both sessions at one trip, where there would only one go otherwise for the reason they don't feel able to stand the expense of two trips or remaining from home long enough to attend both.

I have no doubt that the first solid objection to this plan will be that the constitution fixes the time of meeting, etc., and it seems that it could be the only reasonable one urged. But as a remedy for this objection, could not the officers of the State Grange meet at the constitutional day and hour, and after the opening preliminaries adjourn to meet at a fixed date about a week previous to the meeting of the National Grange? I believe in this way we would have two grand sessions that would exert a great influence for good throughout the State for the benefit of the farmers in general and the Order in particular. And no doubt many friends from Oregon and other States would come in time to attend both sessions, and important measures could be discussed in the State Grange (if time permitted) that would be brought before the National which would give them many more chances of success in that body.

Space will not permit telling of the many advantages such an arrangement would have now, but I hope that the matter will be fully discussed in every Grange and through the Press soon, and let us see if such a thing is possible or agreeable to a majority of the members in the State. Fraternally,

Tulare, May 27, 1889. J. M. MOORE.

Barbed-Wire Fence.

The Supreme Court has just rendered a decision in the case of Loveland vs. Gardner, in which the question to be settled was one of damages to the owner of some horses which came in contact with a barbed-wire fence, injuring some and killing others. The decision says that there was evidence to show that the wires were not properly stretched, but were left hanging between the posts, which were 36 feet apart, in such a way that the stock could not see them. The case is similar to that of Seek vs. Crump, 112 Indiana, 504, where it was held that a barb-wire fence, the strands of which were negligently suffered to sag down and hang loosely from the posts, was not such that a good husbandman would construct or maintain, and that the defendant was liable for injuries occasioned to plaintiff's horse while attempting to pass from the street to defendant's field.

The court in the case at bar instructed the jury that the plaintiff could recover only one-half of the damage sustained by the horses owned by them and Knight jointly. The verdict and judgment were for the plaintiff, while the evidence showed that the damage suffered amounted to \$300. The case was remanded, with directions to the court below to enter an order requiring plaintiff within a certain time, to be fixed by the court, to file with the clerk a waiver of a greater sum than \$300. Unless such waiver is filed a new trial will be granted.

It was only a few days ago that Gov. Stanford ordered all the barb wire removed from fences on the Vina ranch.—Red Bluff Sentinel.

MERCED GRANGE added one new member to its roll on the 1st inst.

Bro. Flint in Michigan.

The following letter from Bro. Daniel Flint, Worthy Lecturer, dated Lansing, Michigan, May 16th, has lost none of its interest to our readers by being delayed on the route:

MESSRS. EDITORS:—The Legislature is in session and has been for several months, and the people begin to find a good deal of fault on account of the way their taxes go. It appears they apply themselves so closely to State affairs that the common statesman must have rest and recreation, and they cannot keep up a continuous session, so they take a recess and deliberate on State affairs with their constituents.

We with Miss Flora Buck called on Governor Luce, Past Master of State Grange. We had to wait a few minutes for an audience, he was so much in demand by the callers. He laid his ponderous State papers one side and gave us a pleasant reception. The Governor is spoken of in the highest terms, and as he is in his second term, I think he gives good satisfaction. The Governor, his wife, and daughter, called on us at Mr. D. W. Buck's house in the evening, where we spent an hour or two very pleasantly.

I find the Governor has lost none of his good talking qualities since we met him in the National Grange. Mrs. Luce holds an office in the National Grange, and he assured me that if it meets in California he and his wife would be sure to be with us.

We visited both bodies of the House and took a good look at the lawmakers of Michigan. In the Senate they were trying to smother a bill that had passed in the Assembly—to allow women to vote at municipal elections. A delegation of ladies were present, and the Senators were apparently afraid to face their smiling and determined faces and were playing for time. The Governor told the members to pass the bill and he would sign it the moment it was presented to him.

I saw that there were some very sensitive members in the Assembly, for they had up a bill to regulate the railroads of the State, and the point of discussion was a motion to strike out three cents a mile and insert two. The prominent speakers were friends of the road, and one said they should not be unjust to the roads because they held the power. One said only one road in the State was paying dividends, and that was the Michigan Central.

Lansing has one of the finest capitol in the United States, and the people of Michigan may well be proud of it. The grounds are large, sloping and grassy. We rode through the large, finely arranged grounds of the Agricultural college. They have made extensive improvements since I was here a few years ago. The surroundings look thrifty and healthy. It is the best conducted and arranged, and I might add, nearly the only really agricultural college in the United States. The students that I saw in the grounds did not look as though they had just come out of a band-box, but looked like good types of farmers' sons, there for a purpose.

We passed through the grounds of the boys' reformatory school, and where a few years ago there was a high board fence to keep the boys from running away, was no fence at all. Extensive improvements could be seen here, and it was a pleasure for me to see how much Michigan was doing for her young men and women, for girls are educated at the Agricultural college as well as the boys.

It is wonderful to see how all the places on the line of the Western roads are being built up. Unless a Californian comes East frequently he is liable to take too much stock in conceit. He will find them alive here with an eye to business. Many of them scarcely seem to know there is such a place as California.

"Voting Together."

MESSRS. EDITORS:—I wish to extend thanks to Bro. S. C. Carr, Master Wisconsin State Grange, for the explanation as to what he meant in his speech at Stockton, Cal., Feb. 6th, when he said: "We must vote together." I have carefully read his communication, and while I approve of every sentiment contained, I must confess that I am unable to see any "vote together" business in it.

I formerly lived in California, and have resided in Washington Territory for two years past. All my California friends well know that I was earnest and enthusiastic in my efforts to favor the forming a new party for the purpose of making it possible for farmers to vote together. In the year 1886, by the support of Rural Press and California Patron, we managed to get a conference meeting of the farmers at Sacramento. There was considerable enthusiasm on the part of many good Grange workers, those who had for years, through the influence of the Grange, laid aside their old partisan harness, and felt just as though they wanted a place to vote, realizing as they did, that it was, as you express it, "an insane idea to talk 364 days against monopolies and the 365th day vote for them," but none of the Grange leaders whom I had the honor of meeting, favored a movement of that kind. Finally, late in the season, when there was no earthly chance for anything like success, another effort was made and a ticket put in the field, but not supported by prominent and representative members of the Grange.

The above facts constitute the circumstances

which led me to make my inquiries as to what Brother Carr meant by "voting together." I had hoped that I had found one Master of a State Grange who favored the formation of a new party, for one can readily suppose that when you say "we must vote together," and then qualify it by saying "I meant just what I said," that you were in favor of making a place to vote together, or else you had a place you could recommend. But it seems that you have nothing even to recommend, but, at some future time, providing the political parties do not act to suit, you "shall advocate forming a new party."

What is the matter with advocating the new party at once? All the present generation of farmers and Grangers will long have passed away before those four farmers in Congress will be able to outvote the 397 monopoly advocates. Come, Bro. Carr, let us hoist our flag now. The importance of our purpose is sufficient to enable us to clasp hands even from Washington Territory to Wisconsin. Let us put the flag high up the pole and set the ball rolling, and may it continue to roll through every hamlet in this fair land until it completely crushes the insane idea of neutralizing all our power, all our strength, and all our glory which the beneficent institutions of our country clothe us with by going like sheep to be always slaughtered in the old parties.

We are shouting "vote together," while we are trailing behind us in the dust every particle of power we possess. It looks very much as though insanity itself had gone crazy. One word more and I am done. It does seem to me that the glaring importance of this question is sufficient to place it before the members of every Grange within the jurisdiction. Let the question, do the interests of the farmer demand the formation of a new national party? be discussed candidly, and I guarantee a new party will be the result.

As the law forbids the discussion of party and party measures in the Grange, it was the habit of many Granges in California to declare a recess for an hour or more, and during the recess elect Chairman, and together with all former party feelings cast aside, and without prejudice, discuss that which is really the most important question to the farmer of the day.

Therefore I insist that voting together means a new party, and on my banner is inscribed the words of Bro. Carr: "We must vote together." Seattle, May 20th. L. B. ANWAY.

A Model Oregon Grange.

The leading newspaper of the Northwest has this to say of Hillsboro Grange, Oregon:

The Grange at Hillsboro has 150 members, and is rapidly growing and every way prosperous. It meets twice a month at its own hall in Hillsboro, which is in the upper story of a brick block in the best business portion of the town. The Grange owns the whole block and has an income from the rents. A Grange store occupies the lower floor and did a large and prosperous trade during 1888. The business proved so successful that it paid its stockholders an annual dividend of 12 per cent, and also 5 per cent was repaid members on their purchases of goods during the year.

A fine bank building is also in process of erection, intended to be occupied by a national bank, the stock of which is all subscribed inside the Grange. Hon. W. D. Hare is one of the leading spirits, and he remarked: "This Grange believes in itself; we don't go around complaining about railroads and denouncing banks and merchants. We have our own store, and after two years' experience it is a decided success. We own this brick block and have our hall in the upper part, where we meet twice a month and have interesting and valuable discussions and a good time generally, never failing to have a good feast. Our ladies wished to give the Farmers' Institute a good dinner, but we were afraid they would think we were too forward in so doing."

"Our Grange has other enterprises in view. Washington county farmers are the kind that make money by farming, and they have means. It is talked of that we are to have a good flouring-mill of our own soon, and such a mill would help the town. We also intend to build a cannery and make the most of our fruit and our vegetables. This Grange is entirely harmonious and is progressive. It does not believe in growling, but in working. We propose to control trade in our own interest."

Hillsboro and vicinity have a Grange that probably cannot be excelled in the State. Its numbers are increasing, and they hope to have it represent the entire farming community of that vicinity. It makes a study of farmers' interests and discusses live topics of farm life. In many respects it sets a good example to other counties and communities, and especially to those who spend their time showing how farmers are imposed on and ground into the dust by "greedy monopolies." They don't tolerate any monopoly, are not imposed upon, and are not the kind of farmers who make a failure of their profession. They thrive and succeed.

The State Grange of Illinois has offered \$10,000 to be paid to any one who will invent a machine that will bind wheat and oats with straw. This forward step has been brought about by the twine trust. Who will say the Grange of Illinois is not awake and ready to act for the best interest of the farmers?

The Grangers' Picnic at Alvarado.

MESSRS. EDITORS:—It seems to me that the readers of the Rural Press can scarcely imagine what an enjoyable event the Grangers' picnic of the 25th of May at Alvarado was, from the brief sketch copied into last week's issue. Those who started from San Francisco feared a cloudy day, since gloomy banks of nimbus hung over the Golden Gate, but by the time these vapors had floated up to Alvarado, they had brightened into the pearly cumulus of spring, tempering the warm sunshine and fragrant zephyrs into balmy coolness.

The grove at Alvarado is one of the most delightful for picnicking. Tall, slender trees with a foliage as tender as maple shut out the glow of noon with the dappled sea-green shadows of dancing leaves and waving boughs. Wild flowers looked out with bright faces from every nook; while a miniature meadow of new-mown hay filled the air with its own delicious fragrance and invited the rosy, gleeful children to a rare haymaking. Picturesque groups, forming and dissolving beneath the woodland arches, caught the eye on every hand, and visions of youthful bloom and beauty floated about in airy lawns, tinted like roses and forget-me-nots.

Shortly after the San Jose train arrived, music by the boys' band of the Reed Street School of San Jose, attracted hundreds to the speaker's stand, when President Dewey announced the officers of the day and the order of exercises. An invocation was offered by Rev. S. Goodenough of Oakland. Mr. Dewey then congratulated the Grange upon the progress it is making, and after many interesting remarks, introduced F. B. Granger, Sr., who welcomed the visitors. Then Joaquin Miller was presented by Mr. Dewey, and delivered one of his most beautiful poems, "The Fortunate Isles."

"The old Greek isles where the yellow birds sing,
And life lies girt in a golden ring."

Major E. A. Sherman delivered an oration, and at the conclusion of his address the president announced that Gov. Waterman, who had been expected, would not be present because he had been called to San Bernardino.

An intermission was then taken, during which lunch was served on long tables arranged in cool, leafy aisles of the grove, through which the murmur of many voices echoed. Cherries and strawberries from San Jose, still bright with dew, vied with the golden tinge of oranges to give tempting color to the feasts of good things upon the snowy spreads; but most grateful of all to many a thirsty palate was the Grange coffee, so unlike the usual picnic coffee. This surely deserves generous praise, since the fragrant steaming cups, dashed with cream, were deliciousness itself.

After lunch the speaker's stand proved more alluring than sportive games, or even the pavilion, although the latter was soon animated by many a whirling pair who could not resist the invitation of the sweet dance music. Along with more serious sentiments, wit and humor was indulged in by the speakers and responded to by perfect volleys of laughter at every pause. Speeches were made by Judge W. C. Blackwood, W. T. Gibbs, C. J. Cressey, Judge E. M. Gibson and Mrs. L. J. Watkins. Joaquin Miller was persuaded to recite a second poem, and this was generously spiced with humor. He delivered it in an original fashion, consequently "William Brown of Oregon" was doubly interesting.

There were many charming and talented ladies present who brightened the conversation with their sparkling repartee. Among them may be mentioned Mrs. Miller, Joaquin Miller's mother, Mrs. A. T. Dewey and her fair daughter, and May Blossom Davis, whose name is familiar to the readers of the Rural Press.

A couple of artists with a camera obtained a good picture of the general assembly, while several small parties were subsequently delighted with their success in picturing the happy Grangers in artistic groups upon the tiny meadow, with its delightful background of trees.

Some remembered a sweet presence who had brightened one of our Grange picnics not so long ago—one whose pen had frequently contributed to the "Home Circle" of the Rural—Fannie H. Avery, whose untimely death was remembered with regret.

Oh, we still miss her tender lines,
Those soft notes echoing still—
The song bird flitting from the shrines
Upon the muses' hill.

In spite of the pensive thoughts of absent ones, the hours spent under these benign influences soothe the heart and leave a balm which returns unbidden again and again until memory itself brightens with a prismatic glory.

With the lengthening of the trembling shadows and softening sunbeams came the puffing train, recalling us to our homes, and as we hurried to meet it, many a farewell glance lingered upon the sylvan spot where life had found one of its happiest days.

MARGUERITE DAVIS BURTON.

BRO. B. F. FRISBIE of Yuba City and Sister Edith S. Shriver of Merced were married in the hall of Merced Grange on the 1st inst. Mrs. Frisbie is a daughter of Mrs. Ella S. Elliott, Secretary of Merced Grange. We wish Bro. and Sister Frisbie the utmost happiness through life.

Bennett Valley Grange.

MESSRS. EDITORS:—The regular meeting of Bennett Valley Grange to-day was well attended. A class of 14 candidates was initiated in the mysteries of the first and second degrees. Several visiting members were present, and the meeting was made very interesting.

At our next regular meeting, Saturday, June 15th, the third and fourth degrees will be conferred, and we will have a Harvest Feast, to which all Patrons in good standing are invited.

RHODA WHITAKER, S. C.

Bennett Valley, June 1st.

A Portrait of Bro Chandler.

To the Brothers and Sisters of South Sutter Grange:—In behalf of Sister A. L. Chandler, Bro. R. S. Alges presented to South Sutter Grange, May 25, 1889, the life-sized portrait of Bro. A. L. Chandler, deceased. A motion was made that we accept the picture, and that we extend our heartfelt thanks to Sister Chandler for her benevolence. By order of the Grange.

PACIFIC HALL, S. C.

Pleasant Grove, May 30th.

The Committee on Arid Lands.

The State Board of Trade Committee on Irrigation of Arid Lands held a meeting in this city on Tuesday. There were present M. M. Estee, W. H. Mills, W. M. Merry of this city; E. W. Jones, Los Angeles; N. P. Chapman, Tehama; C. S. Wright, Stanislaus; L. M. Holt, Riverside; F. H. Cunningham, Oceanside, and Jesse D. Carr, Monterey. Capt. Merry having resigned, Senator Thompson of Nevada was elected to fill the vacancy.

Chairman Estee read a letter from Col. R. J. Hinton, stating that the Senate Committee will leave Washington for this coast Aug. 18th.

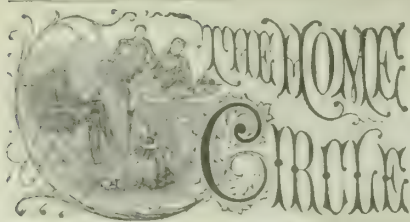
Speeches were made by Messrs. Mills, Estee, Wright and Carr with regard to gathering data and making other preparations for the expected visitors, and the committee decided to meet alternate Mondays.

IRRIGATION DISTRICTS ARE PUBLIC CORPORATIONS.—The Supreme Court has filed an opinion in the case of the Central Irrigation district vs. De Lappe et al. from Colusa county. This was an application for mandamus to compel the secretary of an irrigation district to sign and seal certain bonds. One of the property-owners of the district was allowed to intervene for the purpose of contesting the validity of the bonds. The court below awarded the mandamus and the defendant and intervenor appealed. The Supreme Court says: "The district was organized under the Act known as the Wright law. This Act was held to be constitutional in Turlock Irrigation District vs. Williams (38 Pac. Rep. 379). In that case irrigation districts were likened to districts organized for the reclamation of swamp lands, and the court said it was inclined to think that they were to be regarded as public corporations. We think that the analogy between the two kinds of corporations is strong. The purpose of the one is to make large bodies of land fit for cultivation by removing the excess of water, and that of the other is to make large bodies of land fit for cultivation by distributing water over them. Their general powers are similar in many respects, and they are organized upon the same plan. It is settled that reclamation districts are public corporations * * and we think that irrigation districts must be held to be so—to the same extent." The secretary, De Lappe, was ordered by the lower court to sign the bonds, and the Supreme Court, in an opinion by Commissioner Hayne, affirms that order.

SETTLERS AND THE S. P. R. R.—In regard to the report last week that some 1700 settlers are alarmed lest the S. P. Co., or more correctly the S. P. R. R. Co., should drive them from their homes, the Chronicle gives the following: In answer to inquiries at the land department of the company, William H. Mills said that there is little cause for alarm. Judge Ross' decision against the company probably settles the question of its claim to the land referred to by the startled settlers, which is the 40 miles square at the intersection of the grant to the A. & P. with the subsequent one to the S. P. R. R. Co. The only land that is likely to be involved is that known as the indemnity lands, the two strips each ten miles wide outside the forfeited 40-mile grant to the A. & P. The land already settled is not likely to be affected.

AGRICULTURAL DIRECTORS.—The Governor has appointed the following directors for Agricultural District No. 22, San Diego county: J. A. Stice, O. C. Watson, Chester Gunn, Charles McDougall, John Judson, W. H. H. Dinwiddie, Jacob Gruendike and W. W. Stewart. R. Bostwick was appointed a director of District No. 27, Shasta county, vice J. Culverhouse, resigned.

POMONA GRANGE, through J. D. Huffman, Secretary, and Ezra Fiske, Treasurer, wants \$500 from the "Advertising fund" of the county to make San Joaquin county exhibits at the State and district fairs. The petition is on the Supervisors' file and will be taken up in a day or two.—Stockton Independent, June 4th.



The Gardens of Hope.

[Original—By L. S. H.]

Rise up, O my spirit!
Rise up and be strong!
Unloosen thy fetters
And make thee a song
Exultant and strong
As if caught from some Heaven remote.
Love is long,
Lift thy song,
For the gates are ajar
Where the sun bowers are,
In the beautiful Gardens of Hope.

Look up, O my spirit!
Look up—all is fair;
The clouds are aglow
In the clear crimson air.
Doubt and despair
Have fled to some cloudland remote.
Long and low,
Sweeps my pathway aglow.
See the stars all afire
With my love, my desire.
In the radiant Gardens of Hope.

Be alive, O my soul!
Hear the music divine,
Hear the life-giving strain
That is thine.
'Tis the unction and wine
Sent down from some Heaven remote.
There is balm for thy pain,
And lifted again
Is the right arm of power.
Brave is thine hour
In the enchanted Gardens of Hope.

Make a crown, O my soul!
For thy light,
With a glory and sheen
For thine own inward sight,
And fair as one seen
Through the gates of some Heaven remote,
Shine forth in the night.
All is well, all is right,
All things are thine own
On the glorified throne
In the wonderful Gardens of Hope.

A Few New England Women.

[Original—By FLORA M. KIMBALL.]

Wherever we meet New Englanders, we find a people doubly proud. Proud of their birthplace, and proud that the same gigantic hills and mountains that in youth towered above them, cast their shadows also over the homes of the intellectual giants that have made their little corner of the Union so justly renowned.

We dwell with satisfaction upon our heroes, statesmen, literary men, theologians and scientists. We talk long and lovingly of our honored Adams, Webster, Morse, Cass, Mann, Everett, Channing, Edwards, Whittier and Longfellow, and a host of others who have left their impress on our nation's history; and it is indeed a brilliant galaxy of minds that has illumined one of the roughest, wildest spots on earth.

We do these dead and living men no injustice when we assume that every great man in New England who has performed deeds of daring or mercy, delved in science or reveled in literature, has his peer among the women of New England, whose historic names are forgotten on national holidays and Centennial laudations of heroes.

Let us draw aside the curtain that hides from view

Our Uncrowned Queens.

That we may catch a glimpse of a few of those whose birthplace was New England, but who have made the whole nation glorious.

The dark days of the Revolution were brightened by the unfaltering courage and cheering words of

Mercy Otis Warren.

Whose Barnstable home was the resort of patriots, and by her fireside, and through her counsel, political plans were made that led to the country's independence.

It was she who based the struggle of the Revolution upon "inherent rights," a sentiment afterward made the corner-stone of political authority. Jefferson sought her counsel, and the Declaration of Independence, if not altogether her work, bears unmistakable impress of her clear, independent mind. John and Samuel Adams, Dickinson, Gerry and Knox were wont to consult her before making any important political move. Mrs. Warren was the very first person who counseled separation from England, and she urged her views upon John Adams, who

asked her advice before opening the first Congress.

Abigail Smith Adams

Of Weymouth, wife of John Adams, was one of the stirring spirits in the political events of her time. Her husband gracefully acknowledged her his superior, and to her wise counsel and clear-sightedness he ascribes the success he attained in national affairs.

Deeds of daring, as well as fireside counsel, distinguish New England's daughters of "ye olden time." The tragic feat of

Hannah Dustin

Almost one hundred and ninety years ago, has never been excelled in bravery, and today Haverhill, Mass., is distinguished as having been the home of one of the most courageous souls in our nation's history, and the statue of granite on that lonely island in the Contoocook which marks her heroic exploit, will crumble to dust before the heroism of that loving wife and mother will cease to be remembered as a part of our early history.

But a more unselfish courage than that arising from a desire to save the mortal lives of those we love, actuated those two self-sacrificing daughters of New England,

Ann Haseltine Judson and Harriet Newell.

In our day of luxurious ease we can scarcely comprehend the strength of will and moral purpose that actuated these two first women ever sent as missionaries to foreign countries by the American Board. They bade, as they thought, a final adieu to homes of ease and comfort for the privations and trials of the country of the then unknown Burman. A journey of eighteen months, attended with perils, imprisonments and trials a thousand times worse than death, these uncomplaining, heroic girls bravely endured for the sake of those they had never seen, but whose souls were to them a sacred trust. Mrs. Judson was the first American who mastered the language of that barbarous people. The laurels fairly earned by

Lydia Maria Child.

Whose birthplace was Medford, Mass., have unjustly decked the brows of masculine celebrities. The famous speech accredited to James Otis was the product of the brain and pen of Mrs. Child. The patriotism of the men and boys of that day was fired by the eloquence of this distinguished lady, under the false impression that the famous "incendiary of New England" was the author of their favorite, stirring speech. The deception was equally complete when her own sermon passed current as the effort of the great preacher Whitefield.

One of the first and largest anti-slavery books ever written was the work of Mrs. Child. In it she advocated the immediate emancipation of the negro slave. What suffering and bloodshed might have been avoided had her advice been heeded!

"Uncle Tom's Cabin," following in the wake of Mrs. Child's strong and well-expressed anti-slavery notions, weakened the bondman's chains, so that at the last they were easily broken.

Mrs. Harriet Beecher Stowe.

A brave New England woman, did her country as royal service as any general who led his armies to battle. No novel ever written has had so large a circulation as "Uncle Tom's Cabin," and probably no one has ever exerted such a wide moral influence. In the little town of Newport, N. H.,

Sarah Josepha Hale

First saw the light nearly seventy-five years ago. Few women wrote books in her girlhood time, but the bright, energetic

Sarah Buell

Devoted herself to authorship from childhood on. Her books are numerous, and the most voluminous historical work of the kind ever published, "Sketches of all Distinguished Women from the Creation to 1854," was perhaps the masterpiece. Although born before the close of the last century, when the doors of the professions were barred against women, she pursued successfully for several years the study of law with her husband, David Hale, a lawyer of eminence. When the name of

Julia Smith

Of Glastonbury, Conn., meets our eye, we are apt to think merely of a resolute little woman who defied unjust laws and every year paid the penalty of her convictions by the sale of her pet cows. But instead of a woman given over to butter-making and housekeeping exclusively, she has been through life one of the most diligent students. More than half a century has elapsed since she performed the literary feat, never attempted by man, the translation of the Bible from the Hebrew and Greek, five times, unaided.

As inventors, the women of New England have done their country good service. To a Massachusetts lady and her daughter belong the invention and perfection of the deep-sea telescope, by which vessels can be ex-

amined without elevating them into drydocks, wrecks inspected, lost treasures found, and obstructions to navigation discovered.

Mrs. Mary Parsons

Of Gloucester gave the name schooner to the first of that certain style of vessel, for which it was named in her honor the "Lovely Polly." As time passed, the Lovely was dropped, and finally when schooners were no longer a novelty, it was known as "Old Moll," keeping pace, as Mrs. Parsons used to say, with her own advancing years.

The fact is apt to be overlooked by educators who reap the advantages of a Normal-school training, that they are indebted to

Emma Willard

Of Berlin, Conn., for the Normal system as well as female seminaries. A long list of Willard's schoolbooks and scientific works were a part of the life-work of one of our most industrious countrywomen.

It was a high compliment, and a well-deserved one, paid

Margaret Fuller

Of Cambridgeport, by Horace Greeley, who said of her: "Mentally, she is the best instructed woman in America." She was the high priestess of transcendentalism. She was given precedence over our immortal Emerson and Ripley on editorial work on the *Dial*. She was also literary critic and the first woman on the editorial staff of the *New York Tribune*.

Prof. Maria Mitchell

Of Nantucket is recognized as one of the leading astronomers of the day. At the age of eleven she was both student and teacher, and now, at the advanced age of seventy-one, is the presiding genius of the Vassar Observatory, a position she has dignified nearly a quarter of a century. When in the flush of girlhood, she received substantial recognition from the King of Denmark, a gold medal for the discovery of a comet, and won golden opinions from eminent scientists all over the world. She was the revered fellow-worker of Agassiz, Sir John Herschell and Mary Somerville.

Harriet Hosmer

Of Watertown, Mass., stands at the head of American sculptors, bearing off prizes for best work in Rome among many male competitors. Her services are sought by the crowned heads of Europe, for whom she has filled many orders.

Worcester is justly proud of having been the birthplace of

Dorothea L. Dix.

The great American philanthropist. Through her untiring efforts, lunatic asylums were founded in Rhode Island, New York, Indiana, Illinois, Louisiana and North Carolina. For three years she besieged Congress to grant a donation of ten million acres of land for the relief of the indigent insane. When success seemed certain, and the bill had passed both houses, it was vetoed by the President on the ground of its unconstitutionality.

More like romance than reality is the life of

Josephine Sophie White Griffing.

A native of Hebron, Conn. Actuated by spirit loyal to justice, in the days when abolitionism was most unpopular, she worked untiringly in public and private and suffered as martyrs only can for the cause she espoused. In 1861 she went to Washington and presented to President Lincoln and Sec'y Stanton her plan for providing for destitute blacks. They acquiesced in her proposition for Government aid. With the help of her two young daughters, she fed one thousand daily; visited alleys, attics and hovels. She originated the Freedmen's Bureau, submitted it to Sumner, Wade and Wilson, who approved the measure, and two hundred thousand dollars was intrusted to her hands, every dollar of which was wisely and economically distributed among the needy blacks.

Royal Clara Barton

No queen ever wore a crown more deservedly than this noble queen of hearts wears the crown of affection, a loving tribute of every soldier, North and South, who was blessed with a sight of her saintly face. Oxford, Mass., was her birthplace, and there, at the age of sixteen, she began her brilliant career as an educator. She established the public-school system in New Jersey. Without solicitation she was appointed to the first clerkship ever held by a woman under Government—Hon. Charles Mason, Commissioner of Patents, giving, among other good reasons for his appointment, that men could not keep the secrets of the office, but sold them for money. She vacated her clerkship for the battlefield, and for four years endured the exposure and rigors of soldier life on the hardest fought fields. Being under fire in the severest battles, her clothing was often torn by shot, to which she gave less heed than to the sufferings of

the wounded soldiers around her. With a Spartan firmness that astonished the bravest, she worked for humanity alone, regardless of the color that enrobed the dying.

Neither did her service to her country end when the smoke of battle cleared away and peace was restored. She conducted an expedition sent by the United States Government to identify and mark the graves of those who fell on the field of battle. The graves of thirteen thousand soldiers who fell at Andersonville were thus identified. Her report of the expedition was issued in 1866.

She also devised and laid before President Lincoln a plan for searching for missing men. It received his sanction, but she was obliged to conduct the work at her own expense, employing and paying fifteen clerks. When her private means were exhausted, Congress appropriated fifteen thousand dollars to continue the work.

Nor did Miss Barton's labor of love and mercy end with our Civil War. Aided by experience dearly earned in her own country, she rendered similar service in the Franco-Prussian War. She extended succor to the poor of every besieged city of France. Honors were heaped upon her. She was decorated with the Gold Cross of Remembrance by the Grand Duke and Duchess of Baden, and with the Iron Cross of Merit by the Emperor and Empress of Germany. At New Haven, Miss Barton was tendered by the Admiral Foote Post a reception of precisely the same kind they gave to Gen. Grant and President Hayes on the occasion of their visits to that city. Our beloved

Mary Livermore.

After more than thirty years of public work in hospitals, on the field of battle, on the rostrum and in the pulpit, is as vigorous and active as ever, and the achievements of her future cannot be foretold. She is well known on both continents, and is as patriotic and earnest in her work as any statesman in New England.

Elizabeth Peabody and Julia Ward Howe. Learned, philanthropic and renowned; their lives should be written in letters of gold, and their memory will be embalmed in the hearts of an appreciative and grateful people.

Lucy Stone.

And her "mother's own daughter," Alice Blackwell, are revolutionizing the world of politics as no living man has done or can do. They are an honor to womanhood, their country, journalism, and their home city, Boston.

Other Eminent New England Daughters

The roll of names of New England's eminent and worthy daughters unfolds to my mind, and many, very many famous women must remain unnamed in this already lengthy article.

This great army of women have through perils and persecution inscribed their names on the scroll of fame; they have stood steadfastly by our country in its hours of peril; with timely counsel and heroic deeds they have purchased liberty and prosperity; home's sweetest blessings are their boon; the rough byways of science and literature have been cleared of thorns and rubbish by their brain and muscle; the old political parties are tottering beneath their womanly methods and the light of that day's dawn is breaking when such women will stand side by side in the popular mind with men of equally good works.

Culinary Maxims.

EVERY bee's honey is sweet.

THE house showeth the owner.

HE that is at ease seeks dainties.

ANGER at a feast betrays the boor.

IN a good house all is quickly ready.

AS the year is so must your pot seethe.

EVERYTHING is of use to a housekeeper.

BETTER be meals many than one too merry.

MANY a good dish is spoiled by an ill sauce.

THE biggest calf makes not the sweetest veal.

NEVER haggle about the basket if you get the fruit.

HE that saveth his dinner will have the more supper.

THERE is winter enough for the snipe and woodcock too.

SQUEEZE not the orange too hard lest you have a bitter juice.

THEY who have little butter must be content to spread thin their bread.

WHEN the stomach chimes the dinner hour don't wait for the clock.—*Table Talk.*

IN 1888 the United States sent abroad \$2,600,000 worth of sewing machines.

An Editor's Eggsperience.

Bro. Tafts of the Auburn Republican has been experimenting with setting hens and tells about it in a late issue of that excellent paper. He says:

We have been reading in an agricultural paper an article on the profit to be made by raising good poultry. It is written by a lucky dog named Smith, who goes on to tell how he began six years ago with a flock of six hens. Last New Year's Day he had 240 head of poultry, and he gives the most alluring table of figures for each month—so many eggs at so much a dozen, etc.—and his profits during 1888 were \$345.80.

About three months ago we bought some hens. There were five hens and a rooster which we got from Billy Crutcher for the very moderate sum of \$7.50. He brought them down one night after dark, and left them in the press-room where we found them later, and wondered why they did not try to get away. The Wyandotte rooster did try, but the hens couldn't be driven away. They had been selected with great care and they all wanted to "set" right where they were. They had selected various articles for incubation. One was fostering a bundle of paper, another a monkey-wrench, while one was trying to hatch out a glass miniature of Plymouth Rock which we use for a paper-weight. She was a Plymouth Rock herself, and the office boy thought she had selected that article because she knew her own breed when she saw it, but that probably was not the reason. It is more likely that she was attracted by the date, 1620. She wanted to tackle something of nearly her own age. We tore them away, however, and bore them down to the back yard, which had been provided with a high fence, and left them in the new Queen Ann hen-house specially prepared for their reception. But they brooded over their troubles for a week or two, during which time eggs at the store remained up to 40 cents a dozen. Then the egg of commerce dropped to 30 cents and one of our hens came out of her trance and laid an egg of home production. That week we fed them a dollar's worth of grain. In ten days more Rock Creek eggs came down to 20 cents, and then all of our hens laid. The cheaper eggs became, the faster they laid. The rats killed one and carried off the eggs of the others, but, to save the rodents that trouble, the sagacious hens began to lay under the building out of human reach but just where the rats congregated. The place was boarded up, but just before Easter they became dissatisfied and wouldn't lay at all, and of course grocery eggs went up. Then the ancient Plymouth Rock determined to "set" again. We threw a good many obstacles in her way, but her patience is invincible, and at present she has been straddling an old benzine can for two weeks. Another one is keeping part of a large stone warm and wears a Roderick Dhu expression which says "this rock will fly from its firm base as soon as I."

The other two spend their time loafing around waiting for store eggs to come down to 10 cents a dozen, while the rooster flies over the fence in to Warmington's strawberry patch. Scientific agriculturists say that a strawberry dist makes very superior eggs, but we cannot get the two hens over nor get the rooster back. Mr. Warmington himself has had some splendid exercise with the rooster. They have races together up and down the lea, but that rooster has developed sprinting qualities like a Red Bluff ostrich and it is economy to let him stay. The Republican's service in putting up the price of strawberries is alone worth a year's subscription to Mr. Warmington. He has our permission to kill the invader, but good stalkers and sharpshooters are scarce.

There may be something about the hen business we do not understand to make it profitable, but up to date our poultry account is something like this: Cost of plant and interest, \$7.75; feed, \$12; time devoted to caring for stock, \$50; total, \$69.75. As an offset we have had three dozen eggs at 20 cents a dozen, 60 cents; loss, \$69.15.

MAKING ALLOWANCES.—That is a very lovely disposition which excuses the faults of others, albeit severe with its own, on the plea that there is some reason, unseen and unsuspected, which, were it revealed, would go far to modify a harsh judgment. We are told of, or we observe in some fellow-creatures, actions which our tastes or our principles condemn; or we are pained by something which a friend says or does. Let us have patience not only, but also let us be tolerant, since we cannot know all the difficulties with which another must contend; nor can we estimate the weights with which another is handicapped in the race of life.—*Selected.*

STREET CAR DRIVER.—"Me and that off harse has been workin' for this company for 12 years."

Passenger.—"That so? The company must think a great deal of you both."

"Wall, I dunno; last wake the two of us was taken sick, and they a got a doctor for the harse and docked me. Gid-ap thare now, Betsey."

DISGUSTED HUSBAND. "Is there no way to stop you from kissing that nasty pug dog?"
Wife. "You might teach him to chew tobacco."

YOUNG FOLKS' COLUMN.

Tangles.

Enigmatic Snarls, Hard and Easy, for Young People of all Ages to Untangle.

32.—PICTURE PUZZLE.



Find in the picture:—1. The cause of many railroad accidents. 2. Something very inflammable. 3. Something used to fire powder. 4. A spirit. 5. The stem of a tree. 6. What physicians try to do. 7. Affirmative and negative votes. 8. One hundred and twenty pounds of glass, or a narrow vein of coal. 9. The way that cattle feed. 10. What soldiers do. 11. A timid quadruped. 12. What Boston is sometimes called.

33.—ARITHMETICAL PROBLEMS.

A schoolboy, Euclid was my dread,
 Its sines and tangents turned my head;
 Algebra, too, I am afraid,
 Was not my line;
 In arithmetic it was said
 That I might shine.

This problem then to me was given:
 So take a third of six from seven
 That what remains will then be even;
 'Twas past my power.
 You try—perhaps it may enliven
 An idle hour.

Another one I call to mind:
 Take two from five, leave four behind;
 A sum like that was sure to find
 A dusty shelf.

I think the problem was designed
 By Satan's self.

The crowning task was still to come:
 Write down the number six and from
 The same take one, and leave the sum
 Remaining nine;
 I found the task so troublesome
 I couldn't shine. W. WILSON.

34.—THE ROYAL PRISONERS.

An old king, a beautiful princess and a page were imprisoned in a high tower to which there was but one opening, a window 150 feet from the ground. The only means of escape was afforded by a rope which passed over a pulley fixed to the outside of the tower and on each end of which hung a basket. Whenever one basket was at the window the other was on the ground below the tower. The rope itself was inclosed in such a way that a person in one of the baskets could neither help himself by means of it nor receive help from the other prisoners. In short, the only way the baskets could be used was by placing the heavier weight in the one than in the other.

Now the old king weighed 195 pounds, the princess 105 pounds, the page 90 pounds, and they found in the tower an iron chain weighing 75 pounds. The weight in the descending basket could not exceed that in the ascending basket by more than 15 pounds without causing a descent so rapid as to be dangerous to a human being, although such a speed would of course not injure the chain. Furthermore, only two persons, or one person and the chain, could be placed in the same basket at the same time.

How did the party manage to escape and take the chain with them? J. H. FEZANDIE.

35.—CHARADE.

A common bird a first no doubt is;
 A second what no bird without is;
 But the two in combination
 To a bird have no relation.
 Now, smart solver, tell me whether
 You can put my parts together,
 And if you are a mechanic skillful,
 And if of tools you have a till-fall,
 You can make a whole completely,
 And do it workmanlike and neatly.
 NELSONIAN.

36.—WORD TRANSMUTATION.

[Each "move" consists in changing one letter, furnishing a substitute bearing the same relation to the other letters in the word, and still giving a legitimate word. Example: Change Sin to Woe in three moves. Answer—Sin, son, won, woe.]

1. Change Man to Boy in three moves.
2. Change Wife to Aunt in five moves.
3. Change Star to Moon in five moves.
4. Change Good to Vile in five moves.
5. Change Less to More in four moves.
6. Change Corn to Meal in four moves.
7. Change Home to Jail in five moves.

ROBERT.

37.—ANAGRAM.

Nice perception, neatness, care,
 In what we do, in what we wear,
 Good judgment shown in what we choose
 For ornaments we wish to use,
 Lie in one word which I have spelt
 In this droll way: "Nast uses felt."
 NELSONIAN.

ANSWERS.

P ure,
 E at;
 R un;
 C hump,
 H owl.

- 25.—Snake's-head-iris, iris; Shaman, Haman, a man, man.
- 27.—\$27.50.
- 28.—1. goudary.
- 29.—H and-saw.
- 30.—1. Life. 2. Strong drink. 3. A bad tooth extracted. 4. A ladder. 5. A wheel. 6. A match. 7. A secret. 8. A falsehood. 9. Advice. 10. The book of nature. 11. The winds.

Teddy's Lesson.

[Written for the Rural Press by ALBERTA.]

"Now, Teddy dear, don't go near the river. Won't you mind mamma and be good?"

"No'm, I won't go," replied Teddy, at the same time casting a longing glance toward the forbidden pleasure.

"Well, dear, good-by. Mamma must go now. It won't be for long, and Ponto is here. He will take care of mamma's boy." So saying, she kissed his upturned face, and stepping into the low carriage, picked up the ribbons and was soon out of sight.

Teddy returned to the now deserted house and began to play with his new puzzle. At last he flung it aside, and calling Ponto, wandered off in the direction of the troublesome river. It is not a very large stream at this time of year, but in the winter months is converted into a raging torrent by the snows in the mountains.

He played along its banks for quite a while, and at last, in running down a steep declivity, fell and rolled into the stream at its deepest point.

Ponto, who had been sitting looking on until now, gave a short bark and frantically ran up and down the bank two or three times; then seeing no one took it upon himself to rescue his young master, he plunged into the water and grasping the now sinking boy firmly by the clothes began to head for terra firma. Teddy just had strength enough left to throw his arms around Ponto's neck. In this way Ponto got him home, stopping once to rest.

Teddy had fainted on the way, and when Ponto got home he let him slide off on to the grass and began to lick his hands and face. In a short time Teddy had revived, but lay there looking up into the blue sky, wishing he had minded his mamma, and trying to imagine what she would do when she got home. Finally he fell asleep.

When mamma came she found her boy in a raging fever. Tenderly she carried him into the house and laid him in his little white cot. Under the doctor's care Teddy rapidly recovered, and in about four weeks was able to go out in the yard and play as usual.

He never forgot the lesson, and from that time on never disobeyed his mother. Ponto in the meantime was petted and fondled to his heart's content, and as soon as Teddy was able to be around was his constant companion.

When Teddy was older he went away to school, and at one time he was asked to "play hockey," as the boys say, and go into a neighboring forest and gather birds' eggs. The forest belonged to an old man named John Randall, who was a miser and very cross at that. Teddy was about to consent to become one of the thieving party, when he thought of his former escapade and told the boys he would not go. They called him a coward, and the next Sunday four of them went out quietly and without being found out. When they were brought back in irons and by a policeman, Teddy felt more grateful than ever to his mother for her kind advice.

Boys, listen to your mothers and do likewise.

The Yellow-Hammer.

[Written for the Rural Press by HESTER.]

Some six years ago, while living in one of the pleasant suburbs of Oakland, we had an unusual lodger.

Our house was an old-fashioned cottage completely embowered in running roses. The rooms were all on one floor, nothing above but the little peak formed by the roof. Often just at evening we would hear a little scratch, scratch, over our sitting-room.

We paid no attention to it for some time, supposing it caused by rats or mice. But soon we noticed that the scratching was heard only late in the afternoon, and about the same time. Then we began to wonder what caused it. Late one afternoon, while sitting by the window, I saw a yellow-hammer on a cherry tree a short distance from the house. He seemed so very happy I could but watch him. Soon he flew directly toward the house, and above the window where I was. After a few moments the scratching commenced. Then I thought it time to see how Mr. Yellow-Hammer gained an entrance to his sky parlor.

I went out and looked up over the window, and, sure enough, there was a knot-hole in the siding of the house, and the wide-awake bird had enlarged it with his strong bill. Ever after we enjoyed the scratch, scratch, for we knew our lodger was in his snug little home.

When the rains were over and the bright spring days came he left us, without saying good-by or paying his rent. All the long summer we saw nothing of him, but suppose he

and his wife had a home amid the green leaves and fragrant flowers. When the fruit was gathered, the leaves falling from the trees, and the sky darkened by the heavy rain clouds, we looked for our lodger's return. But alas! he did not come; his wife may have found pleasant quarters or the dear bird have fallen by a stray shot.

DOMESTIC ECONOMY

This and That.

EDITORS PRESS.—Have a bag with a large wire or hoop in the top to keep it open hung near the kitchen stove as a receptacle for waste papers, for kindling, etc.

Have a shelf or stack of shelves near the stove or range for salt-can, pepper-box, and other conveniences in preparing meals, to save steps.

As the dishes are "picked up" after a meal, place them immediately in a pan or pail of water, and let them remain while you are folding the cloth and setting away the food; it will wonderfully facilitate the dishwashing, and is a neat way.

Wash potatoes and all vegetables with a cloth.

Use spirits of camphor, made by putting the gum into alcohol, for burns. Apply instantly, and often, as long as it smart, which will not be long. It will not "smart;" will prevent blistering, if used immediately, and will take all soreness out.

For a deep burn or any old, obstinate sore, use a salve made by stirring well together equal parts of unsalted butter, strained honey and white flour (common flour). This I know to be an excellent remedy.

Hang up the broom or stand it on the handle. Drive three or four tacks under the hoops of your pails and tubs so they cannot fall off these hot days. It will save much annoyance by saving the tubs.

Put scraped onion on a felon and roast onion on the ear for gathering in the ear.

Use five drops spirits camphor in a teacup of water well stirred; doses, one teaspoonful once in 15 minutes until vomiting ceases, for cholera morbus, and once an hour after it ceases, for four or five hours. This has been known to cure the genuine cholera. But do not use camphor freely internally, under any circumstances, unless you are prepared for serious results. The above dose is for adults.

For bowel troubles—diarrhea—make a cordial of ripe blackberry juice, obtained by scalding and straining, and sugar in equal parts, strongly seasoned with ground allspice and cinnamon, simmered slowly one hour; bottled hot, corked tight. Dose, one teaspoonful. Will keep for years.

Use home remedies; mustard plasters are the stand-bys for pains. Don't send for a doctor every time you ache, but don't tell the doctor I said so.

Use up your inferior peaches, plums, grapes, or quinces as follows: Wash clean, scald, press out the juice and place it in porcelain, granite, or earthen, not in metal nor in stoneware, as a crock or jar; set on the back of the stove where it will scald but not boil, or in the oven, is better still, until it is reduced in quantity two-thirds; then add sugar to the taste; bottle hot and seal. Eat all you want as syrup or sop; it will keep you healthy and tastes good. Peaches and plums are delicious mixed—two-thirds peaches and one-third plums.

Having just read in last week's Press how to make coffee, I append another way which I can recommend: Brown your own coffee (old Government Java is the best) very carefully in the oven, not overheated, so that not a particle of the oil is lost. This can be told by the blotches of oil on the dripping-pan in which it is browned. Don't burn it. Grind very fine; a heaping teaspoonful for each person is plenty this way: Place in a hot pot, pour on boiling water, cork up the spout of the pot, cover tightly, set on the back of the stove; do not let it boil; let it stand 20 or 30 minutes. It requires no settling process. The aroma in all its perfection is fully preserved by this process, as in French coffee.

Frying eggs, covering the skillet tight so as to retain the steam will cook the tops to perfection and thus save the trouble of dipping the fat over them or making them so unsightly by turning them?

For moths, pour crude benzine over your carpets, clothing, or furniture. It will not hurt anything, but will brighten the colors and is a specific. Try this. Pour it on liberally. The odor will soon disappear. Rub your silver with baking soda made into paste.

What is the difference between the Bertha Baron and Mad. Hazard roses? The above hints have all been fully tested by your friend,

AUNT JERUSA.

P. S.—Some one please send soon a recipe for preparing conserve of roses and oblige.

Santa Cruz.

FRUIT PUDDING.—One pound raisins, stoned; one pound of currants, one-half pound of chopped suet, one-quarter of a pound each of bread crumbs, sliced citron and candied lemon, one-half cup of sugar, one nutmeg, grated, ten eggs, yolks and whites beaten separately; one-half cup of blanched almonds. Put in a pudding-bag and steam six hours.



A. T. DEWEY.

W. B. EWER.

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Our latest forms go to press Wednesday evening.

SAN FRANCISCO:

Saturday, June 8, 1889.

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Business Announcements.

[NEW THIS ISSUE.]

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Money to Loan—Howe & Kimball.
California State Board of Agriculture.
Buggies—Hawley Bros. Hardware Co.
Hereford Cattle—Henry Vaughan.
Nursery for Sale—"Z. D.," Box 2517.
Combined Harvesters—John Driver, San Leandro.
Hauers—Baker & Hamilton.

See Advertising Columns.

The Week.

Again we have cause to rejoice at the peace and quiet with which Dame Nature regulates her California affairs, and the comfort and safety which she vouchsafes to our citizens. For the terrible disaster in Pennsylvania, to which allusion is made elsewhere, however, Nature is not to blame, for it appears that it was merely for the sport of selfish magnates that the destroying water was pent up by a leaky dam. Would there could be some way by which some requital could be forced upon these men. But aside from this disaster, Nature has done ill at the East. There are other floods which have destroyed life and property, and in Michigan on Decoration Day there was a snowfall with snow enough to form drifts and do great injury to crops.

While such things are afflicting our Eastern friends, we are enjoying summer warmth and freedom from storms and disasters. It is but proper that we should send of our abundance to succor the distressed, and the \$10,000 which has been telegraphed from San Francisco is but a part of the contribution which will be made by the city and the State.

Canned Fruits Rates.

Shipments of canned goods by rail overland have been resumed since the rate was dropped to \$1 per 100 pounds, and large quantities are now going forward. The statement is made in several journals that Mr. A. D. Cutler is largely to be thanked for the reduction secured from the Transcontinental Association, and that he came very near getting a much better concession than was finally obtained. It seems that while Mr. Cutler was conferring with the railway men and claiming his greater reduction, there was a meeting in this city, which agreed that \$1 would be acceptable, and that that made any lower figure impossible. Mr. Cutler's argument, prepared for the Transcontinental Association, contains some very interesting data, which will be acceptable to our readers, who are specially interested in the distribution of the fruit product.

The schedule of rates which Mr. Cutler asked for is as follows:

Missouri Valley points.....	\$ 75
Mississippi Valley points.....	85
Chicago points.....	90
Buffalo points.....	1 00
New York City and N. E. points.....	1 10

In connection with this schedule, it is interesting to know what is Mr. Cutler's idea of the way in which California canned fruits are distributed at the East. He says that the approximate natural division of business under any existing rule is as follows:

Utah and Idaho.....	2'
Montana.....	3%
U. P. R. R. points from Ogden to Cheyenne.....	0 1/4
Colorado.....	5
Arizona and New Mexico.....	2
Kansas, Wichita, Topeka, etc.....	1 1/2
Missouri Valley.....	31
Texas.....	4
New Orleans.....	0 1/2
Mississippi Valley points.....	27 1/2
Chicago.....	10
Chicago to Buffalo.....	5
Buffalo to New York City.....	5
New England.....	3

Total.....100%

The territory above named, when on a longitudinal basis, covers everything from north to south, when not excepted. The importance of the great Central West as a customer for our canned fruits, and the insignificance of the old Middle and New England States, with their millions of people, would indicate that more effort should be made to secure more liberal patronage in that quarter. Of course local packers have an advantage, but they cannot put up such fruit as ours and more should be sold to them.

So much has been said of shipping canned goods by Cape Horn and by rail from New York to purchasing regions in the Mississippi valley, etc., that Mr. Cutler's figures as to the cost of that route are of especial interest. He says:

In this connection it is also fair to compare the following computation as to the cost of sail vs. rail freights on our goods to the seaboard, in accordance with which an equivalent of 60 carloads has left San Francisco within the past month by sail for New York.

Memorandum of cost of laying down 2 1/2 pounds canned goods in New York, Chicago and Missouri river points via Cape Horn:

Sail from San Francisco to New York, 2300 tons long weight (2240 pounds) for \$16,000 is \$6.95 per ton; per 100 pounds.....	.3103
Add 5 per cent contingent expenses.....	.0153
Add 4 months interest at 7 per cent is 2 1/2 per cent on 1 1/2 cases at \$1.75 per dozen.....	.0125
Add insurance 1 1/2 per cent, 10 per cent on 1 1/2 cases at \$1.75 per dozen.....	.0083
Total per 100 pounds.....	.3464

CHICAGO.
To New York as above......3464
Add by rail New York to Chicago......25......5964

MISSOURI RIVER POINTS.
To New York as above......3464
Add by rail to N. Y. to Mo. river......50......8484

The above being all rail from New York west bound, should be as well compared with lake and rail during a part of the year, aggregating considerable less.

This shows that we have a route by sea which should be effective in holding railway rates to decent figures. If the Nicaragua canal should be soon completed, and work upon it has now actually begun, we shall have a remedy for all such troubles as the canners have had with the Transcontinental Association. And the isthmus canal will help many other producers as well as those of canned fruits.

A MOVEMENT has been inaugurated to procure a telescope for Napa College.

The Shot-Hole Fungus.

The conditions this year seem to favor fungoid growths, and much complaint is heard of rust and smut in grain, curl-leaf of the peach and nectarine, shot-hole fungus on the apricot, etc. The last unwelcome visitant seems to be making itself exceedingly numerous this year and is ruining large quantities of apricots in several parts of the State. Those who are figuring on the value of their apricots should remember that this disease is somewhat reducing the amount of merchantable "cots," for canners cannot use the blotched fruit, nor will it be likely to sell for any purpose to which the fruit is now applied.

These fungoid diseases of fruit trees need more general attention on the part of the growers. Now that the friendly insects are going to eat up the injurious ones, the fruit-grower needs some other evil to fight to keep him out of mischief, and the fungoid affords such opportunity. As to the shot-hole fungus, it does most conspicuous work on the apricot because the dark blotches show so clearly on the yellow fruit, but the fungus works sadly on the plum, cherry and some varieties of peach. The popular name is given from the fact that the fungus kills a small round portion of the leaf substance, and this drops out, leaving a small round hole. These occur in large numbers on the leaf and give it the appearance of having been riddled with shot. By this common test the disease is easily recognized.

What to do for the shot-hole fungus is not so well known, for but few experiments in its repression have been tried as yet. The remedies to try first will be those which are known to check fungoid growth—bluestone, sulphur, lime, etc. Mr. Klee, who has given attention to the subject, writes as follows:

I incline to the opinion that in the sulphides of either potash or soda we will find a remedy, but this must be applied immediately on the appearance of the fungus to kill the spores. Mr. Thurber of Vacaville applied this year whale-oil soap and sulphur, and judging from the appearance of the trees, it did considerable good. Air-slacked lime, dusted, also at the first appearance of the fungus, has been tried at Hayward by Dr. E. Kimball, and, as he claims, with good success. The application was made several years ago, and no perceptible amount of fungus has shown itself since. As the shot-hole fungus no doubt spreads rapidly from tree to tree, the spores being borne by the wind, any case appearing in an orchard ought to be stopped as soon as possible.

Danger of Fire.

The dry season of 1889 is now fairly commenced, and the field fires already reported from different portions of the State warn us of the increasing need to beware of all those small beginnings which may end in disastrous conflagrations.

This is the time to clear away and carefully burn up the dead grass and light rubbish, which, if allowed to lie beside the barn or gather in fence-corners, will presently become as dry and inflammable as tinder, ready to blaze up on the least occasion.

Henceforward, till the next autumnal rains begin, beware of the thoughtless picnickers' abandoned campfire; of the half-burned matches and cigar-stubs tossed away by the inveterate smoker in the edge of the grain-field or along the roadside; yes, of the unused match dropped in the hot, sunny stubble, where the wheel of a passing wagon may ignite it; and even of the paper wadding shot from the sportsman's fowling-piece. But look out especially for the foolish brush-burner, the reckless tramp and the cigarette fiend, lest you have reason to exclaim again: "Behold how great a matter a little fire kindleth."

ARID LANDS.—Secretary Noble has approved the plan for continuing the irrigation survey of arid lands proposed by Major J. W. Powell, director of the Geographical Survey. The area to be surveyed in California will comprise the unmapped portions of the drainage basins of the Yuba, American, Cosumnes, Mokelumne, Stanislaus, Truckee and Carson rivers. About 300 square miles in Nevada and about 4000 square miles of the basins of the Truckee and Carson rivers are also included.

"CALIFORNIA ON WHEELS" reached the Hub week before last and came to a standstill at the Park Square station of the Old Colony railroad, where the cars and their contents won ample notice and praises from the fastidious Bostonian.

The Great Disaster in Pennsylvania.

(Continued from page 541.)

the same vicinity and similar to those through which the roaring waters passed until they reached and destroyed the villages and towns in the broader valley below.

Governor Beaver of Pennsylvania, in his account of the disaster which is telegraphed as an appeal for aid and succor for the distressed people, says:

The valley of the Conemaugh, which is peculiar, has been swept from one end to the other as with the besom of destruction. It contained a population of 40,000 to 50,000 people, living for the most part along the banks of the small river, confined within a narrow limit. The most conservative estimates place the loss of life at 5000 human beings and the property loss at \$25,000,000.

Whole villages have been utterly destroyed and not a vestige remains. In the more substantial towns the better buildings to a certain extent remain, but in a damaged condition. These who are least able to bear it have suffered the loss of everything. The most pressing needs, so far as food is concerned, have been supplied. Shoes and clothing of all sorts for men, women, and children are greatly needed. Money is also urgently required to remove the debris, bury the dead, and care temporarily for the widows and orphans, and for the homeless families.

Other localities have suffered to some extent in the same way, but not in the same degree. Late advices would seem to indicate that there is great loss of life and destruction of property along the west branch of the Susquehanna and in localities from which we can get no definite information. What does come, however, is of the most appalling character, and it is expected that the details will add new horrors to the situation.

Other accounts place the loss of life at far higher figures, even as high as 12,000, summoned into eternity almost in the twinkling of an eye by the relentless waters. The river was so filled at places with the wreckage of buildings, etc., that the raging waters beneath could not be seen. In this debris were hundreds of people, and as burning lamps and stove fires were borne along on the flood the accumulating masses of debris took fire and a conflagration completed the destruction of life and property which the waters had begun. The scenes are altogether beyond description and still the peril is great. Bodies are found by dozens and scores all along the banks of the streams to which the waters have taken their course. Hundreds more are held in the debris which chokes the channels, and the cities below which depend upon these streams for their water supply fear the pestilence which will follow unless the waters are freed from their burden of the dead.

Relief work is progressing as rapidly as possible. The General Government, the people of other States and of foreign countries are telegraphing large sums of money to aid in giving food and shelter to the homeless, and in rescuing the unburied dead from the places into which the waters have hurled them. It will be weeks before the full extent of the disaster can be known.

WOOL-GROWERS' PETITION.—Asst Secretary Tichenor has received for transmission to the President a petition from the delegates to the convention of wool-growers, held at Washington last January, asking that an extra session of Congress be called to consider the question of tariff legislation, with special reference to woolen products. The petition, which is dated Columbus, May 24th, also urges the Administration to sustain the N. Y. appraisers in assessing duty at 35 cents per pound on imported worsted goods.

HAYWARDS FRUIT-GROWERS have just organized to ship their own fruit East and aid each other in finding a market. The cherries sent to Chicago thus far this season have been sold at from \$1 to \$2.25 per box, while the prices obtained here in S. F. hardly pay for picking and packing.

STONE FRUIT IN CARLOADS.—Two cars of fruit were shipped East from Sacramento May 29th, one consisting of cherries from San Jose and San Leandro and the other of peaches and apricots from Vacaville and Winters.

ORANGE COUNTY, CAL., is to be. The election on Tuesday was largely in favor of the division, except in Anaheim and thereabout. Out of 3000 votes thrown only 500 were against the measure.

DURING the past two weeks a remarkable series of mirages has been reported at different points all over Southern California.

The State Fair of 1889.

Preparations now in active progress foreshadow a notable display both at park and pavilion during the State Fair of 1889. Improvements are going on at the park both at the cost of the society and by individual enterprise, for it is the policy of the society to give ground room to private individuals who desire to erect stock buildings for their own use of a style approved by the management which may be afterward purchased by the society. Ex-president Shippee recently constructed the finest stable on the park at his own cost, and others may like to do the same. Besides these private efforts, the society has under way substantial improvements of its own, of which it is too early to speak in detail, but of which we shall keep our readers duly informed.

The pavilion department of the fair will also show many new features and an extension of old ones which have proved popular. The grand building will be freshened by a new coat of paint throughout and will generally be fitted to harmonize with the exceptionally fine and extensive county displays which will be made this year. It is expected, too, that the machinery and other departments will also be unusually full. The progress we are making in the invention and manufacture of tools and implements suited to California conditions is wonderful, and the State Fair affords the best opportunities in the world to bring such mechanical triumphs to the attention of those interested in their work.

As introductory to our customary work in the aid of our great State exhibition, we give on this page the portraits of those officers of the society upon whose shoulders rest the most important labors and the greatest responsibility in connection with the fair. The face of Christopher Green will appear a familiar one to many readers of the Rural. He has been a staunch friend and promoter of the State Agricultural Society since the earliest times, and for the last 16 years has been a member of the board of directors, and is now the president of the organization. Mr. Green is still young, as he is under 60, and he is younger in vigor and spirit than he is in years. He has been a resident of California since 1852, and has held many important positions. Two terms, or six years, he was Mayor of the capital city of Sacramento, and he served three years as postmaster of the city. Since 1859 he has been engaged in the live-stock industry, both as a grower and as a purveyor of cattle products. He is a man of great cordiality and affability, and has a wide circle of friends. During his incumbency of the presidency of the State Society he may be trusted to use his utmost efforts for the success of its enterprises.

Another well-known face is that of Edwin F. Smith, who has been secretary of the State Society since 1880, and during his administration the receipts of the organization have advanced from about \$53,000 to over \$94,000. This is certainly one impressive way to show the growth and progress of the work in his hands.

No one who knows Mr. Smith need be told of his earnest devotion to his work and of the acceptability with which he discharges his duties. He is a Sacramento boy, having been born in that city in 1853. He is son of Capt. T. C. Smith, the originator and founder of the Sacramento horse market, and he has thus been familiar from his youth up with the matters which now largely enter into his official duties. He is also a most admirable clerk and accountant, and has served several terms with distinction as secretary of the State Senate. His executive ability is of the highest order, and he has labored with zeal for the last nine years in the upbuilding of the State Society.

With these chief officers in charge, and with an unusually harmonious feeling in the board of directors, it can hardly be doubted that this year's fair will be made a notable success.

INOCULATING FOR ANTHRAX.—Mr. Griffin, U. S. Consul at Sydney, reports to the State Department that anthrax, or splenic apoplexy, which for so many years has been devastating herds of cattle in New South Wales, is being effectually checked by Pasteur's system of inoculation.

TIMBER constitutes a great industry and represents an annual expenditure of \$1,365,000,000. Its consumption throughout the world has increased 50 per cent since 1850.

A Needed Postal Change.

The postal service of our country is wonderful, and it is excellent, considering the character, extent and sudden growth of much of our territory. That there should be some friction amid so much machinery was to be expected, but we are not true patriots unless we endeavor to correct anything whatever that is at fault. The idea of immediate delivery was good, and no one objects to pay ten cents extra for expediting correspondence when haste is necessary. There is need, however, of improvement in one particular. Often it is necessary to com-

buy the stamp there. To illustrate the inconvenience arising from the present system, let us refer to the Oakland postoffice, the second largest city in our State. Some of their most important mails close between 7 and 8 A. M., yet the stamp window is not opened until 7:30 A. M. Either the stamp clerk should be required to have his window open for the sale of stamps by 7 A. M., or our proposed amendment should go into effect and we should have the privilege of putting on 14 cents, and a letter so stamped should be treated in all respects as if it had the appropriate stamp. The mailing clerk would have no difficulty because the un-



CHRISTOPHER GREEN, ESQ., PRESIDENT CALIFORNIA STATE AGRICULTURAL SOCIETY.



EDWIN F. SMITH, ESQ., SECRETARY CALIFORNIA STATE AGRICULTURAL SOCIETY.

municate more fully than we can afford by telegraph, and at a time when we cannot obtain the peculiar ten-cent immediate delivery stamp. Let such cases be provided for by treating any letter overpaid 12 cents, as if it had the regular immediate delivery stamp upon it. This would not be a means of relegating the present stamp into "innocuous desuetude," but it would be a great convenience, while the extra expense would protect the present stamp so that it would always be used except when not obtainable. Now while ordinary stamps can generally be obtained of the news-dealers, at least in denominations of one and two cents, there are few, if any, who keep the immediate delivery, because the very nature of that stamp requires attendance of the buyer at the postoffice to mail his letter, so that he would naturally

usual number of stamps on a letter, not overweight, would sufficiently indicate the writer's desire. But this could be clearly defined by writing the words "for immediate delivery" directly above the stamp. It is exasperating to compel a man to wait over a mail to get the regular stamp when this proposed substitute would seemingly cover the ground.

WE WANT HIM HERE.—There is said to be a dog in Americus, Georgia, that lives on English sparrows, which he catches by slyly creeping upon them. Such a quadruped *Vedolia* would be welcome here in California. "May his tribe increase."

THE NICARAGUA CANAL.—Men, tools and stores are now on their way to Nicaragua.

ENTOMOLOGICAL.

Codlin Moth Notes.

EDITORS PRESS:—This is considered by old residents here an earlier spring than the average and with less cold weather. Therefore the condition of the codlin moth in Sonoma county to-day cannot be considered abnormal. There has been less low temperature since spring opened than the average. Therefore I would say that this month is as far advanced in egg-laying and larval growth to-day as in the average of seasons. If so, we have made mistakes in our recommendations about spraying to poison this insect in the coast counties. All have recommended doing this much too early, and there have also been mistakes made on other points. I looked over an orchard very carefully on May 26th, and could find no instance where a larva had penetrated an apple, though I knew that the moth was quite plenty there. On that day I found near the orchard, in a barn where apples had been stored, 10 pupae and two caterpillars that had not changed to pupae yet.

To-day, May 28th, in the same orchard, a search of an hour rewarded me with 20 apples in which the larvæ had penetrated the fruit sufficiently to make a showing; they were from an eighth to a twentieth of an inch in length, showing that they were only one to four days from the egg. Of these 20 larvæ 14 had entered the apples from the side, two in the eye or calyx, three quite near the eye, and one near the stem. Here we find evidence of another mistake, for it has been generally said that the eggs for the first brood were nearly invariably laid in the calyx. It is so least. Twenty years or more of pretty close observation East showed me no instance of an egg laid elsewhere than in the eye of apples early in the season. But this is certainly not the case in this State; at least in the coast counties. To day the apples here at Petaluma are well grown, averaging over 1½ inches in diameter.

One good point I found to be the rule to-day, which is—in no case did I find an egg laid, except on the upper side of the fruit, in such positions that a downward or falling spraying would reach them, and, in all cases, a full moistening of the surface of the fruit with poison in solution would reach all the worms found to-day, I am quite sure.

The larval habits here, when quite young, seem to be very different from what they are East. Especially is this true of those eggs which were laid elsewhere than in the calyx, and as these seem to be very largely in the majority, they must have full consideration. East, as I have said, the eggs of the first, or earliest egg-laying moths, are, so far as I have observed, laid in the eye of the apple, and the larva at once penetrates by a minute burrow to the core of the fruit. Here there was no exception to the rule. When the egg is laid elsewhere than in the calyx, the young larva does not penetrate at once, but cuts a wide, shallow cavity, seeming to feed on the skin of the fruit alone, thus giving us an excellent chance to poison it by spraying with the arsenites.

I therefore conclude from these observations that the early sprayings, as recommended for the Eastern States, directly after the petals fall, would do no good whatever in this State; or, in plain words, it would be fully a month too early. My observations show that 6 to 10 days ago would have been as early as spraying would have been of benefit, and that a proper spraying would have killed every larva found to-day save possibly one. I should say, then, if the moth is neither early nor late this spring with her egg-laying, that to gain the best results we should spray in Sonoma county on the 15th of May, again on the 25th, and again on the 5th of June. We dare not spray the early apples later than this, and even then the spray should be weak in poison. Late apples might be sprayed again June 20th.

These remarks are meant to be confined to the open orchard with a normal exposure, for it is true that in warm sheltered locations larvæ may be found half to two-thirds grown to-day.

That caterpillars of the codlin moth may yet be found that have not changed to pupæ is a most surprising fact to me, and if my observations East were correct, this moth is taking on new habits here. I will explain. I had two large, deep cellars East in which quantities of apples were stored over winter. The doors and windows of these, and all openings of every kind, were kept closely covered with wire gauze from the last of March until June 1st, or about a week after any moths were seen trying to escape; thousands died at each window, while here in much warmer California we find to-day caterpillars not changed to pupæ yet, and Senator De Long of Novato records that moths were found in his apple-house so late as August 15th of the year before brood, or at least so the account reads in Cooke's book. Well, if they are larvæ now, why may not those which had spun up in a very cool place remain so until August?

I have published this winter and spring that the larva of the codlin moth was being very generally destroyed in Sonoma county by other insects, notably, by a ladybird—the large brick red one with nine spots. This was the case everywhere out of doors that I could find—80 to 93 per cent of the larvæ in the cocoon had been destroyed by this and other insects. But the facts were very different where the

larva had spun up in buildings, which they do in immense numbers when apples have been stored or handled in or near them. There we found none interfered with, all alive and in fine condition for future destructive work. I found sheds and other buildings in large, fine orchards, where nearly every larva had been destroyed out of doors, with every crack and crevice packed full of fine, healthy worms, they even in many instances having gnawed out hiding-places on the exposed surfaces of boards, tens of thousands of them in one barn; enough to spoil every apple in a very large orchard.

In this neighborhood such buildings will constantly keep up an abundant supply. I carefully examined one large orchard, with cloth bands on the trees that had not been disturbed since last spring. An average of about 60 larvae had spun up under each band last fall. On April 1st I took off and examined carefully 73 of the bands and only found two living larvae. All the others had been eaten up. Yet near the middle of that orchard was an old shed with tens of thousands of codlin moth larvae hid away safely in it. It would have paid nicely to have burned it, or a dozen such.

—D. B. WIER, *Petaluma, Cal.*

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

FRUIT THIEVES PUNISHED.—*Haywards Journal*, June 1: Of late a gang of young hoodlums from Oakland have been raiding cherry orchards in San Lorenzo and around Haywards. They have no respect for the trees, but break down the limbs and raise Cain. As high as 14 entered Johnny Marlin's orchard the first of the week, but he used a club so effectively they fled in terror. Constable Prowse was notified, and Monday arrested three who were trespassing on Jas. Mouat's place, and brought them before Justice Austin, who sent them below for 30 days. Tuesday, George captured three more for raiding H. Marlin's orchard, and Judge Austin gave them a dose of 10 days in the county jail.

BET SUGAR.—*Call*, June 1: The Alameda Sugar Co.'s works at Alvarado are being fitted up for the handling of the present season's crop. The machinery has been much improved since last year. This season about 55 men will be employed, in two shifts, on the consumption of 200 tons of beets daily, as against 80 men on a consumption of 90 tons daily last season. From \$20,000 to \$30,000 will be expended upon improvements, and the plant will be put in first-class condition. It is calculated that the works can be operated upon a larger scale to greater profit, and probably the plant will be enlarged another year.

Butte.

YOUNG FIG ORCHARD.—*Oroville Register*, May 30: Hon. John C. Gray during the past winter and spring set out at Olive farm, near Wyandotte, 2400 White Adriatic fig trees. These were planted on a tract of land that until within a few months previous to the time of plowing had been covered with a heavy growth of timber. The trees have not had a drop of water, yet in the whole 2400 we did not see a single one that had failed to start. The figs are planted far apart so that they will have an abundance of room as they become of large size. Though the fig has been growing here for many years, yet no one in this part of the State had ever set out a large orchard until the gentleman in question planted his 50 acres on Olive farm.

TIMOTHY AND ALFALFA.—Henry Baschman has a fine timothy and alfalfa growing as can be found in the State. The altitude of Paradise is about 2000 feet, and if these two valuable grasses will grow at that altitude, land on the mountain slope will certainly increase in value for hay alone. While the alfalfa has done finely here in the valley, but few have ever tried it upon the hills, nor has it been thought possible to grow the timothy as low down upon the mountains as 2000 feet. This is a cold-country plant and in the valley the roots are killed by the hot sun.

Inyo.

HEMP AND FLAX ON TRIAL.—*Bishop Register*, May 30: J. H. Muller proposes to give the hemp and flax-growing business a test next year. He has made arrangements for the use of land near Big Pine, and will have an experienced workman on hand to take care of the product. In the conviction that the business will pay, he offers to furnish seed of either plant to any farmer wishing to experiment with it.

RYE.—*Independent*, June 1: Last fall W. L. Hunter sowed a few acres of rye near his house at Georges Creek. Chickens frequented the ground all winter; early in the spring the grain came up thick and excellent pasture for brood mares; now there is a heavy crop of rye nearly ripe. This grain should be more extensively grown; it is valuable feed.

MULBERRY TREES planted by W. L. Hunter at Georges Creek three years ago have a crop of berries this year. The trees make a good shade and wind-break, and are very easily raised.

AFRICAN BUCKTHORN.—F. McIver brought a lot of African buckthorns and planted them along the Eastside canal this spring. They are making fine growth and appear to be admirably

suited to the soil and climate. This buckthorn makes a first-rate fence, is easily and cheaply grown and makes a good wind-break.

OWENS RIVER CANAL.—For three years work has been going forward on the Owens river canal. The magnitude of the undertaking can only be understood by an examination of the work and the country to be irrigated. In company with H. H. Spear, the Supt., a trip was recently made to the head of the canal. The water will be taken from the river at a point about 10 miles west by north from Bishop, where the stream runs through a deep, narrow canyon. The canal is taken along a side hill so steep that the detritus is barely at rest and covered with huge boulders and rocks, there being in many places cement so hard that blasts were necessary to move the ground at all. By exceedingly hard labor and unusual pluck the work has been accomplished. Mr. Spear has a contract for completing the canal to the Clausen ranch, nine miles from the head-gate. The hardest part of the work has already been completed. Of the ultimate value there can be no question. The ditch is taken out at the highest practicable point in the valley, and will cover all the land now watered by other ditches. The canal stock is owned by citizens of Bishop. The success of the undertaking is purely a question of labor and energy; there is no syndicate, the owners being comparatively poor men who wish to make homes for themselves.

Los Angeles.

POMONA ORANGES.—*Progress*, May 30: W. R. Strong & Co., who have had a force of Chinamen at work packing oranges and white laborers in the orchards in this place for the past three months, closed their business season in Pomona yesterday. The firm has bought the bulk of the fruit in this place, and their total shipments for the season have been 43 carloads, or 12,900 boxes. Besides this, O'Connor and Nesbit have shipped 24 carloads, and other parties have shipped seven carloads, making the total quantity of fruit sent from here 74 carloads, or 22,200 boxes. A year ago the quantity of oranges shipped from Pomona was 38 carloads. There are 13 large orchards here that bore fruit for the first time this year, and that promise to bear abundantly next year.

HOW TO MARKET PRUNES.—One of the most extensive prune-growers in Pomona is George Rhorer, who will dry his own fruit this year and ship it to St. Louis in white cloth bags, where the prunes will be put in boxes and sold. Mr. Rhorer has given this matter much attention, and informs us that he believes the best financial results can be had from thus marketing the fruit this season.

Placer.

ORCHARDS AT DUTCH FLAT.—*Cor. Auburn Herald*, June 1: The last three years have demonstrated beyond all doubt that it pays to raise apples, pears and prunes, and particularly Bartlett pears and late winter apples. During the last year there has been a decided onward movement in planting in this vicinity. Towle Bros. have planted 1500 apple trees just above their lumber-yard at Towles. They have built an immense reservoir at Snake Valley with which to run the pulp-mill during the summer months. This water after being used to run the pulp-mill is collected again and can be used for irrigation around Dutch Flat and Gold Run. Every fruit-grower here has planted more trees this winter and will plant more again next winter. J. Chester planted over 1000 trees, mostly Bartlett pears, on his place below the station. H. A. Frost planted about 500 trees above the station on a hillside where no water for irrigation is obtainable. He is satisfied by experience that he can raise good fruit without irrigation. Last year he did not irrigate his large orchard of 2000 trees at all, and yet shipped some of the very largest and best-flavored fruit shipped from Dutch Flat. He cultivates his land instead of irrigating. Some of our other orchardists are beginning to do the same.

FRUIT PROMISES.—*Republican*, May 29: The peach crop in Placer county this year will be very light, probably not more than one-third of a crop. There is not a grower in the vicinity of Auburn, Newcastle, or Penryn who reports more than half a crop, and many of them put it at much less. Every other variety of fruit promises well. Pears, prunes, olives, figs, and particularly grapes, are almost certain to yield a full crop.

San Bernardino.

RIVERSIDE ORANGES.—*The Press and Horticulturist* gives the following review of the orange shipments from Riverside for the current season, and for former years:

	Cars.	Boxes.
December shipments.....	8	2,386
January ".....	77	22,024
February ".....	141	40,113
March ".....	171	48,043
April ".....	339	101,478
May " to 30th.....	134	38,380
Total to date.....	887	253,018

SHIPMENTS IN PREVIOUS YEARS.

	Carloads.
Crop of 1880-81.....	15
Crop of 1881-82.....	42
Crop of 1882-83.....	45
Crop of 1883-84.....	50
Crop of 1884-85.....	456
Crop of 1885-86.....	506
Crop of 1886-87.....	375
Crop of 1887-88.....	725

CHEERRIES.—The cherry trees have fruited heavily at Banning this season, and the fruit is

said to be large, juicy and of fine flavor. The *Herald* expresses the opinion that since there are few spots in Southern California where cherries thrive, it would be well for Banning to plant them extensively.

BARN AND LIVESTOCK BURNED.—*San Bernardino telegram*, May 29: The barn of N. N. Bradford was burned at 3 o'clock this morning. The contents, comprising four mules, hay and wagons, were consumed. Loss, \$2000; no insurance.

San Diego.

ON THE UPPER SWEETWATER.—*Dehesa Cor. Sun*: This season's hay crop in this valley has been very good, and vegetables of all kinds look very well. The vineyards and orchards are wonderful to behold. Trees of the various denominations are loaded to their utmost capacity, while the vineyards excel any previous year. The grape yield will probably be double that of last year. It would require, I think, over 100 cars to carry off all of our green fruit this year, take it from the Jamacha up to Alpine, and yet our nearest railroad point is six miles off. As near as we can estimate the population, there are over 300 families located and living upon their homes from the Jamacha up to Guatay, all of whom would patronize a railroad if built into this portion of the valley.

A USEFUL DOG.—J. R. McFarlan has lost his dog, which has not been seen for 10 days. McFarlan taught him some years since so that all he had to say "Quails in the grapes, Mago," and the dog would go clear around the vineyard and clear the quails. The dog was valued at \$300.

Santa Barbara.

POULTRY IN THE SANTA INEZ.—*Cor. Santa Barbara Press*: Mrs. Wm. Wyman and husband live about 15 miles from Los Olivos up the canyon Santa Agnada, where they are engaged in poultry raising. Mr. Wyman leaves the work chiefly to his wife, who has raised 1000 chicks this spring. These are now about half grown. The method followed is to take the chicks from their mother and place them in a brooder until two days old, feeding them on soaked cracked wheat. At the end of two days they are returned to the old hen, who has meanwhile been left on the nest. Mrs. Wyman says they have never refused the returned brood, but soon leave the nest with them. The object of taking them away is to allow them to get some strength under favorable circumstances, out of danger of being trampled in the nest. The work, while reported as quite hard, is, it seems, not too great for one woman and a 12-year-old boy to attend to, and with much profit. In addition to her chickens, Mrs. Wyman has raised 300 young turkeys this season.

HEATH'S WALNUTS.—*Carpinteria Cor. L. A. Express*: The famous grove of Col. Russell Heath, comprising 180 acres, the largest walnut orchard in America and said to be the largest in the world, is decidedly magnificent. Col. Heath is a native of New York State, locating on the place where he now is in '58. When he took it there was a heavy growth of oak timber, which has cost him at least \$100 per acre to clear. He has planted the trees from 33 to 40 feet apart, but thinks this too near. He plants the medium hard shell variety, discarding the soft-shell entirely, not considering it as good in any respect. About one-third of this grove is in bearing, and from this 60 acres he sold last year 80 tons of walnuts at from 9 to 13 cents per pound, or an average of 11, which would make a gross income of \$17,600. He has built a dryhouse where the nuts, after being washed, are dried so as to prevent molding and souring, assorted into three different sizes by machinery, put into sacks of about 60 pounds each, branded with his own special brand and shipped all over the world. Wherever they are used once, they are wanted again. It will pay any one to stop over a day on his way to or from Santa Barbara and visit this wonderful grove. It is no small thing to boast of the finest walnut orchard in the world, bearing an annual income of from \$15,000 to \$20,000, with a good prospect of its being doubled and trebled in a few years.

Santa Clara.

SANTA OLARA SEED FARMS.—*Dr. G. W. McCracken to Mercury reporter*: In addition to our orchards and farms we have another very important rural industry in this county—our garden-seed farms. There are fully 2000 acres of land devoted to that pursuit now. The seeds are shipped all over the Union and find a ready market. In the East the ripening seeds are frequently affected or damaged by the rain. Here we have clear days and warm sunshine to ripen them to perfection, and to enable the grower to gather, dry and pack them without injury.

Tehama.

OVINE VINE-PRUNERS.—*Oroville Register*: George Champlin, one of the largest sheep-owners in the upper part of the State, says that at the immense vineyards at Vina, bands of sheep are turned among the vines and the animals feed upon the sprouts of the previous year, thus saving the expense of pruning the vines and affording the sheep an immense quantity of feed.

Tulare.

DAIRYING IN THE MOUNTAINS during the long summers has generally proven lucrative. The consumption of milk and butter by campers, tourists, mill hands and miners has greatly encouraged the business. Besides, a groceryman in the valley knows that mountain butter is above par with his customers. The number of butter ranches has therefore been increasing.

The nucleus of another one was taken up from here last Friday by J. B. Agnew, E. J. Sorrell and C. Lillie. The dairy will be located in Kings River canyon on the land of Zumwalt and Agnew. Mr. Sorrell will have charge.

GOING TO IRRIGATE.—*Visalia Times*, May 30: The residents of Saucelito school district, on Deer Creek and in the vicinity of Belleville, are moving to form an irrigation district under the Wright law. About 10,000 acres of land will be included in the district, and the land-owners themselves will attempt to carry the bonds. The water for the canal will be taken from Deer Creek, several miles above the head of the present Saucelito ditch.

SENECA CHIEF WHEAT.—The *Times* reporter visited a 30-acre field of it growing on the ranch of Jasper Harrell last Tuesday. The field viewed was sowed in December, and was not yet entirely ripe. The stand was fine, the heads long, and the grains large and plump. Mr. Harrell stated that it was great wheat to stand, and should be planted early enough to receive all the rain possible. The field he has, it is estimated by competent judges, will yield not less than 40 bushels to the acre. The straw grows rank and is not given to falling down. The kernel is very large, and will certainly weigh heavy when in the sack. Millers testify that it is good wheat for milling purposes. Mr. Harrell says he will sow nearly all he has next season, believing it to be the wheat for this section when planted early enough. A sample grown on the ranch of R. N. Clark on Tule river has been exhibited at this office and to numerous farmers, and all agree that it is the best looking wheat ever seen here.

ALFALFA ON SANDY FLATS.—Several farmers residing on the banks of Tule river have recently tried planting alfalfa on the sandy bottomlands which skirt the river in many places. These sandy flats soon lose their productiveness when subjected to the irrigation made necessary by gardening, and in a few years cease to produce well, but when planted in alfalfa the land increases in richness, and it is found that the profit, after a year or two, is greater than from vegetables, and the labor less.

Yolo.

HOREHOUND.—*Mail*, June 3: On Saturday a party passed through Woodland with a large wagon loaded with horehound (*marrubium vulgare*), which they had gathered in different parts of Yolo county. It grows wild along Cache creek and in many other places. They were taking the horehound to Sacramento, where they will bale it and ship it to Peoria, Ill. This is not their first trip into Yolo county for the plant. They have stored at Sacramento nine tons, and with the ton gathered during the last trip will have sufficient to load a car. They value the ten tons at \$750, and will have to pay \$200 for freight. They gathered the ten tons in two months, so it will be seen that they make a profit.

SNAKE LILY.—*Woodland Mail*: Mrs. David Hamilton, who resides on Third street, sends to this office a magnificent specimen of the "Snake lily." It is of a deep, velvety purple, fully 18 inches long. The spadix, resembling an elongated red pepper, projects nearly a foot and a half, and constitutes the peculiarity in the flower which gives it its name.

REPELLING MOSQUITOES.—Many Woodland housewives are using branches of the eucalyptus tree in their windows in place of mosquito netting. Mosquitoes will not come near the eucalyptus tree or its leaves, and by crossing a couple of small branches in an open window each morning and evening, immunity from the attacks of the little pests may be secured. Mosquito netting obstructs the free passage of air, and the tree-branch substitute possesses the advantage of being a good ventilator.

Yuba.

EARLY PEARS AND BLACKBERRIES.—About 20 boxes of blackberries and a like amount of pears were shipped from Marysville June 3d, being the first of their kind from that region this year.

OREGON.

SOME BIRDS SET FREE.—Portland dispatches tell how several hundred song birds, lately received from Germany—nightingales, skylarks, thrushes, starlings, gold, green and bull finches, linnets, etc.—which have been on exhibition for several days in large cages at the exposition building, recuperating and regaining the use of their wings, were turned loose at the city park and adjoining private grounds on the 22d ult. Such a joyous twittering and fluttering as took place when the cages were opened and the little prisoners released in the bright sunshine! A number of birds have been sent to various parts of the State. No fears are entertained as to their doing well, but the question is, will they know where to migrate this winter and will they return here in the spring? The society having charge of them is already preparing for further importations and English residents think of bringing out a lot of singing birds from Great Britain, the British sparrow not being included.

COLD STORAGE AND FRUIT-DRYING.—*Salem*, May 28: Articles of incorporation were filed in the Secretary of State's office to-day by the Oregon Refrigerator and Fruit Evaporating Co.; principal office, Ashland; capital stock, \$50,000; G. W. Saow, D. F. Fox, G. W. Ganiard, W. J. John and T. P. Rideout, incorporators.

Hunting a Camping Place.

(Original By S. B.)

For many years my family have been in the habit of spending their summer vacations in camp. We have camped in almost every direction within a reasonable distance of San Francisco. For many seasons our tents have formed a part of the canvas town which have annually migrated to the woods and running brooks, from the Mission. It seems as if the people of the Mission were more inclined to spend their summer vacation in this manner than the people of any other locality; at any rate the "Mission campers" have become famous in every direction within a hundred miles of San Francisco.

Our first experience of camp life was at Felton, on the South Pacific Coast narrow-gauge road about six miles from Santa Cruz, and certainly a more desirable spot for the purpose, we thought, would be hard to find. It had the advantages of being near the town as a base of supplies and near the railroad station, which was convenient for going and coming for those of us who had to attend to our business in the city, making weekly visits—from Saturday night to Monday morning—to our families in camp. The tents were pitched in a grove of sycamores, about a quarter of a mile from Felton and the same distance from the station on the banks of the San Lorenzo creek. The grove and grounds were situated so that we could arrange our tents in a circle facing toward the center, in which at night our camp-fire was built. The surrounding scenery was delightful, and the ride through the Santa Cruz mountains romantic in the extreme. It was within easy walking distance of the Big Tree Grove on the one hand and the Lime Kilns and Boulder Creek on the other. A trip to Santa Cruz for any one who wanted to see that city or take a surf bath, was also always available, so that in many respects Felton was an ideal campground, and there we went for several seasons to the great delight of the children and the enjoyment of everybody. But although possessing so many natural advantages, Felton was not the only place where a pleasant camping ground could be found and a vacation spent pleasantly. The terrible accident to the stage returning from Santa Cruz, by which several of the young people in camp lost their lives, had also the effect of making many of the campers regard the place with a sort of horror. Nevertheless it has been patronized more or less every year, and since the completion of the road to Boulder many of the old Mission campers have gone up there.

After Felton, Sunol, on the Southern Pacific railroad, became a favorite locality. The camp-ground here was along the bank of the Alameda creek, about half a mile from the station at Sunol. The advantages of this place were its comparative nearness to the city—about thirty six miles—cheapness of transportation and the fine springs of pure water on the banks of the creek. We spent several pleasant seasons here. Its principal drawbacks were lack of shade for a large camp, and cold winds that sometimes blow up the canyon.

Then we have tried Bolinas, on the coast, whose chief attraction is its surf bathing and its chief drawback the long, sometimes cold and breezy stage-ride over the mountains from San Rafael or Sausalito.

Glen Ellen, on the Sonoma Valley railroad, next attracted us. This was another very enjoyable camping-ground, and here we spent two very pleasant vacations. The ground here stretches along the west bank of Sonoma creek, is near the town and the station and made a very pleasant camping-place, so much so that some of the old campers have been going there every year since our first season there.

Some years ago a number of the "fathers

of the camp" went on a journey of discovery toward Ingrams-Cazadero, as it has since been called, on the North Pacific Coast narrow-gauge. We found many delightful places about the paper-mills—Camp Taylor, for instance, but found difficulty in getting leave to locate a camp in this neighborhood. And then again over the divide on the slope toward Russian river. Leaving the track at Moscow, we spent an hour or two at Meeker's Grove, erstwhile a rendezvous of the Bohemian Club, and probably the finest redwood grove in the country. Words fail to convey an idea of the grandeur of this magnificent grove which is only about four miles down the river from Guerneville. There is some talk of extending the Donahue broad-gauge road through or near this grove to the coast. If this will involve cutting down the trees and utilizing them for lumber, it will be indeed a pity. These grand old forest monarchs are getting thinned out every year—there are only a few of them left—and the time seems not far distant when they, with their contemporaries the Indians and the grizzlies, will live only in tradition. This would be a grand camping-ground if it were only a little more accessible.

Cazadero.

From this place we went to Cazadero via Duncan's Mills. The road between these

were steaming past Angel Island, the peaceful hamlet of a warlike colony, looking, with its picturesque church and verdant slopes, anything but belligerent. A speedy transfer from steamer to cars, and we are on our way toward San Rafael. The jocund spring is at its lustrous prime, the trees are jubilant in bud and leaf and blossom, the verdant slopes a shining sheen of purple green and gold. Tamalpais looms grim and dark, veiled in shadowy mist on the one hand, and the factory-fortress of San Quentin stands out in relief against the shining waters of the bay on the other. San Rafael looks clean and bright. Its superior hotel accommodations, mild and equable climate and contiguity to San Francisco make it a favorite suburban town. A stay of five minutes and we are steaming away through the suburbs, made shady by an exuberant growth of eucalyptus. A hard pull brings us through the first tunnel, then down the slope and round the curve to Millers, and then to Ignacio—where a change is made to the narrow gauge for those desiring to go to Sonoma or Glen Ellen. Next comes Novato, which has been mapped off into streets and town lots. Several small and scattered hamlets are passed and Petaluma is reached at 9:40.

Leaving Petaluma, we also leave the salt marsh and the odor of salt water, that place being the last inland "seaport" on the route. The low rolling hills about Petaluma are a

tooth of the circular saws, and nothing is left of the majestic trunks but their calcined stumps and deep-reaching roots. But if the trees have been removed, there remains the rich soil covered with a luxuriant growth of alfalfa, hops, fruit trees and vines, which, after all, may be an improvement on its primitive condition.

Guerneville.

A few miles more bring us to Guerneville and the end of the road. The town has just passed through its second or third baptism of fire, and hotel accommodations are scarce. We managed to get a fair meal, however, and hunting up our old friend "Bully Boy"—the name given to the engine used for hauling the logs from the choppers down to the mill—we found that he was going to make a trip into the woods, and by the kindness of the engineer got aboard and were taken up to our old camping-ground. Alas! how changed and desolate it seemed. The immense trees, with which our six weeks' sojourn among them had made us so familiar, had all been cut down. The monarch of them all had been named the "Mission tree," after our camp, and a section of it, after being exhibited in the last Mechanics' Fair, was taken to Golden Gate Park, where the curious may see and wonder at it to this day. About a quarter of a mile farther up the canyon, however, the forest is still un-

broken and there is just as good camping as where we were. After lingering around the old haunts for an hour or two, we returned to Guerneville by the same conveyance that took us out. During our stay at Guerneville we found there were one or two other places where there were excellent camping facilities nearer to the town and the river, which is always worth taking into consideration for its convenience of bathing. Without deciding anything, we returned to the city next day.

Hopland.

Hearing that there were fine camping-places near Hopland, on the extension of the San Francisco & North Pacific railroad from Cloverdale to Ukiah, we procured letters of introduction to some good people up there and determined to take a trip and make personal examination of them. And so, taking the same train we had

taken on our Guerneville trip, we started for Hopland. The road from Fultonto Cloverdale is through the same rich and beautiful country as characterized it up to that place. Arriving there about half-past eleven, we found there was time to have dinner before continuing our journey, a circumstance which we utilized for that purpose. The company is about to change this arrangement, running the train through to Ukiah without stopping and getting to Hopland soon after 12 o'clock. After taking dinner, we resumed our journey. The road from Cloverdale to Ukiah is through a much more difficult country than before it reaches that place. For a mile or two after leaving Cloverdale it is fine, however; almost a continuation of orchards and vineyards. After that, for a dozen miles or so it is through a rough and broken country, winding along up the Russian River canyon, which is here in places a veritable mountain torrent, tumbling and rushing over boulders and rapids, sometimes through gorges so confined that one could almost leap across, and again in quiet level reaches where boating would be pleasant. Before reaching Hopland, which is fifteen miles from Cloverdale, the road passes through several tunnels, one of which is through a mountain of solid rock, no timbers being needed in its construction at all. When we get to Hopland, the valley broadens out in a fine agricultural country again, which character it maintains all the rest of the way to Ukiah.

Arriving at Hopland, we found our friends willing to extend to us every courtesy, and several places were mentioned in the neighborhood as being likely to suit us for a camping-place. As we found it to be a country of very considerable distances, and as our time was somewhat limited, we con-



A CAMPING SCENE IN THE REDWOODS.

places was built for the logging trains, but as the lumber has been almost all cut out, it has been finished and ballasted for passengers and freight to Cazadero. The road after leaving Russian river, about a mile from Duncan's, winds along the banks of Austin creek, through picturesque scenery and the blackened stumps of a once magnificent forest. Along this road are many delightful spots which are utilized by small parties of campers every year, but it is too far from the city, and takes too long to go and come, to be extensively availed of by such parties as the Mission campers. This isolation makes it a favorite locality for hunters and fishermen, and for small parties who can go and stay for a few weeks, it has unrivaled attractions.

Turning with some reluctance from this vicinity, we devoted our attention to the San Francisco and North Pacific broad gauge. We remembered two years ago spending the most delightful camping vacation in all our experience in the edge of the forest just beyond where the logging train had penetrated, about three miles from Guerneville, in Hurlburt canyon, on the banks of a cool, clear mountain stream. With Guerneville as our objective point, therefore, we recently took "a day off" to revisit our old campground and look around to see if we could discover some other place as pleasant and convenient. A rather doubtful looking—as to the weather—Saturday morning, therefore at 7:40 saw us on board the good ship Tiburon with sundry rods and lines, and a various outfit for beguiling the unsuspecting trout, en route for the town of Guerneville. Threading our way through the shipping off the wharves, we were soon abreast of Alcatraz, its great guns glistening in the morning sun. Anon, on the other bow, we

rich alluvium well adapted for fruit and garden land. Four miles out we come to Penn's grove, whose fine shade of spreading oaks make it a favorite picnic ground. And now, over a dozen miles of fine level land, stretching for several miles on either side of the track, we come to Santa Rosa. In this fine tract is comprised the Page estate of several thousand acres, every rood of which is good grain and garden land, but now used mostly for stock, large herds of which are scattered here and there over its verdant pastures. Santa Rosa is one of the most enterprising towns in Northern California, as is shown by its fine new county court-house, elegant stores and private residences, new buildings going up on every hand, and the fact of its having wrested the county seat from its rival competitors. A street railroad and a numerous representation of the genus hackman, vociferous in their attentions to the alighting wayfarer, attested its pretensions to metropolitan consideration. Four and a half miles farther through a beautiful country brings us to Fulton, where we leave the main line and charge on to the accommodation train to Guerneville and the redwood region. As we steam on from Fulton, coastward, the country gets more rugged and wooded, the cultivated farms fewer and farther between, with patches of rich bottom land, around the charred remains of ancient redwoods here and there, planted in hops or alfalfa. At Green Valley we get our first glimpse of Russian river, and crossing it, speed away on its eastern bank, the railroad running parallel with it, toward Korbels. Here we come upon the deserted lumber-mill and the empty cabins of the workmen. The dense forest of redwoods once covering the entire country has been eaten up by the merciless

cluded that the easiest and most expeditious way of getting around would be to hire a team, and this we did at the Hopland hotel. In a double-seated spring wagon, therefore, and behind a pair of spanking grays, we started on our hunt. Without going over all the ground we traversed, suffice it to say that by all odds the most desirable spot we found was in a pretty canyon covered with a growth of manzanita, with a clear mountain rivulet, promising good water for domestic purposes, and abundant room and shade for as large a camp as we should be likely to have. The place is about a mile from the railroad station and store of West Hopland, and about a mile and three-quarters from the old town and hotel. The surroundings are all that could be desired as regards scenery. The canyon is at the foot of a conical mountain called Duncan's Peak (so named after one of the oldest settlers there), whose towering shapely form seems omnipresent throughout this whole section. On a slope of a spur of this mountain, and within about a quarter of a mile of the proposed campground, are Duncan's Springs, with their picturesque cottages perched at convenient places on the hillside. These springs, or the most notable of them, are two in number, the first of which, called the Bartlett spring, because, in its ingredients and curative properties it is said to be similar to and equally as good as the Bartlett water—comes welling out of a fissure in the rock into a stone basin as pure as crystal and of excellent medicinal quality. This water is availed of for both drinking and bathing, being piped into a reservoir and from there to the bath-house. The other, a few hundred feet distant, farther up the side of the mountain, is a pure soda spring, sparkling and effervescing as it bubbles out of the rocks. No improvements, except the cottages, which have been put up to rent to summer visitors, have been made here, and the waters are free to all comers. From the side of the hill near the springs a magnificent view may be obtained of the valley around Hopland, beyond which are the range of hills dividing Lake and Mendocino counties. For bathing and swimming, Russian river is a little over a mile distant, and if the veracity of the doctor, who regaled us with fishing stories that night as we gathered round the big open fire at the hotel, is to be relied on, there is good fishing to be got by going a few miles toward the headwaters of a number of creeks that abound here. Next morning our kind entertainers at the hotel hitched up and took us for another drive up to the springs and a few miles through the valley, and our impression of the day before, as to its desirability as a pleasant place to spend a summer vacation, was confirmed, and several of the party made up their minds to come here.

Inverness.

In order that we might be able to estimate and report truthfully and comprehensively on as many places as were eligible and convenient to visit, we accepted the invitation of C. H. Street & Co. to join a party of friends to visit Inverness, the site of a newly-projected town and colony on the western slope of Tomales bay. We therefore took the Saucelito ferry-boat, and in company with a very pleasant party of ladies and gentlemen, sped over to that most picturesque of our bay towns, where we boarded the cars of the North Pacific narrow-gauge road. Skirting the bay for a short distance and crossing an arm of Richardson's bay, we speed along past Blithedale, Corte Madera, Larkspur and Ross valley to San Anselmo. Here we make a stop for a passing train, then away again, onward and upward past Fairfax, in and out along the slopes of the hills, over a piece of the most picturesque railroad climbing in the State, through the tunnel and summit of White's Hill, then down the western slope toward Tomales bay, past San Geronimo, Lagunitas, Camp Taylor and Tocaloma to Point Reyes, where we disembark and take the waiting teams for our point of destination. A fine drive of four miles over a good road, with the shallow waters of the bay on one side and the thickly wooded hills on the other, brings us to the site of Inverness. Driving in to the left, along a road which has been made through the woods, by the side of a sparkling mountain stream of pure water, we immediately come upon a natural meadow, where tables for lunch have been improvised under the spreading branches of oak, sycamore and laurel trees. Along the sides of this creek and the gentle slope of the adjoining hills, has been surveyed and staked off the new candidate for municipal favor, Inverness. On a fine plateau, a stone's throw from where we lunch, is the site of a fine hotel, the plans of which are already drawn, and certainly a more beautiful site for the purpose would be hard to find. Surrounded by magnificently wooded hills on one side, and commanding a fine view of Tomales bay on the other, with its suggestions of

bathing, boating, fishing, etc., it would seem to combine all that is desirable for a country and seaside resort. The land is a part of the McShafter ranch, and it is the desire of the proprietor and agents to found a town and colony under Presbyterian auspices. To aid in carrying out this idea, they propose to donate 100 acres of the best land and \$25,000 in money toward establishing a college of that denomination. We hope and believe their expectations will be realized, and that a few years will see these quiet woodland scenes transformed into a thriving university town. As a camping-place it has excellent advantages, fine fresh water for domestic purposes, sea bathing in the bay, plenty of shade for the tents and fuel for cooking and camp-fires, all of which are offered free to the campers. The country abounds in pleasant walks and drives, while from the top of Mount Vision, about a mile distant, may be obtained one of the grandest and most diversified views in the State. A good many campers have already decided to locate here, and some with a view to purchasing a permanent summer resort.

Camp Taylor.

We next turned our attention to Camp Taylor, which we had passed on the road. This place is about 30 miles from San Francisco, and has long been established as a favorite resort for summer sojourners from the city. The surroundings are beautiful. Here the giant redwoods tower up hundreds of feet in all their primitive grandeur, while the clear waters of the Lagunitas or Paper mill creek offer every facility for bathing, boating, etc. The proprietors have entirely discontinued picnics of every kind, and with all its advantages of nearness to the city, being close to a base of supplies, cheap transportation for passengers and freight, pleasant climate, convenience of going and coming, Saturday evening and Monday morning, a large camp there is already assured, and the hotel and cottages full.

There are undoubtedly many other places perhaps equally advantageous for camping-places, but we have already drawn this article out to greater length than we intended, and must defer a description of them to the future.

Coop and Kennel at Los Angeles.

EDITORS PRESS:—The people in Southern California have long felt that it was too much of a good thing to try to help a poultry show in San Francisco—not that they wished it any ill, but simply from the fact that it was too far away, and cost too much to go back and forth; and yet the shows have borne fruit in this part of the State, for I think that if the money sent by the people in Southern California to northern breeders for stock and eggs were put in one pile, the large amount would be a surprise to many.

In one of your recent issues, you published a list of officers of the Los Angeles County Poultry Association, which is by no means a dead one, but expects to hold a poultry show this month (24th to 29th inclusive). The officers and members mean business, and are willing to work, and that together, for a good show; and to do that they have no time to waste on pulling the personal rackets; they are as good a set of men and women, numbering over 100, as could well be drawn together.

The show is to be held in Hazard's pavilion, Los Angeles, the largest hall in this part of the State, which will give plenty of room to look in, and the prospect is good for large entries.

In connection with the exhibition of poultry, pigeons and pet stock, are to be shown incubators and brooders; and it will hardly be to the credit of any manufacturers of these articles on this coast to be left out, if they wish patronage in this part of the State.

The Southern California Kennel Club will also have a bench show at the same time and place, one entrance fee admitting to both exhibitions.

Any of your readers who may wish to exhibit and who have not received other knowledge of the show, should apply at once to Mr. J. D. Mercer, secretary, 12 West First street, Los Angeles, Cal., for entry blanks, as the entries close Monday, June 17th.

Mr. W. H. H. Jones, an old time feather-legs, will be superintendent, and Mr. A. F. Cooper of Homer City, Penn., the judge.

Now if any one has an honest doubt in his mind whether or not this part of the State is alive, let him come and see; but come and see the show anyhow. I think it will be worth while.

I wish the editors could step in upon us, enjoy the proceedings and carry back a report of the show. They would meet with a warm reception. E. C. CLAPP.

Pasadena, June 1, 1889.

[We understand that Wells, Fargo & Co. will return free of charge, to the point of shipment, stock on which full rates to the show have been paid, provided it has not changed hands meanwhile. The management seems sanguine regarding the display, which they purpose to make a credit to Southern California.—EDS. PRESS.]

Books and Authors.

BY C. L. B.

"TRAVELERS AND OUTLAWS," Episodes in American History. By Thos. Wentworth Higginson, author of "Outdoor Papers," "Oldport Days," etc. Boston: Lee & Shepard, publishers. Samuel Carson & Co., San Francisco. One finds here not altogether pleasant reading because of the horrors treated in the slave insurrections of the South, but the book contains much of interest, and is, it is needless to say, considering its author, well written.

"BIDING HIS TIME; or, Andrew Hapnell's Fortune." By J. T. Trowbridge. Boston: Lee & Shepard, publishers. San Francisco: Samuel Carson & Co. In the trials and adventures of Andrew Hapnell is given a strong argument in favor of patient industry, helping others, doing always the present duty, and biding your time, which precepts followed by the youthful hero of the story bring him to a happy solution of his difficulties. Those familiar with the many other popular tales by this noted author in boy literature will heartily welcome in book form this equally entertaining story of adventure, which recently appeared as a serial in *Youth's Companion*.

"VIEWS A-FOOT, or Europe seen with Knapsack and Staff." By Bayard Taylor. With two portraits, and a preface by N. P. Willis. New York: John B. Alden. In this attractive volume of travel one finds Mr. Taylor a most entertaining *compagnon de voyage*; the various scenes and objects of interest in Ireland, Scotland, England, Germany, Italy and France being presented so vividly that they become realities indeed. The strong and picturesque prose descriptions are here and there interspersed with bits of original and well-selected verse which give a pleasing variety and added charm to the volume, which is altogether one of the most attractive books of travel ever published.

From the "Cambridge Series of English Classics," published by Lee & Shepard, Boston, and for sale by Samuel Carson & Co. of San Francisco, come "Chapters from Jane Austen," edited by Oscar Fay Adams, author of "Hand-Books of English and American Authors and Post-Laureate Idylls," and "Readings from the Waverley Novels," edited for school and home by Albert F. Blaisdell, A. M., author of "The Study of the English Classics," etc.

In "Chapters from Jane Austen" are given representative selections from her six principal novels: "Pride and Prejudice," "Sense and Sensibility," "Northanger Abbey," "Mansfield Park," "Emma," and "Persuasion." To the readers and admirers of Jane Austen this little volume will be of special value as a book of reference for recalling the plots and principal characters of this gifted author's most noted works of fiction.

In "Readings from the Waverley Novels" we have another most valuable reference-book in admirably arranged selections from those famous novels of the great Scott, which are too widely and familiarly known to require any description in a book notice, the plot of each story being briefly given, together with a list and explanation of the principal characters who figure therein.

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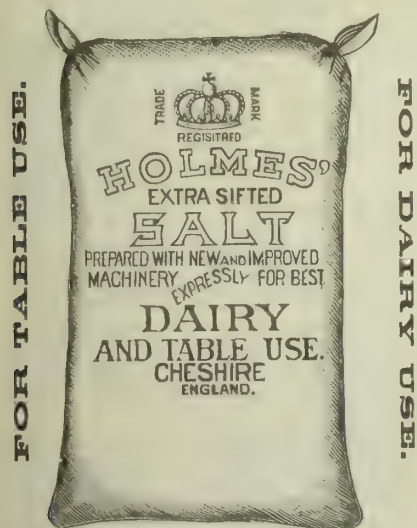
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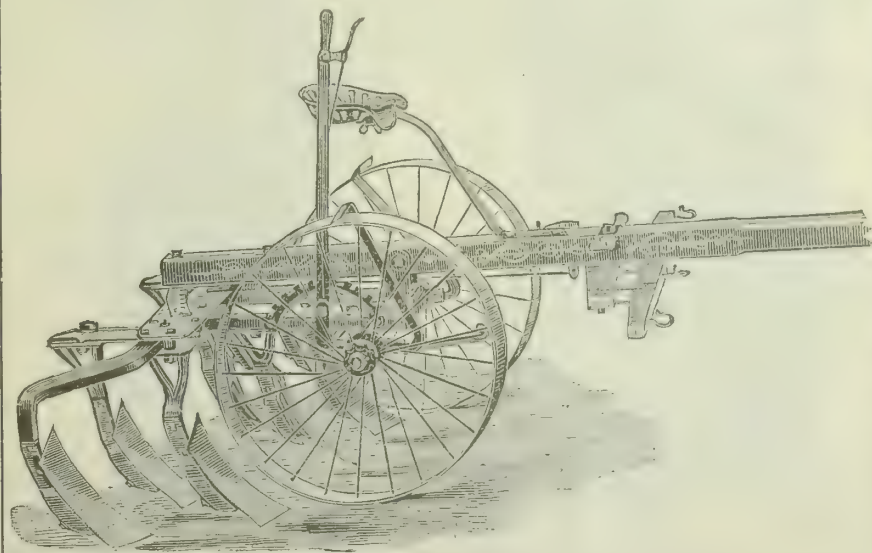


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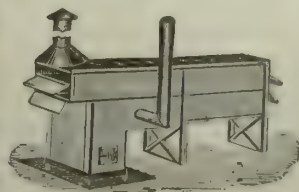


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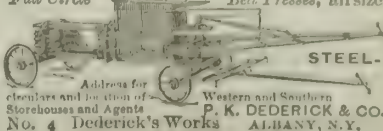
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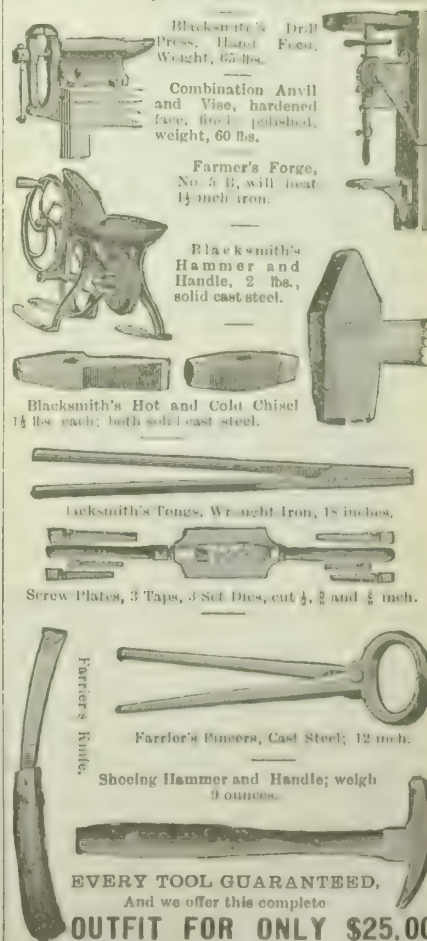
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Fashion Notes.

Ladies' Straw Turban.

FIG. 1.—The square turban here pictured is of dark-green straw, its rolling brim being overlaid with fancy straw of the same color. The trimming is at the back; two loops of green moire ribbon come forward on the



Fig. 1.—LADIES' STRAW TURBAN.

crown, and just back of them is disposed a mass of lilies-of-the-valley; then come more loops of ribbon, and last of all a strap secured neatly over the brim. The hat is to be placed squarely on the head, and the decoration shows well from the front. A blue straw in the same style is garnitured with pink roses instead of lilies, and a brown hat shows a great bunch of buttercups.

Girls' La Tosca Costume.

FIG. 2.—Green serge and green velvet of a darker shade are here associated, with trimmings of white silk accordion-plaiting, velvet and buttons. The skirt, which is in the usual round style, is trimmed in front



Fig. 2.—GIRLS' LA TOSCA COSTUME.

with white silk laid in accordion-plaits. The top of the skirt is gathered and joined to the lower edge of the round, sleeveless body, the shaping of which is effected by shoulder, under-arm and side-back seams. Upon the front of the waist is arranged a trimming of accordion-plaited white silk, which is included in the joining of the body and skirt. The neck is neatly finished by a high-standing collar, to the upper edge of which is seamed a dainty frill.

The over-dress is in coat style, and its shaping is performed by under-arm and side-back gores and a center seam. The fronts are turned back in velvet-faced revers that are pointed at the shoulders, and below the revers at each side three velvet buttons are ornamentally placed. The accordion plaiting on the body is nicely displayed by the flaring fronts of the coat, and is confined at the waist by a gathered girdle of velvet. The skirt of the coat is gathered quite full at the top, and finished at the bottom with a

deep hem; it is sewed firmly to the body and below the sewing falls in graceful folds to the edge of the skirt. The shirt sleeves are each completed at the wrist with a cuff of velvet and serge combined.

Ladies' Costume.

FIG. 3.—The costume is here shown developed in French-gray camel's hair, corded silk in a darker shade, silver-gray India silk, and Persian bands showing delicate shades of old-rose and olive-green interwoven with a gold thread over white; and the garnitures consist of corded silk, Persian bands and large smoked-pearl buttons. Over the front-gore of the standard foundation-skirt is arranged a drapery of India silk that falls in soft folds from the gathered upper edge to the foot and is decorated near the lower edge with a broad Persian band. Overlapping this drapery, and covering the side-gores, are straight panels that are each plait-

two buttons, and its front edge is cut away for a short distance above the lower edge. Under-arm, side and side-back seams and a well-curved center seam complete the adjustment of the over-dress; and the fullness at the termination of the side-back and center seams is underfolded to form deep plaits in the skirt of the coat that extend over the back-breadth to the lower edge. The sleeves, which are in coat-sleeve shape, are slightly gathered at the tops and trimmed at the wrists with pointed cuff-facings of corded silk; and a standing collar of silk is joined to the neck.

Henrietta cloth, serge, cashmere, foule, challis, vailing, sateen, foulard and other plain or fancy weaves are suitable for such costumes, which will develop effectively in combinations of plain and figured India, China and Japanese silks, challies and satens, or of textures similar to those here pictured. Bead or braid passementerie, ap-



Fig. 3.—LADIES' COSTUME.

ed at the top and trimmed with a band of corded silk that is turned under in a loop at its lower end and ornamented near the top with five buttons. The fashionable appearance of the costume will be insured by the wearing of a bustle, though reeds may be introduced with equally stylish effect.

The over-dress, which is a Directoire coat, has closely fitted fronts that are closed at the center and faced in V shape below the neck with the Persian band. Crossed over the fronts in the characteristic way are surplice ornaments corresponding with the drapery below; and a girdle of Persian band that is pointed at the top marks the waist-line and adds to the effective arrangement of colors on the front. The jacket fronts are fitted by single bust darts and are rolled back above the bust in broad revers that are faced with dark-gray, making a pretty framing for the dainty colors disclosed between them. Each front is ornamented below the point of the revers with

plique embroidery and fancy galloons, braids and ribbons are effective garnitures.

IT DOES SOUND SO!—The South Riverside Bee publishes this story: "I noticed a bunch of barley a day or two ago that seemed to spring from one root, and I was curious enough to pull it up to see. Finding that it was indeed a single stool, its unusual size made me curious to know how many stalks sprang from it, and cutting them off with my knife I carefully counted them and found there were just 434 of them." The remark is added that "that sounds incredible"—which we do not feel prepared to dispute.

POPPIES ON EMBANKMENTS.—It has been discovered that the planting of poppies on embankments proves a great protection to such works. They form a network of roots that can be exterminated only at the expense of great difficulty. Eminent French engineers are said to have made successful experiments in this direction.

GOOD HEALTH.

Buttermilk as a Medicine.

With the rapid growth of reconstructive medicine comes opportunely the reintroduction of old and well-known domestic remedies, among which buttermilk demands a respectable place.

A young lady patient of the writer was suffering from a severe consumptive cough. None of the usual anti-spasmodics, expectorants, etc., seemed to do any good, simply because her stomach was too weak to bear enough medicine to effect the purpose. Finally I suggested to her mother the use of hot buttermilk. It was adopted at once. Her first night's experience was one of comparative freedom from cough and pain, and a pleasant slumber for hours. It was continued for a long time with an unvarying relief of all her previous distressing symptoms, and an almost perfect freedom from cough for several hours after each draught of the hot buttermilk.

Lingering at one time for weeks from an attack of congestive fever, dosed with calomel and quinine almost beyond endurance, the writer began to desire buttermilk to drink. The physician "didn't believe in humoring the whims of patients," as he expressed it; besides, he contended that a single drink of the obnoxious fluid might produce death, as acids and calomel were incompatible dwellers in the same stomach. But I was a good persuader and my mother was a susceptible subject. The buttermilk "fresh from the churn" was procured and drank. No evil resulted; instead came perspiration and speedy recovery.—Dr. S. F. Landrey.

Bed Sores.

Mrs. C. F. M. sends the following from Pomona for the benefit of the bed-ridden: The white of an egg well beaten and spread upon a fine, soft cloth, renewing with fresh applications two or three times a day and continued until all redness of the skin disappears, will prevent bed sores, and I believe will cure them even in their worst stages. It is well to keep a close watch, and if the skin begins to look red, make the application.

DEGENERATION OF THE HUMAN TEETH.—The law of retardation exhibits itself in the teeth of the higher races of mankind in a highly inconvenient manner. The greatly developed brain requires all the available room in the skull; there is no space left for the attachment of muscles of a powerful jaw. There is consequently no room left for either the wisdom teeth or the upper incisors; the wisdom teeth are retarded, often cause great pain, and decay early. The second incisors appear in startling and unexpected places, and often (in America especially) do not cut the gum at all. Prof. Cope says that American dentists have observed that the third molar teeth (wisdom teeth) are in natives of the United States very liable to imperfect growth or suppression, and to a degree entirely unknown among savage or even more civilized races. The same suppression has been observed in the outer pair of superior incisors. This is owing not only to a reduction in the size of the arches of the jaw, but to successively prolonged delay in the appearance of the teeth. In the same way men and the man-like apes have fewer teeth than the lower monkeys, and these again fewer than the insectivorous mammals to which they are most nearly allied. When this difference in dentition has been established, civilized man may claim to place himself in a new species, apart from low savages as well as from high apes.—Popular Science Monthly.

ORANGES FOR HEALTH.—While the orange was so highly esteemed by the ancients for its medicinal qualities, it is surprising how little attention the present generation gives to the many virtues included in this little golden ball of fruit. A prominent physician once remarked that were his patients to eat an orange or two every morning they would require but little medical attention; for throughout the entire range of fruits that have attracted the attention of the medical profession as a means of alleviating many of the ills of mankind, there has been found none has so many diversified uses as the luscious orange, particularly in cases of low fevers and malarial complaint, and it should more largely take the place of unpleasant drugs so extensively used, to the great disgust of the patient. No fruit compares in cheapness with the beautiful and luscious orange, and particularly so now that our own country is raising the finest oranges in the world, the fruit selling at a price within the reach of the most moderate purse.—American Grocer.

A PRECIOUS PRESCRIPTION.—Dr. Henry Gibbons, Jr., recently closed a lecture at the Cooper Medical College with the following valuable advice: In conclusion, let me reveal to you a great professional secret, through which you will be able to diminish your doctors' bills at least one-half. It is this: Be cheerful; avoid despondent thoughts and gloomy forebodings; your labor will be light in proportion as your spirit is in it, or it may be magnified to corresponding proportions. Make exercise your nurse, diet your apothecary, and cheerfulness your physician, and the days of the years of your life will be better and your pockets will be fuller.

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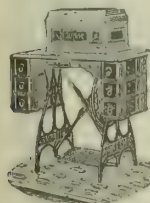
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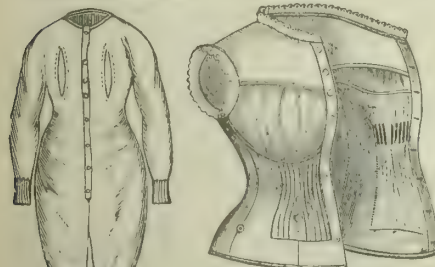


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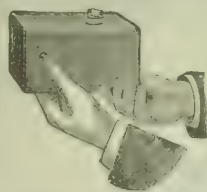
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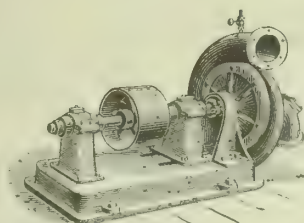
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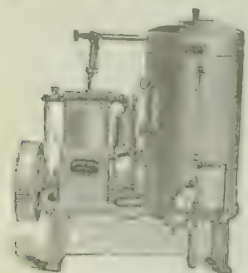
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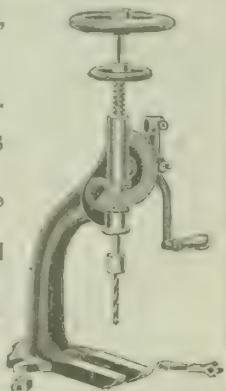
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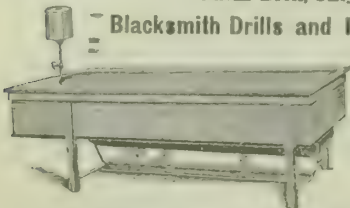
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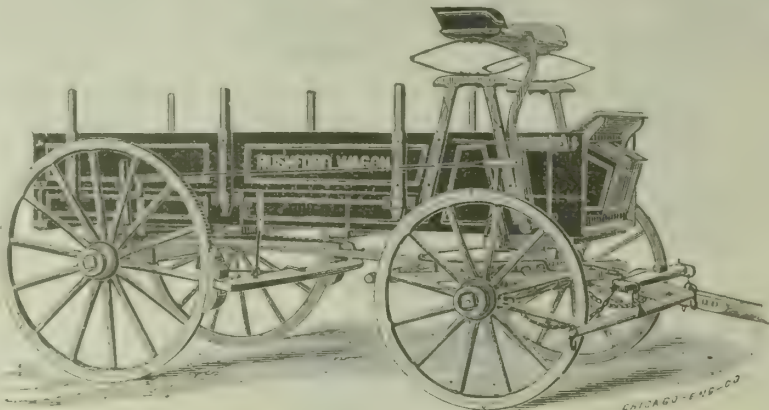
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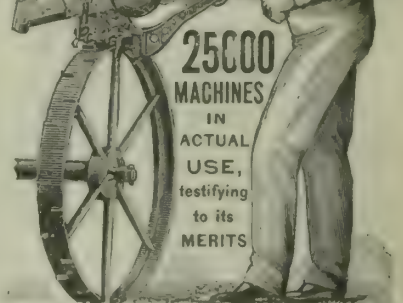
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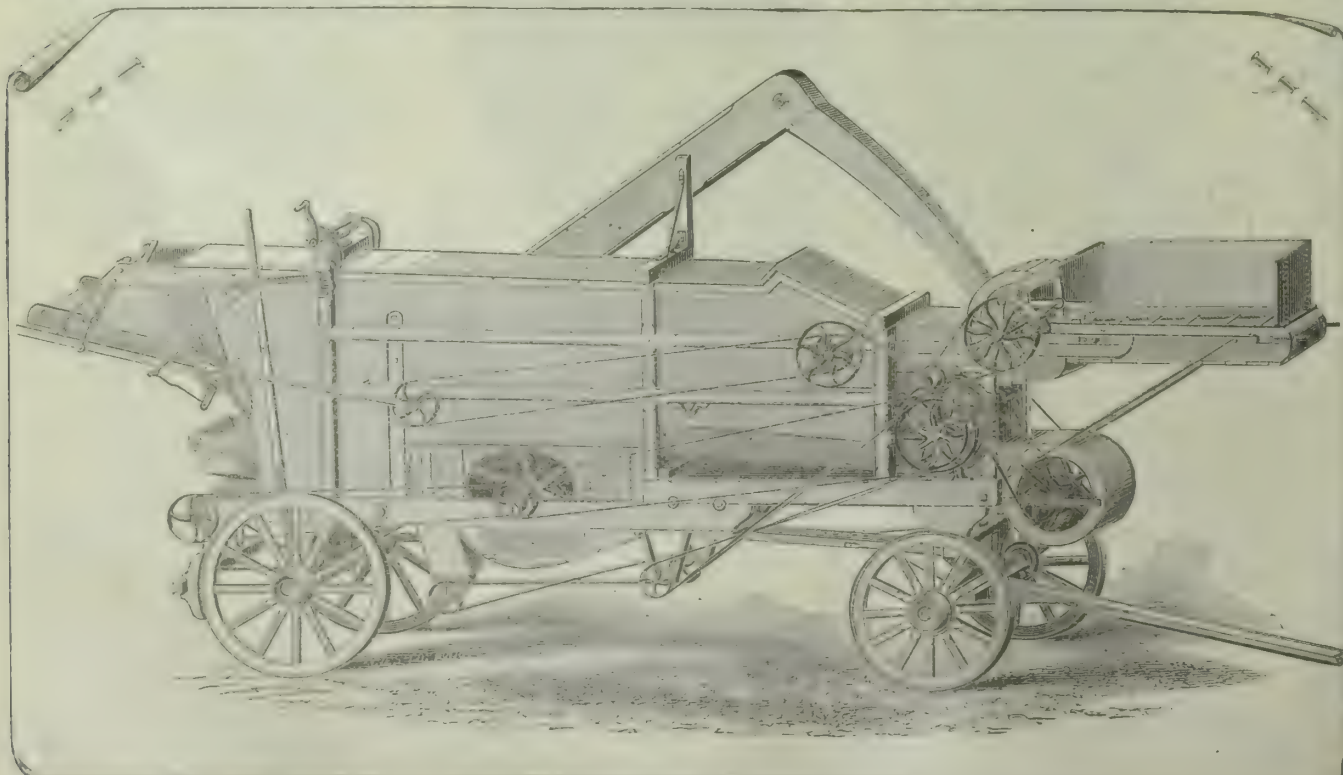
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Dried Fruit Around the Horn.

EDITORS PRESS:—My attention was drawn to Mr. Coates' essay on "Unprincipled Fruit-Packing," which appeared in the Rural of June 1st. Mr. Leonard Coates does not seem to have a very favorable opinion of sun-dried fruit and the process it undergoes before and after being dried, viz.: Sulphuring and dipping in scalding water before packing. I will relate, in as few words as possible, how a box of sun-dried fruit, sulphured before drying and dipped in boiling water, in which there was a little glycerine mixed, before packing, turned out on its arrival in England via Cape Horn, after a passage of just six months. Let me here mention that the fruit had been dried three months before forwarding it. I got a pear-box, divided it into three compartments, lining them with oiled paper. In one compartment I put dried apricots, the center one almonds, and the third dried peaches. After pressing the fruit in thoroughly, I securely nailed the lid on and covered the box with duck, which I sewed on, wrapping the whole in brown paper. I have just received a letter from my mother and father, to whom I sent the fruit, to give them some idea of the kind and quality of fruit grown in California, in which they stated they had received the box. On opening it they found the fruit in splendid condition, there only being one here and there a little rotten; they were also highly pleased with the flavor of the fruit. Considering the sort of box it was packed in and the journey it underwent, I think this a very creditable report for sulphured, sun-dried and dipped fruit.

The fruit mentioned above was grown and dried on Messrs. Weinstock & Lubin's ranch, by whom I was employed at the time. In conclusion I may add that, in fruit, as in everything else, there are two ways of preparing it, viz., a right and a wrong, and I think judicious handling of fruit, which is going to be sun-dried by those who cannot afford an evaporator, can turn out a box to please the most fastidious person.

Hoping I have not trespassed too much on your valuable time, I have the pleasure of remaining

F. F.
Diamond Springs, El Dorado Co.

California Products at Chicago.

CHICAGO, June 5.—California Fruits.—Cherries are a shade firmer; sales are made at \$1.40@1.75 for 10-lb boxes; Peaches are quiet and easy at \$1.75@2 for 20-lb cases; Apricots are only in moderate supply and steady at \$2@2.75 for 20-lb cases; Plums are on the market and slow at \$1.75@2 for 20-lb cases.

Oranges are meeting with fair demand with prices as heretofore, and the supply is rather small. Riverside, 4¢ box, \$4.25@4.50; do, undesirable sizes, 3¢ @ 4; St Michael, paper rind, \$4.50@6; San Gabriel, 2¢@4; Duarte, 2.75@3.25; Los Angeles, \$2.25@2.75.

California Dried Fruits.—Trade is fair in peaches and prices are firm owing to small supply. Choice bright apricots are in demand and firm and plums are fair sale; there were no changes from last quotations.

Hops continue to sell fairly well; the demand, in fact, is good as compared with the supply; a firm feeling is maintained. Choice Washington Territory and Oregon, 24@25¢ lb.; Pacific Coast, prime to choice, 19@22¢.

Beans are still ruling firm, being in very fair request, and their demand appears all the better on account of there being only a small quantity of choice and desirable beans on hand. California Lima beans, 5¢@6¢ lb.

HEREFORDS FOR SALE.—Henry Vaughan, the indelible and persistent importer of thoroughbred cattle, is among us once more. On his last trip from the East he brought in one consignment of 15 head of the highest type registered thoroughbred Holsteins, which he immediately on arrival sold to Mr. Andrew Smith of Redwood City, and eight head of registered thoroughbred Hereford bulls; the latter he offers for sale at quite reasonable rates, and as cattlemen who have seen them pronounce them to be a very superior lot, he will no doubt have little difficulty in quickly disposing of the gentle and strong-blooded "white faces." Killip & Co. will furnish any information desired regarding them.

SNELL SEMINARY commencement exercises were held in the 1st Congregational Church, at Oakland, on the evening of Memorial Day. Thirteen young ladies graduated. Their essays, the musical selections and a brief address by Rev. Dr. Barrows, had an audience that outnumbered the seating accommodations. On Friday evening the alumnae gave a pleasant reception at the school, with music, dancing and refreshments. The class motto, "Character, not Reputation," had a conspicuous place among the decorations.

THE PANAMA CANAL SCHEME dies hard. Report says that the French Government will revive the work, a measure that, under the Monroe doctrine, the United States will not allow. A heavy subsidy to a private corporation to complete the canal, however, would meet with no objection. The old corporation is a bursted concern, and dead, but the works instituted by De Lesseps are valuable, and an effort to utilize them will undoubtedly be made as soon as the necessary capital and enterprise can be combined.

Preferred Poultry.

Following are the regular awards on poultry at the exhibition lately held here in connection with the bench show. There were also given a number of special prizes, which we do not attempt to enumerate:

LIGHT BRAHMAS.—1st & 3d breeding pen, J. J. Jones, Martinez; 1st & 3d pairs & 2d b. pen, Jno. McFarling, Oakland; 2d pr, Pac. Incubator Co., Oakland.

DARK BRAHMAS.—1st pr & 1st b. pen, Pac. Incub. Co.

BLACK LANGSHANS.—1st b. pen, J. McFarling; 1st pr, H. G. Keesling, San Jose.

WHITE LANGSHANS.—1st & 2d prs chicks, O. J. Albee, Lawrence.

PARTRIDGE COCHINS.—1st b. pen, 1st, 2d & 3d prs, E. H. Freeman, Santa Clara; 2d & 3d prs chicks, O. J. Albee; 1st pr chicks, Pac. Incub. Co.

BUFF COCHINS.—1st, Pac. Incub. Co.; 2d & 3d, J. McFarling.

WHITE COCHINS.—1st, Pac. Incub. Co.

DORKINGS.—Silver gray—1st pr & 1st b. pen, W. G. Ellis, Oakland; 1st pr, 2d b. pen & 1st pr colored, Pac. Incub. Co.

HAMBURG.—1st b. pen & 1st pr silver spangled, 1st b. pen & 1st pr golden spangled, Pac. Incub. Co.

WHITE LEGHORNS.—1st b. pen & 2d pr, J. J. Jones; 3d b. pen, E. H. Freeman; 3d pr, Pac. Incub. Co.; 2d b. pen & 1st pr, Jno. McFarling.

BLACK MINORCAS.—1st b. pen & 1st pr, Geo. B. Nugent, College Park.

BLACK LEGHORNS.—1st b. pen, 1st & 2d pr, W. G. Ellis.

BROWN LEGHORNS.—2d pr, E. H. Freeman; 1st b. pen, O. J. Albee; 2d b. pen, J. McFarling; 1st pr, Pac. Incub. Co.

FRENCH HOUDANS.—1st b. pen & 2d pr, J. J. Jones; 1st pr & 2d b. pen, Pac. Incub. Co.

POLISH.—1st pr & 1st b. pen, white crested black, Pac. Incub. Co.

GAME.—1st b. pen & 1st pr, Pac. Incub. Co.

GAME BANTAMS.—1st pr red Pyle, 1st pr Duckwing, 1st pr & 1st b. pen blk African, 1st b. pen Royal Pekin, L. F. Cockroft, Prospect Heights, Oakland; 1st b. pen, 1st & 2d pr BB red fls, Geo. B. Nugent, College Park; 3d pr BB red Game, Pac. Incub. Co.

PEKIN BANTAMS.—2d b. pen & 2d pr, J. J. Jones; 1st pr, Golden Sebright, Pac. Incub. Co.

BLACK JAVAS.—1st b. pen & 1st pr fls, J. J. Jones.

WHITE PLYMOUTH ROCKS.—1st b. pen, Chas. R. Harker, Santa Clara; 1st pr chicks, E. H. Freeman, Santa Clara; 1st & 2d pr, Pac. Incub. Co.

AMERICAN DOMINQUES.—1st pr Rose Comb fls, P. Perrine, Alameda.

GOLDEN WYANDOTTES.—1st trio, Geo. H. Croley, S. F.; 2d pr chicks, H. G. Keesling, San Jose.

AMERICAN BARRED PLYMOUTH ROCKS.—1st b. pen, 1st & 2d pr fls, E. H. Freeman; 2d pr chicks, O. J. Albee; 2d b. pen, J. McFarling; 1st pr chicks, Pac. Incub. Co.; 3d pr fls, J. H. G. Keesling.

SILVER-LACED WYANDOTTES.—1st & 2d pr fls, Jas. Mitchell, St. Helena; 2d b. pen, E. H. Freeman; 3d b. pen & 2d pr, O. J. Albee; 1st b. pen & 3d pr fls, J. McFarling; 1st & 3d pr chicks, J. M. Garrison, Forest Grove; 2d b. pen, Pac. Incub. Co.

WHITE WYANDOTTES.—1st b. pen & 1st pr chicks, E. H. Freeman; 1st pr fls & 2d pr chicks, O. J. Albee; 1st b. pen, 2d & 3d pr, Pac. Incub. Co.

MISCELLANEOUS.—1st pr Mino Hikes, Pac. Incub. Co.

TURKEYS.—1st pr bronze, Pac. Incub. Co.

DUCKS.—1st & 2d pr Rouen, Pac. Incub. Co.

GEES.—1st pr Toulouse, Pac. Incub. Co.

Reduced Rates to Pacific Grove.

The Southern Pacific will give one and one-third rates to all who wish to attend the Summer School of Methods of the W. C. T. U. at Pacific Grove June 20th to 23d. The tickets are good for ten days, from June 20th to 30th, thus giving opportunity for all to stay to the State Teachers' and State Sunday-School Associations, which convene immediately afterward. As special attention will be given at the School of Methods to scientific temperance instruction in our public schools, it is hoped that large numbers of the teachers will come four days earlier and attend. One does not need to be a member of the W. C. T. U. to use the certificates, the only provision being that the holder attend the conference, that the secretary may so certify.

The delights of Pacific Grove as a camping-ground are too well known to need a word of praise, and no doubt great throngs will combine physical rest with intellectual culture and be present.

Send for certificates to M. G. C. Edholm, superintendent railroad rates and official reporter W. C. T. U., 519 Eighth street, Oakland.

THE BLESSED CIGARETTE.—The loss by the fire at Reno, Nev., was about \$250,000, half covered by insurance. The Gazette says: Some members of the Young Men's Institute were in the theater Saturday evening rehearsing, and it is supposed that some one threw a lighted cigarette into a box of sawdust, that the fire was smoldering all night Saturday and all day Sunday, and that when it broke out the immense structure was all on fire on the inside and broke out the entire length of the roof simultaneously.

It is said that 10,000 sheep perished in the last rainstorm in Walla Walla county, W. T.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING MAY 21, 1889.

403,728.—CABLE RAILWAY CONDUIT MOLD—Ira Bishop, S. F.

403,738.—BAILING-PRESS—T. J. Corning, San Jose, Cal.

403,877.—WELL BORING OR DRILLING APPARATUS—J. E. Day, S. F.

403,656.—HINGED HANDLE—J. Gerstle, Portland, Oregon.

403,762.—EXCAVATOR—Isaac P. Lambing, Ione, Cal.

403,766.—SLEIGH—Felix J. Mette, Ruby Hill, Nevada.

403,602.—STEP LADDER—J. A. Neill, East Portland, Oregon.

403,783.—WRIST PROTECTOR—C. L. Smart, Los Angeles, Cal.

403,784.—CAN HEADING MACHINE—Wm. H. Smyth, Berkeley, Cal.

403,786.—ELECTRIC RAILWAY—F. M. Speed, S. F.

403,795.—SCHOOL DESK—Chas. B. Towle, S. F.

403,796.—SCHOOL DESK—Chas. B. Towle, S. F.

403,799.—SURFACE CONDENSER—E. W. Tucker, S. F.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

\$750 For a Boar.

Andrew Smith of Redwood City, the noted Berkshire breeder, whose herd ranks with any in the United States, has just bought from N. H. Gentry, Sedalia, Missouri, his sweepstakes boar Model Duke, "the best boar in America," acknowledged so to be by the most expert judges of Berkshires. Mr. Smith will breed Model Duke to the offspring of his famous sweepstakes boar Redwood Duke and prize boars Peplow, Hercules and Commodore, from his imported Sallie and Stumpey sows.

Mr. Smith says the "best in America" is none too good for his herd, and while \$750 is, perhaps, the highest price ever paid for a boar in the United States, he is well pleased with his purchase, as Model Duke is the kind of a boar he has been looking for.

He has sold his fine young prize boar, Hercules 21045, sired by Redwood Duke 13368, dam imported Redwood Sallie 13658, to R. C. Kells of Yuba City. This fine young pig promises when fully matured to be one of the best boars on this coast.

Horses and Holsteins.

Mr. Geo. E. Brown of Aurora, Ill., sailed from New York for England, Saturday, May 25th, on the Cunard S. S. "Etruria," for the purpose of bringing over his annual importation of Cleveland Bays and English Shires.

Messrs. Brown & Co. have for a number of years imported only yearlings, which they mature on their farms near Aurora, therefore having to offer only fully acclimated stallions which are raised in a plain, practical way and not forced for the sake of rapid growth. They expect to import this year somewhat larger than usual, and to make room for the increased number will give unusual bargains in Holstein cattle, of which they have a large number. Their herd is too well known to need comments. Parties thinking of purchasing should not fail to avail themselves of this chance to procure foundation stock at very favorable prices.

COMBINED HARVESTER.—John Driver, well known to thrashermen throughout the State, announces in our advertising columns that he has one of his improved combined harvesters not yet engaged which is ready for a purchaser. Mr. Driver now has the old Sweepstake shop at San Leandro, and is building machines on his own account.

ORANGE CULTURE IN CALIFORNIA.

Now that the interest in the culture of the orange is extending so as to embrace nearly all parts of the State, a book giving the results of experience in parts of the State where the growth of the fruit has been longest pursued will be found of wide usefulness.

"Orange Culture in California" was written by Thos. A. Garey of Los Angeles, after many years of practical experience and observation in the growth of the fruit. It is a well-printed hand-book of 196 pages, and treats of nursery practice, planting of orange orchards, cultivation and irrigation, pruning, estimates of cost of plantations, best varieties, etc.

The book is sent post-paid at the reduced price of 75 cents per copy, in cloth binding. Address Dewey & Co., Publishers "Pacific Rural Press," 220 Market St., S. F.

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- 28.—What Every One Should Know; a cyclopedia of valuable information; 610 pp.; cloth; (full price \$1).....50
- 29.—Knitting and Crochet, by Jennie June; 144 pp., 200 illustrations.....25
- 30.—Needle Work, by Jennie June; 12 pp., 200 illustrations.....25
- 31.—Ladies' Fancy Work, by Jennie June; 162 pp., 700 illustrations.....25
- 32.—The Way to do Magic; illustrated, 60 pp.....10
- 33.—The Taxidermist's Manual; illustrated, 64 pp.....10
- 34.—A Dictionary of American Politics; comprising accounts of political parties, measures and men, and explanations of the Constitution, divisions and practical workings of the Government, together with political phrases, familiar names of persons and places, noteworthy sayings, etc., by Everett Brown and Albert Strauss (Full price \$1).....50

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EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

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SEASON OF 1889.

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Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and the dams of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcom, a son of Virginian. Second dam by Marshal Noy; he by Imp. Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 406, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brigoli, a son of Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:28. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Rysdyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trickett, 2:24, and Stamboul, 2:14; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:03, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, 6th heat, 2:28.

First dam Kate G (the dam of H. B. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.

Vol. 1, American C. B. S. H.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (189).

First dam by Sportman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. U.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" case, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire, beating 20 others.

First dam Whalebone (555), first premium Gt. York-shire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 163 hands high, weight 1500 pounds, with superior style and action.

TERMS, \$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 247; he by Master George 203, by King George 189; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teesdale, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

The Standard Bred and Cleveland Bay Stallions

Will serve Mares the present season, commencing Feb. 1st and ending Sept. 1, 1889, at Cook Farm, Danville, Contra Costa County. All bills payable before the animal is removed. Mares not proving in foal will have the privilege of return the following season, providing the same parties who bred the Mares still own them, and the Stallions are still owned by the Cook Stock Farm.

PASTURAGE, \$4 per month; Hay and Grain, \$10. Best care taken, but no liability assumed for accidents or escapes.

Mares sent to Fashion Stables, Oakland, Bennett's Stables, Martinez, or to Geary & Grindley's Stables, Hayward, will be forwarded to Farm Free of Charge.

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—PROPERTY OF—

Robert Ashburner and H. Van der Straten,

TO BE SOLD AT AUCTION

—AT—

The Bay District Track,

TUESDAY, JUNE 11, AT 12:30 P. M.

CONSISTING OF

The whole of the herd of 15 head of cows and heifers belonging to H. Van der Straten of Hopland, Mendocino Co., Cal., and 20 head of heifers and bulls belonging to Robert Ashburner of Baden Station, San Mateo Co., who will also sell at the same time and place a number of draft Horses and brood Mares, three to seven years old.

SALE ABSOLUTE.

Catalogues will be ready in a few days, and can be had of either of the above named parties, or of

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Correspondence Solicited.

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COLTS BROKEN.

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GILBERT TOMPKINS, Proprietor,
P. O. Box 149, San Leandro, Cal

Hereford Cattle.

IMPORTANT ANNOUNCEMENT.

There are now for sale at the Ranch of ANDREW SMITH, Redwood City, eight head of Imported Thoroughbred Registered HEREFORD BULLS, the finest ever brought to this State. All ready for service and guaranteed breeders. For particulars inquire of KILLIP & CO., 22 Montgomery St. HENRY VAUGHAN, Importer, Russ House.

ATTENTION!

A number of fine, pure-bred

HOLSTEIN-FRIESIAN BULLS

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H. P. MOHR.

Mt. Eden, Alameda Co., Cal.

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VETERINARY SURGEON,

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O. W. ERLEWINE, Manager.

WM. JOHNSTON, President.

WM. GREER, Secretary.



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On account of the death of F. A. BRIGGS, Manager of the Pacific Coast Branch of the Amesbury (Mass.) Carriage Factory, the whole stock of fine light Carriages, Buggies, Carts, Robes, Harness, Whips, etc., is offered for sale at less than cost, to settle the estate.

C. CREGO, Administrator.

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SHEEP MEN, ATTENTION!



ADMINISTRATOR'S SALE

By order of Probate Court, in the matter of the Estate of
JAMES ROBERTS, Deceased.

I will sell at private sale to the highest bidder, for cash, on or after May 1, 1889, at the Ranch in Irvington, or at my office in Oakland, 946 Broadway, Alameda Co., Cal., the entire flock of Thoroughbred French Merino Sheep, consisting of 280 (Two hundred and eighty) Ewes, 79 (seventy-nine) Bucks, and 180 (one hundred and eighty) Lambs. These Sheep are the set of the original flock imported by Robert Blacow of Centerville. Mr. Roberts, as foreman, having charge of the flock for several years prior to Mr. Blacow's death, after which he became the owner of the entire flock, which he has kept purely for stock purposes.

All interested in Thoroughbred Sheep should be familiar with this flock, which has become famous under the care and management of Mr. Roberts; always receiving first premiums, having been sold to Europe, South America and all parts of the United States; individual members having repeatedly sold for from \$500 (five hundred) to \$1500 (fifteen hundred) each. Sheep Men should seize this opportunity to secure some, as they must be sold to settle up the Estate. Address, JAMES STANLEY, Administrator Estate J. Roberts, Deceased, Mission San Jose, or 946 Broadway, Room 17, Oakland, Cal.

THOROUGHbred SPANISH MERINO SHEEP.



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Premiums at the State Fair
for the last three years.

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Italian Queens, \$2.50 each; Black Queens, \$1 each; Swarms from \$2.50 each; Smoker, \$1. Comb Foundation, \$1.25 per pound; V-groove Sections, \$4 per 1000; Comb Honey whoe sale and retail; Hives, etc. W. STYAN & SON, The Homestead Apiary, San Mateo, Cal.



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S. F. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 5, 1889.

The weather the past week was more or less cool, which, taken altogether, was favorable to maturing grain. Trading outside of garden truck and fruits was quiet. The weakness in the wheat market is due to large crop prospects and an advance in charters. As information about our wheat crop becomes more fully disseminated, it is calculated to draw more ships to us, and in the end, low charters rule. The wheat market abroad has held fairly steady. The following is to-day's press cablegram:

LIVERPOOL, June 5.—Wheat—Steady. California spot lots 6s 6d to 6s 9d; off coast, 33s 3d to 33s 6d; just shipped, 33s 6d; nearly due, 33s 6d; cargoes off coast, nothing offering, with buyers and sellers apart and tending upward; Mark Lane wheat, quiet but steady; English country markets, quiet; French, steady; wheat in Paris, quiet; flour, steady.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	June.	July.	Aug.	Sept.	Oct.	Nov.
Thursday.....	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4
Friday.....	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4
Saturday.....	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4
Monday.....	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4
Tuesday.....	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4	69 3/4

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	33 3/4	33 3/4	33 3/4	Firm.
Friday.....	33 3/4	33 3/4	33 3/4	Deer.
Saturday.....	33 3/4	33 3/4	33 3/4	Quiet.
Monday.....	33 3/4	33 3/4	33 3/4	Firm.
Tuesday.....	33 3/4	33 3/4	33 3/4	Firm.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	June.	July.	Aug.	Sept.	Oct.
Thursday.....	80 1/2	81 1/2	82 1/2	83 1/2	84 1/2
Friday.....	80 1/2	81 1/2	82 1/2	83 1/2	84 1/2
Saturday.....	80 1/2	81 1/2	82 1/2	83 1/2	84 1/2
Monday.....	80 1/2	81 1/2	82 1/2	83 1/2	84 1/2
Tuesday.....	80 1/2	81 1/2	82 1/2	83 1/2	84 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	June.	July.	Aug.	Sept.
Thursday.....	78 1/2	79 1/2	80 1/2	81 1/2
Friday.....	78 1/2	79 1/2	80 1/2	81 1/2
Saturday.....	78 1/2	79 1/2	80 1/2	81 1/2
Monday.....	78 1/2	79 1/2	80 1/2	81 1/2
Tuesday.....	78 1/2	79 1/2	80 1/2	81 1/2

NEW YORK, June 5.—Wheat—82 1/2c for cash, 81 3/4c for July, 82 1/2c for August and 82 1/2c for September.

Foreign Grain Review.

LONDON, June 3.—The *Mark Lane Express* in its review of the British grain trade for the past week, says: The weather promises a good harvest. Farmers, despairing of higher prices, are delivering ten per cent more than usual. Good prospects, both at home and abroad, have knocked the bottom out of the markets. American wheat is flat and languid. South American and Australian are firmly held. Flour is steady. Barley and corn are 3d cheaper. Oats are firm. To-day's market was a little firmer, although the weather was fine and arrivals ample.

Wool.

NEW YORK, June 2.—There are but few wool buyers, and a large attendance could not be accommodated here, as the few arrivals have been sold up very close, and the remnant of desirable old is insignificant. A large and successful trade sale of woolen fabrics this week lends a buoyant tone to all the Eastern markets, and if summer prices are not inordinately strained the outlook is prosperous, as stocks evidently need replenishment. Country prices remain unbroken, and some Ohio fleeces are held at 33 1/2c. Boston notes a fair business, with no decline. Sales: 135,500 lbs. California spring, 17¢@20¢; also 151,000 lbs. of foreign and domestic. Philadelphia reports the confident position of small stocks with a quiet market.

Hops.

NEW YORK, June 2.—London cables report that the attack of lice and flies on the English hop plantations is very threatening. Some accounts indicate a more active trade in the London market in which American hops share. There was during the week a number of transactions in red Pacifics at 15¢@16¢, besides a fair trade in intermediate quality stock at corresponding prices. The market shows decidedly more tone, and prices on actual trading are a good 10 cents above the best bids made early in the week.

Another telegram from New York reports as follows: There is little doing in hops, which are held full at the late rates with a steady business. Best State brought 23c and best Pacific 21c. Cheap grades of Pacific have had a steady call from brewers at 15¢@16¢, and are tending higher. London reports show an active market in which all the Americas have shared, the demand being stimulated by an adverse early crop.

Eastern Fruit Sales.

CHICAGO, May 31.—An auction firm to-day sold for account of the agents of the California Fruit Union three carloads of California fruit, consisting of peaches, apricots and cherries. Apricots sold at \$1.70@1.80 per crate, peaches, \$2.20@2.30 per box; cherries \$3 per crate. The weather was bad and bidding was only fair to-day. Some of the apricots were too ripe and decayed.

HAYWARDS, June 1.—Returns have been received from the sale of the first carload of cherries shipped from here. They were sold in Chicago at \$1.75 per box of ten lbs. The freight per car of 1600 boxes is \$600, or 37 1/2c per box, leaving \$1.37 1/2 per box after deducting freight.

NEW YORK, June 3.—Agents of the California Fruit Union announce that the first auction sale of

California fruits will take place Thursday, and a carload of apricots and peaches will be sold. The present price, in a small way, on fruit bought in Chicago and sent here by express, is about \$3.50 to \$3 per box on apricots and peaches. Reports from Delaware show less than half a crop of peaches can be expected. The grape crop of New York is seriously injured by recent frosts.

CHICAGO, June 3.—The agents of the California Fruit Union sold fruit to-day as follows: Peaches, \$1.70@2.50; apricots, \$1.50@2.90; cherries, \$1.05@1.15; plums, \$1.45@1.85.

CHICAGO, June 4.—The agents of the California Fruit Union sold two carloads of fruit to-day as follows: Peaches, \$1.55@2.05; apricots, \$1.35@2.35; cherries, 80¢@1.45; cherry plums, \$1.15. Weather cool and the demand fair.

CHICAGO, June 5.—The California fruit sold to-day by the Adams & Lewis Auction Co. consisted of one carload of apricots, peaches, and plums. Apricots sold at \$1.90 to \$1.55; peaches, \$1.95 to \$1.60; plums, \$1.15 to 80 cents. The demand is fair.

Miscellaneous.

NEW YORK, June 2.—There have been several bright commercial incidents, including increased strength of hops, stiffer sugar and large auction sales in fancy dry goods, with one in cottons and two in flannels during the week. These have rendered the closing days of May memorable ones in trade history. The results have been very satisfactory, showing a surprisingly ready distribution of nearly \$5,000,000 worth of goods—a distribution that has a specially satisfactory significance in its widely scattered character.

Fine raisins are quoted strong since the late reduction of stock.

The first apricots were well received, being quoted at \$3 a case.

Cherries arrived in irregular condition. At the close of the week they showed a wide range of from 50c to \$2.

Ten-pound cases of peaches have sold readily at \$3@3.25 a case.

A mixed car of California fruit is expected to be sold at auction next Thursday. There promises to be an enlarged distribution of California fresh fruit this season if reasonably popular prices prevail.

A surplus of hides favors buyers, and 15c is extreme for California dry, with 16c for other high grades.

Though business of dried fruits upon the surface reflects a very quiet condition, yet in jobbing quantities there is a steady movement of supplies, and a considerable quantity of stock is being distributed in this way. The better grades of raisins and prunes have a call, but the stock of inferior grades is being gradually absorbed, and the position of the market for sound grades strengthened thereby.

Local Markets.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday.....	71 1/2	71 1/2	79 3/4
Friday.....	71 1/2	71 1/2	79 3/4
Saturday.....	71 1/2	71 1/2	79 3/4
Monday.....	71 1/2	71 1/2	79 3/4
Tuesday.....	71 1/2	71 1/2	79 3/4

NEW.

	S. S.	B. S.	B. '89.	*S. '89	*B. '89.
Thursday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2
Friday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2
Saturday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2
Monday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2
Tuesday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2

at BAGS—The market for Calcuttas is very strong at 8 1/2¢@8 3/4¢ for spot and 8 1/2¢ to 8 3/4¢ for July. As he call increases, still higher prices are looked for, particularly with many of the low-contract sales tied up by the death of the seller who had either hypothecated or sold the bags to a bank in this city.

BARLEY—The sample market is quiet, with probably a steadier tone, owing to the very low quotations given. In futures, dealing continues light. At to-day's Call the following are the sales reported:

Morning Session: Buyer 1889—200 tons, 77 1/2¢; 100, 77 1/2¢; 100, 77 1/2¢; 200, 77 1/2¢; 300, 77 1/2¢; 100, 78¢; 100, 78 1/2¢. Seller 1889, new—200 tons, 69 1/2¢ @ cwt. Afternoon Session: Buyer 1889—100 tons, 78 1/2¢. Seller 1889, new—400 tons, 69 1/2¢. July—100 tons, 60¢ @ cwt.

BUTTER—As indicated in last week's Press, the market is weak and lower. Receipts are very heavy, with Eastern creamery coming in on the market. Second and third grade butter, particularly the latter, are hard to sell.

CHEESE—Receipts are lighter, but the stock is large and demand only fair. Eastern continues to come to hand in a small way.

EGGS—Receipts are increasing, which causes a weaker feeling. With continued free receipts overland, it is claimed that prices will recede. The consumption is good.

FLOUR—Shipments out of the State are increasing, lower prices inducing the buying for shipment.

WHEAT—The market for sample parcels is reported quiet and weak, with buyers bidding lower. In futures, the dealing has only been fair. Some farmers are reported to have bought futures and will sell their wheat so as to save interest and storage. The following are the sales reported on to-day's Call:

Morning Session: Buyer 1889—500 tons, \$1.32. Buyer 1889, after August 1st—200 tons, \$1.31 1/2. Seller 1889, new—100 tons, \$1.24 1/2 @ cwt. Afternoon Session: Buyer 1889—100 tons, \$1.32 1/2; 500, \$1.32 1/2; 200, \$1.32 1/2. Buyer 1889, after August 1st—800 tons, \$1.32 1/2; 100, \$1.32 1/2; 200, \$1.32 1/2; 300, \$1.32 1/2; 300, \$1.32 1/2. Seller 1889, new—200 tons, \$1.25 1/2; 500, \$1.25 1/2 @ cwt.

CARR'S BIG FENCE.—A dispatch from Portland to the *Chronicle* this week says that the civil case against Jesse D. Carr for unlawfully inclosing public lands has been postponed by the District Attorney till November—it is supposed to give Carr a chance to remove his inclosure in the meantime. The criminal suit against Carr will probably come up for trial in July.

Market Information.

Produce Receipts.

Receipts of produce at this port the week ending June 4th, were as follows:

Flour, qr. sks.	110,514	Middlings, sks.	5,506
Wheat, cts.	208,532	Alfalfa, "	—
Barley, "	12,410	Chicory, "	—
Rye, "	400	Broomcorn, bds.	—
Oats, "	10,700	Hops, bls.	—
Corn, "	5,347	Wool, "	4,753
Butter, "	2,497	Hay, tons.	1,850
do bxs	1,337	Straw, "	24
Cheese, cts.	859	Wine, gals.	177,565
do bxs	91	Brandy, "	5,520
Eggs, doz.	177,400	Raisins, bxs	2,214
Beans, cts.	2,707	Honey, cs.	76
Potatoes, sks.	16,754	Walnuts, sks.	115
Onions, "	4,378	Flaxseed, sks.	293
Bran, sks.	100,375	Mustard, sks.	50
Buckwheat, sks.	—	—	—

Cereals.

The first of the new barley crop arrived in this city Saturday, consisting of a carload of 180 sks., shipped by George Benson from near Dixon, Solano county. The sample shown on 'Change was bright and clean with a good plump berry, and weighed nearly 47 lbs. to the bushel. The carload was sold to C. S. Laumeister at 75¢ @ cwt. The following shows the date of arrival and the price obtained for the first barley of each season since 1870:

Year.	Date.	Price.
1870.....	June 19	\$1 20 1/2
1871.....	June 12	1 57
1872.....	June 6	1 40
1873.....	June 5	1 10
1874.....	June 9	1 45
1875.....	June 20	1 35
1876.....	May 30	90
1877.....	June 30	1 55
1878.....	June 11	80
1879.....	June 30	75
1880.....	June 24	64 1/2
1881.....	June 21	90
1882.....	June 12	1 65
1883.....	June 25	95
1884.....	June 28	90
1885.....	June 16	1 25
1886.....	May 26	1 28
1887.....	June 3	1 15
1888.....	June 6	92 1/2
1889.....	June 1	75

The writer's returns of the wheat crop from the various agricultural sections are conflicting, although the general tenor of advices are confirmatory that the outlook will be the largest in the history of the State. The yield to the acre will not be so large as in 1880, but the increased acreage more than makes this good. Taking the Sacramento valley as a whole, it is safe to claim that the yield will be from 75 to 100 per cent more than it was in 1888. In the great San Joaquin valley the yield will be decidedly spotted, particularly on the west side, ranging from one-third to a full crop. In the central southern counties the outlook will be more even, running from 60 to 110 per cent. The more northerly counties will turn out above an average. The quality of the grain will be excellent for the early sown, with more or less shrunken in the late sown. In some of the central southern counties some rust and smut is reported. Had the April weather been cool and showery, we would have had an enormous crop; as it is we will probably have more than in 1880, when the outlook was about 1,750,000 tons.

The local wheat market the past week was quiet, with buyers still bidding down. There is some buying for Australasia. The shipments hence to that country so far in this year aggregate about 17,000 tons of wheat and flour. Their total wants are placed at about 40,000 tons. English export buyers are not operating to any extent, owing to ships' enhanced views and the unsatisfactory market abroad. At less than \$1.25 here for No. 1 white shipping, farmers will have a very hard time to make both ends meet, consequently all who can will store and borrow money, provided prices should drop below \$1.25 per cental. Harvesting has not, as yet, fairly begun.

Returns from the fields where barley harvesting is under way, report the grain looking exceedingly well, being plump and heavy. The yield to the acre is large. In the sample market, barley is quiet. New is not offering; for old, buyers are still offish. At the low prices of a few days ago, large consumers are said to have taken quite freely.

Continued heavy receipts of oats cause the market to run in the same old groove, slow and weak. To effect sales of any moment, liberal concessions, even on current low prices, are necessary.

Corn holds up well, considering the condition of the market for other cereals. Receipts are free. The prospects in this State for the incoming crop are of the very best.

Rye is weak at a further reduction in prices.

Feedstuff.

In ground feed, the call shows a slight improvement, but the heavy obtainable supplies keep prices down. It is generally claimed that the consumption from now on will gradually increase.

The market for old hay holds fairly steady, but for new, prices favor buyers. New is quotable at from \$6 to \$9.50 a ton. Owing to the hot, forcing weather soon after the rains in May, a very large number of fields of grain intended to be cut for hay matured too fast, and consequently they will be cut for cereals.

Fruit.

Apples have made their appearance in the market, but the quality is poor—too green and hard. Peaches are improving in quality, although they are still small and only fairly ripe. Blackberries came to hand the past week. For the first receipts the quality was good. Figs are in the market, but hardly enough to justify quoting. Raspberries make a better showing, with prices lower. Strawberries fluctuated considerably. There has been a wide range in prices. Some sales were made as low as \$1.50 to \$2.50 a chest, owing to the fruit being soft and over-ripe. Gooseberries, under free receipts, are in buyers' favor. The receipts of cherries have been very heavy, with one or two days showing an aggregate of 10,000 boxes for each day. The quality, both in flavor and size, runs better than last year. Toward the last receipts were lighter,

when a better tone set in. Currants are coming in quite freely. Some sales were made as low as \$1.50 a chest.

Canners are in the market for cherries, strawberries, gooseberries and currants. It is very hard to get particulars of contract sales. Why, the writer cannot say, but that canners have bought of orchardists direct is asserted to be true by dealers, but particulars are withheld.

The action of the Southern Pacific and Northern Pacific in notifying the Transcontinental Railroad Association that they will withdraw from the pool after 90 days, is looked upon by dealers as a bluff, to force better terms for them. But if they should withdraw, it is to be hoped that overland freights will recede to such low figures as to admit of heavy shipments at a profit of both dried fruits and canned fruits. The freight tariff, said to have been dictated by the S. P. R. people, discriminates against this coast.

In dried fruits, there is nothing new to report. Choice, well-selected of all kinds, are in light stock. It is claimed by many that more fruits will be dried this year than were last year.

In canned fruits the situation is unchanged. The slightly lower overland freight rates favor shipments, but the Eastern market is not in condition to take large quantities. The high cost of sugar and tin is against canners.

Royal apricots are coming in more freely, causing lower prices. At the lower range, canners are in the market. Pears are coming in, but as yet the quality is poor.

Live-Stock.

The market for bullocks and mutton sheep is dull, but not more so than usually obtains at this season of the year. It is generally claimed that prices will rule low well up to the fall months, when a slight rally is looked for. Upon what this opinion is based it is hard to say. For calves and lambs the market is fairly steady. Hogs have a weaker tone. Advices from the Central States indicate a lower range of values. Milch cows are without change. In horses there is no change to report.

The market for dressed cattle is quoted as follows: To obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent.

HOGS—On foot, grain fed, 5¢@6¢ @ lb.; dressed, 8¢@9¢ @ lb.; soft, 5¢@5 1/2¢ @ lb.; dressed, 8¢@9¢ @ lb. Stock hogs, 5¢@6¢ @ lb.

BEEF—Stall fed, 6¢@6 1/2¢ @ lb.; grass fed, extra 5¢@6¢ @ lb.; first quality, 5¢@5 1/2¢ @ lb.; second quality 4¢@5¢ @ lb.; third quality, 3¢@4¢ @ lb.; bulls and thin cows, 2¢@3¢ @ lb.

VEAL—Small, 7¢@8 1/2¢ @ lb.; large, 6¢@7 1/2¢.

MUTTON—Wethers, 5¢@5 1/2¢ @ lb.; ewes, 4¢@5¢ @ lb.; lamb, spring, 6¢@8¢ @ lb.

Vegetables.

Choice, well-matured, new potatoes are in good demand, chiefly to fill shipping orders. Other kinds are in buyers' favor.

The market for seasonal vegetables is well supplied with all kinds. The very low and unsatisfactory prices for some kinds, particularly summer squash, discourage shipments to this city. Owing to the large number of persons going to the seaside and country, the local consumption is falling off.

Canners are still in the market for peas, string beans and asparagus.

Onions continue weak at low prices.

Wool.

The market is active, with more competitive buying. Sales are reported more freely at our outside quotations, while many clips are placed at still better figures. Receipts from Oregon are increasing. The grade and condition are good, better if anything than they were last year. Stocks do not appear to be accumulating, but move off freely. Scourers are large purchasers. Last year they bought heavily at low prices and turned them out at a good profit.

Justice, Bateman & Co. of Philadelphia in their late circular say: The wool market is irregular and unsettled, mainly owing to the large amount of foreign wool and foreign goods that were reported in anticipation of the recent customs changes. Semi-manufactured scoured wool, in the shape of broken tops and similar articles, now pays 60c per pound, as against 10c per pound under former rulings of the 1867 tariff, and the woolen cloths known as worsteds now pay a specific duty of 35c per pound instead of 12c, 18c, or 24c per pound, according to the value, as heretofore. The latter decision has been made by the appraisers of the various ports only, and has not been officially confirmed by the Treasury Department at Washington, but it is expected at any moment. Without such confirmation it is not thought present prices for wool can be maintained, but the belief in speedy action on this question by the Treasury Department of those who hold wool is so great that it is firmly held at present nominal quotations.

Miscellaneous.

Poultry has held to fairly steady prices throughout the week, overland receipts being the balance-wheel. Choice hops are scarce and wanted. It is claimed that this season's crop on this coast will run up to about 100,000 bales.

Colored beans continue to hold to strong prices, but whites favor buyers. The crop this year promises to be very large.

Honey is without essential change. Buyers are offish, waiting for freer receipts of new.

In nuts there is nothing new to report. The crop promises to be only fair to the tree, although an increase in the number of bearing trees will bring the total crop well up.

From the *Commercial News* of June 5, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port	197,815	292,975
On the way to neighboring ports ..	28,327	127,425
In port, disengaged	24,377	33,691
In port, engaged for wheat	50,190	13,950

Domestic Produce.

Table with multiple columns listing various domestic produce items such as Beans and Peas, Butter, Eggs, Flour, Hops, and various fruits and vegetables, along with their prices.

Table listing various fruits and vegetables including Apples, Bananas, Lemons, Oranges, Peaches, and others, with their respective prices.

INYO SHEEP TAXES.—Sheriff Eldred of Inyo county, by persistent "rustling" among the sheepmen, had collected \$3400 for sheep-license taxes up to May 23d—so says the Independent. The entire amount collected last year was \$2600.

PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.)

Table showing Pacific Coast weather for the week, including dates (May 29-June 4) and weather conditions for various locations like Portland, Eureka, Red Bluff, Sacramento, S. Francisco, Fresno, Keeler, Los Angeles, and San Diego.

EXPLANATION.—Cl, for clear; Cy, cloudy; Fr, fair; Fy, foggy; Cm, calm; — indicates too small to measure. Temperature, wind and weather at 12:30 M. (Pacific Standard time) with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.

Advertisement for a new paper binder by A. T. Dewey, featuring an image of the binder and text describing its benefits for organizing documents.

Advertisement for a treatise on the horse and his disease by B. J. Kendall, M. D., featuring an image of a horse's head and text about the book's content.

Advertisement for a nursery, offering \$2500 worth of plants and seedlings, with a deadline of sixty days.

Large advertisement for Spengerian Steel Pens, claiming they are the best and most durable, with a list of qualities and a contact address.

Advertisement for Smalley Cutters, head-quarters and general agency of the East, for the latest improvements in cutting tools.

Large advertisement for the Fireman's Fund of California, featuring the word 'CROPS' in large letters and text about insuring grain.

Advertisement for Mery's Improved Pioneer Barley Crusher, showing an image of the machine and text about its features and availability.

Testimonials and contact information for M. L. Mery, Chico Iron Works, Chico, Cal., including a letter from George Shand.

Advertisement for Wakelee's Squirrel and Gopher Exterminator, featuring an image of a squirrel and text about the product's effectiveness.

Advertisement for John Driver's Combined Harvesters, featuring text about the machine's capabilities and contact information for Dewey & Co.

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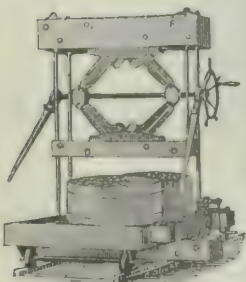
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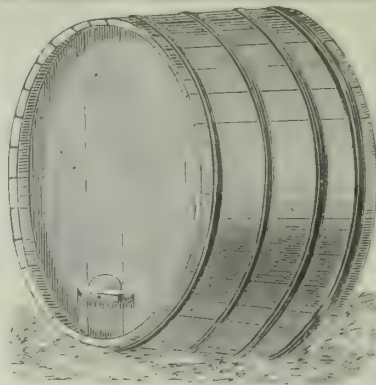
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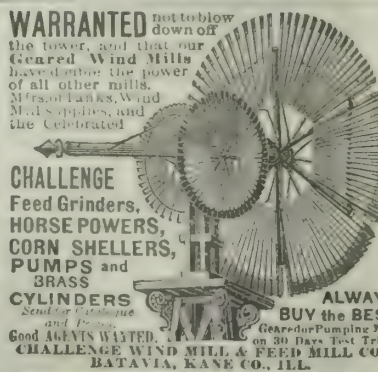
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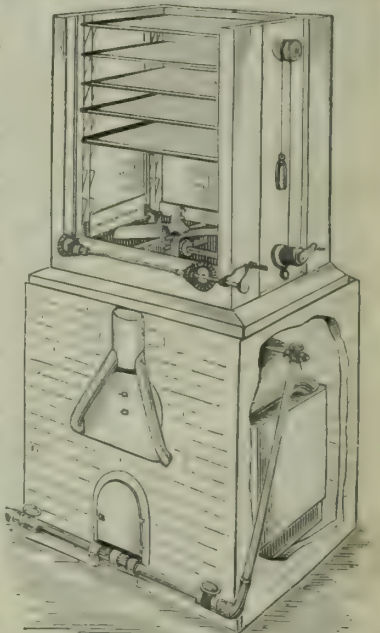
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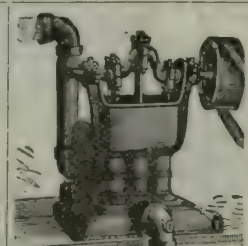
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We have just received, per schooner Ivy, a cargo of Fine Ripe Tahiti Oranges and desire to call the attention of
Nurserymen and all who use this Seed to this opportunity to procure it, as this is the only seed fit to plant, as it is
the only kind that will germinate. It will be packed in barrels as usual. Please send in your orders early so that
we can fill them as soon as possible.

L. G. SRESOVICH & CO, 505 and 507 Sansome Street, San Francisco.

FOR THE MYSTERIOUS VINE DISEASE. ONGERTH'S INSECTICIDE POWDER,

No. 2.



TRADE MARK REGISTERED.

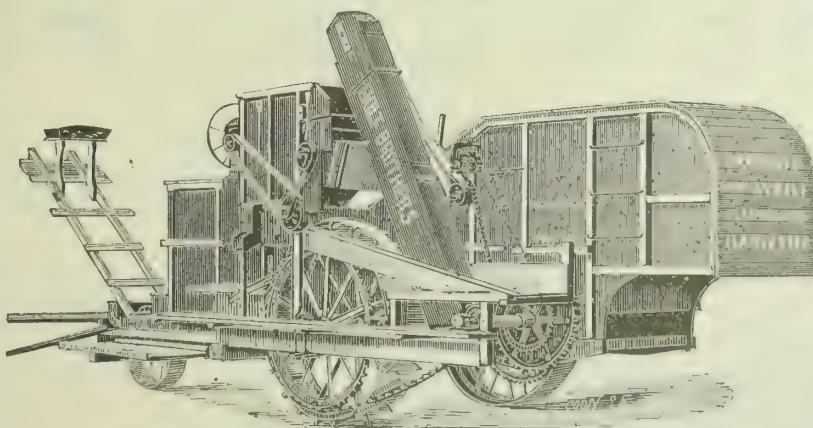
This powder is the preparation specially
recommended by Hon. J. De Barth Shorb,
Viticultural Commissioner, and Prof. Ethel-
bert Dowlen, Expert employed by the State
to investigate the mysterious Vine Disease.
All the powder used by them in their recent
experiments was the ONGERTH INSECTI-
CIDE POWDER No. 2, of which about
20,000 pounds have been shipped to the
San Gabriel Valley.

See Official Report in Rural
Press April 27, 1889.

No preparation genuine without this
trade-mark.

Manufactured by the ONGERTH
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210 & 212 Davis St., San Francisco,
to whom all orders should be addressed.
Samples and prices submitted on applica-
tion. Also manufacturers of the Ongertth
Liquid Tree Protector and Ongertth
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HOLT BROTHERS' Improved Combined Harvester.



For Efficiency, Durability, Light Draft and Fine Work it is far
superior to any other harvester of the present day.

Those contemplating buying are invited to visit our manufactory and see for themselves.

Circulars and testimonials sent on application to

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Stockton, Cal. 30 & 32 Main St. S. F.

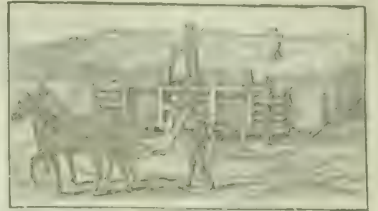
PRESCOTT HOUSE.



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Free Coach to and from the House.

J. W. BECKER, Proprietor.



THE HURRICANE—Size A.

A mounted, horizontal double-ender. Size of bale,
when in the press, 18x24x46 inches. Average weight
of bale, 280 pounds. Capacity, from 18 to 25 tons per
day. Uses 4 men and works with 1 or 2 horses, at option
of baler. Requires no tramping. Uses rope or wire.
Puts 10 tons or over in a box car.

Price.....\$1000.

THE HURRICANE—Size B.

Size of bale in press, 22x24x46 inches. Average weight
of bale, 280 pounds. Capacity, from 20 to 35 tons per
day. Uses 5 men and works with 1 or 2 horses, at option
of baler. Requires no tramping. Uses rope or wire.
Puts from 7 to 8 tons in a box car.

Price.....\$1000.



The SELF-TRAMPING JUNIOR MONARCH

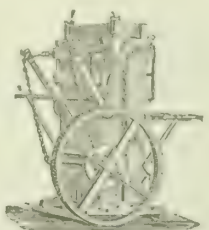
Size of bale in press, 22x24x46 inches. Average weight
of bales, 280 pounds. Capacity, from 15 to 25 tons per
day. Uses 3 or 4 men, at option of baler. Works with
1 or 2 horses. Uses rope or wire. Does its own TRAMP-
ING. Puts from 7 to 8 tons in a box car.

Price.....\$500.

THE MONARCH.

Same principle as Junior Monarch, only smaller and
heavier. Size of bale, when in press, 17x20x40 inches.
Average weight of bale, 220 pounds. Capacity, from 12
to 20 tons per day. Requires 3 men and 2 horses. Uses
wire only—rope will not hold. Does its own TRAMPING.
Puts 10 tons or over in a box car.

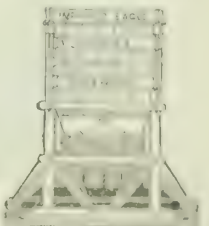
Price.....\$600.



THE GENUINE PRICE PETALUMA.

Size of bale in press, 24x24x50 inches. Average weight
of bale, 250 pounds. Capacity, from 10 to 18 tons per
day. Requires 4 men and 2 horses. Uses rope or wire.
Hay has to be tramped into the press. Puts from 5 to
6½ tons in a box car.

Price.....\$350.



THE IMPROVED EAGLE.

Size of bale in press, 26x26x50 inches. Average weight
of bale, 235 pounds. Capacity, from 10 to 15 tons per
day. Requires 4 men and 2 horses. Uses rope or wire.
Hay must be tramped in the press. Puts from 4½ to 5½
tons in a box car.

Price.....\$250.

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United States. They are nearly double the capacity of
those of other makers.
For large, illustrated Catalogue of the same, ad-
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PRICE HAY PRESS CO.,
San Leandro, Cal.

BEST TREE WASH.

"Greenbank" 98 degrees POWDERED CAUS-
TIC SODA (costs 99 & 10 per cent) recommended by
the highest authorities in the State. Also Common
Caustic Soda and Potash, etc., for sale by

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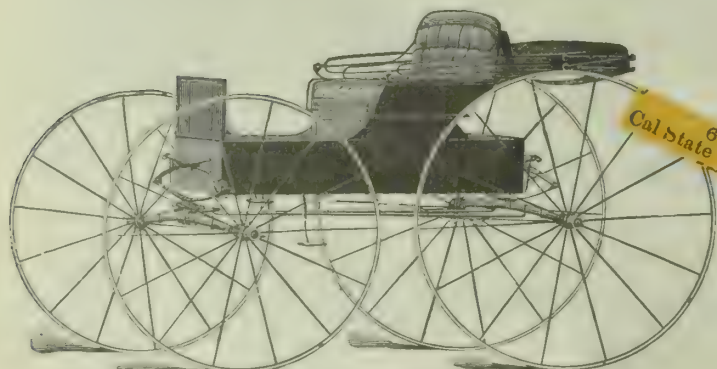
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GRAIN WAREHOUSE,
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75,000 TONS CAPACITY. 75,000
Storage at Lowest Rates.

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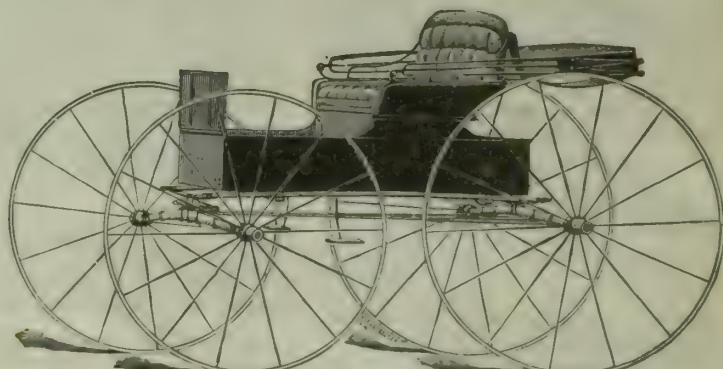
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RACINE WAGON AND CARRIAGE CO'S NEW BUGGIES.



RACINE NO. 511.—END SPRING GEAR.



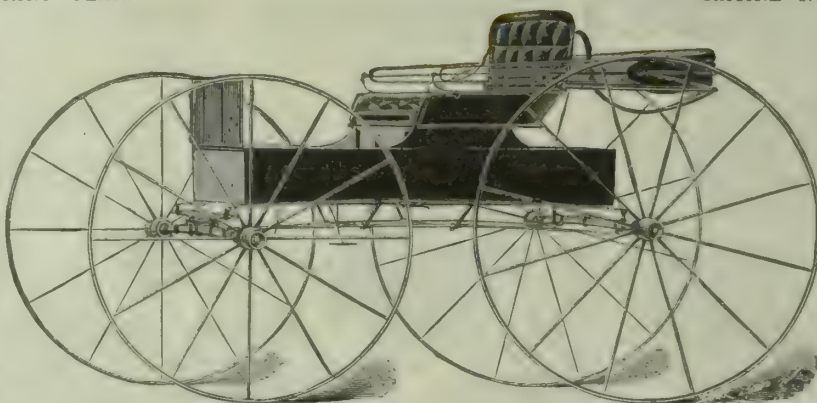
RACINE NO. 510.—BREWSTER GEAR.

BODIES AND GEARS.—Made from thoroughly seasoned stock, under our personal supervision; well screwed and glued. Bodies 50½x25 inches.

IRON WORK.—All done by experienced and competent workmen. All forgings of Norway or best refined iron. All irons perfectly fitted upon forms, which obviates burning the wood; filed and finished smooth.

SPRINGS.—All springs made of the best steel, from our own patterns, oil tempered, fully warranted and carefully tested before used.

TIRE.—All round edge and well bolted. Leather dash and whip sockets on all jobs. Shafts full leathered and tipped.



RACINE NO. 512.—DEXTER QUEEN GEAR.

WHEELS.—Sarven patent, 3 feet 7 inches and 3 feet 11 inches, well selected second growth hickory.

AXLES.—Genuine steel half patent, fan-tailed; either $\frac{7}{8}$ or 1 inch.

TRIMMING.—Leather quarter top, and leather cushion and back, with rubber side curtains.

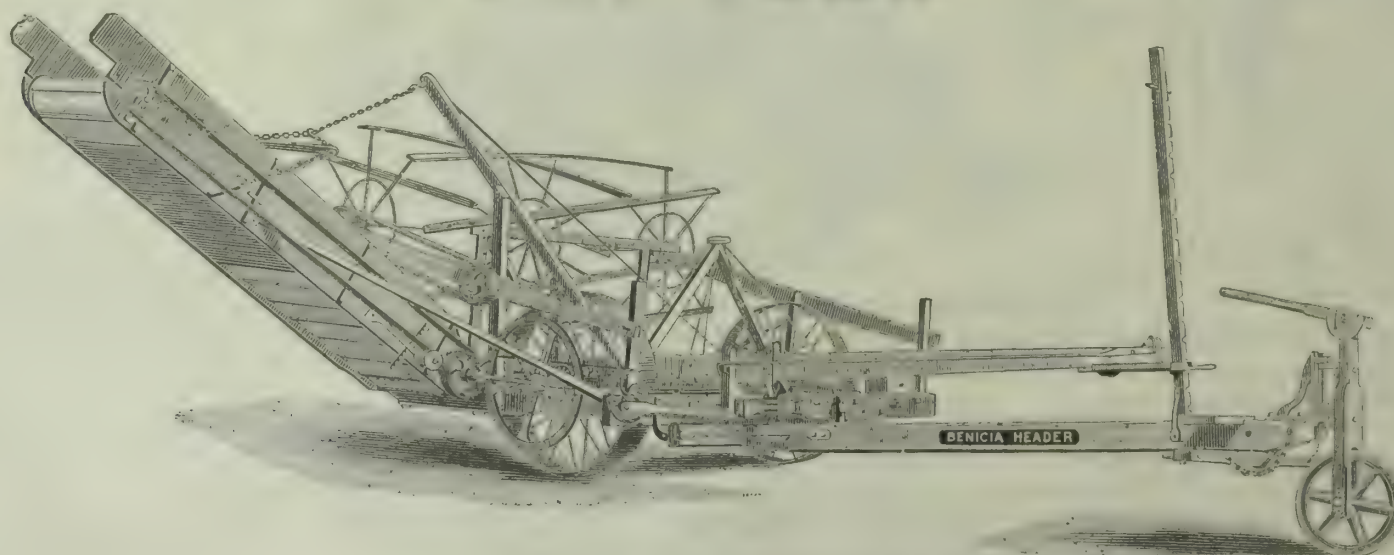
PAINTING AND FINISHING.—In this department we make it a special point to use none but the best materials, and employ none but skillful and competent workmen. Body, black; gear, Brewster green.

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HAWLEY BROTHERS HARDWARE COMPANY, Agents, San Francisco, Cal.

THE "BENICIA" HEADER

For 1889.



PRICES:

8-FOOT SINGLE GEAR, Tires of Main Wheel are 8 inches wide; Grain Wheel, 6 inches wide.....												\$325	00			
10	"	"	"	"	"	"	9	"	"	"	6	"	"	350	00	
12	"	"	"	"	"	"	10	"	"	"	"	6	"	"	375	00
14	"	"	"	"	"	"	10	"	"	"	"	8	"	"	400	00
16	"	"	"	"	"	"	10	"	"	"	"	8	"	"	425	00

Last Season we placed on the Market the Improved "BENICIA HEADER," which met with a success beyond our anticipations. We again offer our patrons the same machine for the coming season.

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SAN FRANCISCO:
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Nos. 9, 11, 13, and 15
J Street.

And by our Agents in the Interior.

PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXVII.—No. 24.

SAN FRANCISCO, SATURDAY, JUNE 15, 1889.

\$3 a Year, in Advance.
SINGLE COPIES, 10 CENTS.

The Sheep Tax and Lassen County.

A writer for the *Lassen Advocate* shows that his county is in a pickle over the head tax on outside sheep. We have made frequent allusion to the subject in its various phases, and the present condition of affairs is interesting. It seems that Lassen first levied the tax. This led other counties to follow suit; so sheep were hampered to some extent, which promised to regulate the outside range, and protected the local cattle and horse men considerably. However, the tax was poorly collected, and finally wound up by the board taking off the tax. This leaves the matter in an unsettled condition, as the balance of the license must be collected, or that collected refunded. This has involved a heavy expense to the county and left the condition of things in a more unsettled state of affairs than when first levied.

If this state of affairs is maintained, says the writer in the *Advocate*, we are in a peculiar location, as Modoc county has levied 7½ cents per head on sheep; Plumas county has 5 cents per head; the State of Nevada has the trespass law, which leaves a low place about the size of Lassen to be inundated with numberless thousands from all sides, and as the sheep and other stock man has a weakness for good feed and mountain water, we must expect a grand rush only surpassed by the Oklahoma rush. We must expect in return poor stock; more expense in watching our stock from being driven off, or following the meandering herd to the lower country only to be thought of when the assessor is making his annual visit among us. This will be followed by other county expenses, as men become wild on such occasions, and courts will be the only relief at the county's expense.

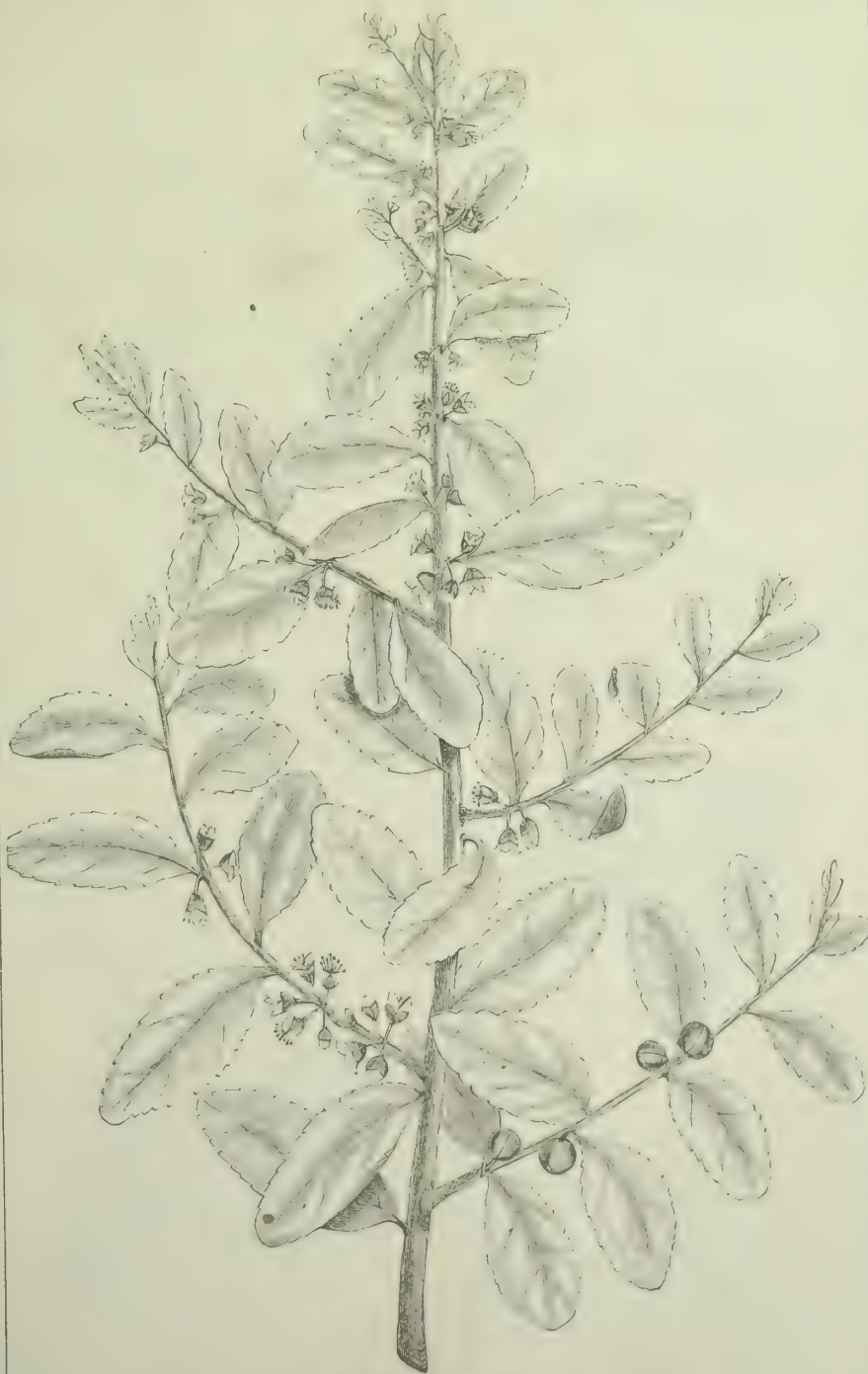
The conclusion would seem to be that Lassen must re-enact the tax for self-preservation unless adjoining counties discard it. The situation is interesting, if not much can be said of it otherwise.

SECURE GRAIN SAMPLES.—Almost every fall when the fairs begin many people have to lament that they did not save sheaves of some extra-fine grain that they had harvested a few weeks before. This neglect to save good specimens results in far inferior displays at the State and county fairs and at the Board of Trade headquarters than could be secured by thinking of the matter at the proper time. Let all take the subject home to their own thoughts. Select good samples, bind them up neatly and put them beyond the reach of vermin. Even if you do not care to make displays yourself, some enterprising collector in the neighborhood will probably do it, and the very little effort required to lay by the material may result in exhibits which will do your farm and your section much credit. Begin early and save what is good in grain or grass, dried fruits or other imperishable products, and don't have to regret next fall that you neglected to do it.

AUSTRALIAN APPLES.—A shipment of Australian apples arrived in good order this week and is selling at \$3 per box. The receivers think a dollar more could have been had if the fruit had come by the May steamer, before our summer fruits became so plentiful. The lot included 10 varieties of apples and the fruit is commendable.

CHINESE CHEAP LABOR AND THE SCALE.—Set a thief to catch a thief might have its analogue in setting a social pest to exterminate an entomological one. At all events, according to the *Riverside Press*, Duesy Wo Lung, a boss Chinaman of that place, makes a proposition to the

JUTE AT SAN QUENTIN.—The Board of State Prison Directors last Saturday approved the contracts entered into by the Jute Committee, purchasing 300 bales of raw jute from J. W. Grace & Co. at 4 cents a pound and 1000 bales at 3.84½ cents from R. Lichtenberg. Warden



THE YAUPON Ilex Cassine.

A Native Medicinal Tree.

A famous tree with an interesting history is the Yaupon or Cassena, of which a flowering and fruiting branch is shown on this page. It is included in the series of native medicinal growths described by Dr. Vasey, U. S. Botanist, and our engraving is from his drawing. Its botanical name is *Ilex cassine*, and it is a small tree, 15 to 25 feet in height, or only a shrub, growing in the Southern Atlantic and Gulf States, near the coast, and in the southern part of Arkansas. It is said to reach its greatest development in the river bottoms of Eastern Texas. It is a handsome evergreen. The leaves are three-quarters of an inch to an inch and a half in length, thick, smooth, shining green above, pale beneath, mostly of an oblong or ovate form, sometimes entire on the margins, sometimes with small obtuse teeth. They are alternate and very short stalked. The flowers are in small clusters in the axils or points between the leaf and the twig. They are white and minute, the parts requiring a glass for their plain discrimination. The calyx has from four to six obtuse teeth. There are from four to six sepals and as many stamens. The ovary develops into a small red berry, becoming black, of the size of a small pea. These berries consist mostly of the two to four bony seeds which they contain. The leaves have a peculiar intoxicating property, and were used by the Indians under the name of black drink, both as a medicine and as a drink of etiquette at their councils. Prof. Venable of the University of North Carolina has recently made an analysis of the leaves, and states that they contain a small percentage of caffeine, or the peculiar principle found in coffee, and in the mate, or Paraguay tea (*Ilex paraguayensis*) of South America.

THE FARMER'S BURDEN.—While parasites affect our fruit, and nearly everything we raise has its enemy, the chief monster with which farmers have to contend is the mortgage, which eats like leprosy. At first it is painless, but it soon gets such a hold that neighbors notice it, and it spreads and spreads until it compasses the farmer's destruction. Were this the only enemy, the son of the soil might hold his own; but it matters not that crops fail, sickness causes loss of time and those losses which inevitably result when workmen have no head, the mortgage which gets in its deadly work night and day, like Shylock, demands its full payment. Besides, the injustice is greatly augmented by the fact that the interest is not only exorbitant, but also that the farmer has it to pay not simply for the small amount he received, but for the amount which was taken from the total sum as commissions, examination fees, fees for recording and abstract, etc. Very likely, also, the Eastern company whose agent has loaned the money has sold the mortgage, making money by the transaction before a month has elapsed. The farmer who borrows should count well the cost, and in many cases deny himself the desired improvements rather than load himself down with a burden which it is almost impossible to remove.

The Calaveras Board of Trade was organized at San Andreas Monday evening. A delegation from the Stockton Board of Trade was present and assisted. Great enthusiasm prevailed.

local fruit-growers that he is ready to make a contract to maintain the immunity from scale of the orchards of Riverside, if he can have a seven years' contract to care for the groves of the entire city. He will give a \$10,000 bond for fulfillment of contract. There are many of the citizens who are disposed to favor some such plan. His idea is to put a crowd of Chinamen at work whenever a sign of scale is found, and wash not only the limbs but the leaves on both sides as well.

McComb's report shows a daily manufacture of 13,000 grain sacks, which are sold at the uniform price of 7½ cents, while inferior bags are bringing 8½ cents in the San Francisco market.

CLOVERDALE WOOL SALES.—Wool-growers in the vicinity of Cloverdale have set Tuesday, June 25th, for the day of general wool sales.

A FEW cases of pinkeye are reported among horses at Fresno and Petaluma.

CORRESPONDENCE.

Correspondents are alone responsible for their opinions.

From Sea to Sea--No. 2.

EDITORS PRESS:—Crash, rattle, bang, drive, push, rush! that's a specimen of Chicago—at any rate Chicago during the Centennial. It's a grand city, that Queen of the Northwest. Sitting there with the blue waters of the lake rippling at her feet, and girded with her ever-green parks and boulevards, she cannot fail to command the admiration of all beholders. The day preceding the memorable 30th we spent in viewing some of the many buildings and places of special interest. Chicago's business blocks are models of their kind. The Rookery, one of the finest of these, is a magnificent 11-story structure, with archways, halls and courts finished in white marble with gilt trimmings. The whole effect of the blending of the two colors is very pleasing. The Pullman is another beautiful block, finished in dark woods and supplied with every costly furnishing imaginable. From the roof of this, a nine-story building, one has a view of Lake park and the lake, with the great Exposition building near it. This huge pile, which nevertheless looks low from where we stand, is the place where Blaine, Garfield and Cleveland were nominated, and where the great Centennial Loan Exhibition is to be held to-morrow. Looking inland from the lake, the city lies before us with volumes of smoke rolling from every chimney, for we are in the thick of the business part of the city. Now come down, and don't lose your head in these rocket-like elevators. They do go almost in the twinkling of an eye.

But we come into the cold, crisp air, and steer for the Chamber of Commerce. On our way, see! There is Owing's block, towering fourteen stories high. Not being quite completed, we are not allowed to go upon its roof; but oh, wouldn't I like to!

Yes, this handsome brick building is the Board of Trade headquarters, otherwise the Chamber of Commerce. Don't be frightened; that yelling and shouting is only the men in the wheat pit bidding for stock. We turn to the left up a broad flight of stairs and find ourselves overlooking the whole scene. This is certainly Badlam, do you say? Some one just told me that to-day things are unusually quiet.

Look first at the hall itself. Directly opposite this gallery, fronting the main entrance, are three huge dials, marked respectively wheat, corn and oats, pork. The hands are connected by wires to these little raised boxes, where the recorder of each pit is stationed. As the value changes, or rather as the price fluctuates, the recorder presses a button and the hands of the dial indicate the change.

The pits are simply raised platforms, one above another with a depression in the center. Wheat is most lively this morning, and the men stand and yell and hold up both hands in a way that makes one doubt their sanity. A splendid place for character study this! I could stay all day, it's so fascinating.

Over on the left are the sample tables, while at the right sit a perfect army of clerks, scribbling away for dear life. To look at the stately pillars one would not dream but that they were genuine. Alas! "things are not what they seem." That apparently green-veined marble is only a preparation put on over a hollow cylinder of iron!

The walls and ceiling, which are divided into compartments, were elegantly frescoed, but look rather dingy now. As a whole, it is a very fine building, and the scene one not easily forgotten. If you ever go to Chicago, don't miss seeing the Board of Trade building.

Rockville, Conn. SADIE M. HARDY.

HORTICULTURE.

A Pioneer Fruit-Grower.

EDITORS PRESS:—I have just enjoyed a visit at W. H. Pepper's orchard and nursery, about seven miles from Petaluma. It is one of the oldest and best-known establishments in the State. W. H. Pepper, the proprietor, came to the State in 1850. After mining a short time, he and his brother started into the nursery business and planted an 80-acre orchard of mixed fruits at Ballard's Bar in Yuba county, buying the trees and stocks at San Jose, Santa Clara county, paying for the trees on a basis of \$2 each for cherry trees. This orchard was very profitable until the first great burst-up in the fruit business occurred in this State, or so soon as the local supply exceeded the local demand.

In 1858 Mr. Pepper left the "up country" and located on the place he has since occupied, bringing with him a large amount of stock mostly in dormant bud, from which he planted quite a large orchard, most of which is in fine condition yet. His first love among the fruits was the cherry, and if he had known exactly which varieties to plant at the start, they would have returned him a great fortune. Yet, without experience, such as he did plant were very profitable. He planted largely of

May Duke and other Duke varieties, of which the May Duke did the best. Out of over 300 trees of these planted, I believe there are only three trees left. He has gradually changed the cherry orchard into a few of the varieties of sweet cherries that experience showed were best adapted to his soil, climate and market. He now has mostly Napoleon Bigarreau (Royal Ann) and Black Tartarian, but finds he has little use for any other cherry for market except the Napoleon. The Rockport does finely, but is too late in his climate to be of value as an early cherry. Mr. Pepper has in fruit or has fruited nearly all the best standard varieties of cherries. He also planted largely of apples and pears of many varieties. Therefore he may be considered a living encyclopedia of the fruits best adapted to the coast regions of California.

Throughout these long years he has endeavored to procure from the best sources nearly every new fruit, tree or flower, and to test their value under his own eye. He has given great attention to correct nomenclature, nearly always getting new things from two or more different sources, and bringing them quickly into fruiting or flowering by skillful grafting.

Mr. Pepper's place is about seven miles northwest of Petaluma, with a climate, for Sonoma county, poorly adapted to general fruit culture, less so, perhaps, than any other point so far from the Pacific ocean. At this point the country is open, without tree or mountain, clear to the ever-cold waters of the briny deep, a great rolling tumultuous prairie of hill and "hollow," over which the winds and fogs come rolling and tumbling, sweeping and pressing. The soil is splendid, magnificent—a fine deep sandy loam, warmed with some gravel. The aspect is mostly northerly—which exposure experience will prove best for fruits, and nearly everything else in this State. The situation is on the divide between San Pablo and Tomales bays.

The climate at this particular point is best adapted to apples, cherries, plums, including prunes, pears, and most of the small fruits. A few varieties of peaches do fairly well. Mr. Pepper has done all in his power to better his climate by planting wind-breaks across his holdings north and south. These are largely of blue gum, Monterey cypress and pines. He, as well as his big neighbor across the way, Mr. H. Meacham, strongly favors the blue gum for wind-breaks and shelter. Reasons: It is as good or better than the best for this purpose, and is immensely profitable for wood when grown, and if out for this purpose it at once grows right up again, etc. But it must have room. It robs every other tree and plant near it, except its fellows; they will grow nearer together than most any other trees, and grow wonderfully fast. Mr. Meacham has room for gums (6000 acres), while Mr. Pepper has a little garden-patch of 250 acres. The moral of this is, plant blue or red gum everywhere in this State where there is room for them; also in all waste places, damp or dry, high or low, rocky or nearly pure sand, on "slickens" or moraines; they will grow everywhere. They grow while you sleep, and in treeless regions they will prove the most profitable of crops, but don't try to grow a crop of gums and any other crop on the same land, for you just can't do it. As for wind breaks for orchards and vineyards, I do not believe in their value, and may give my reasons some time.

Value of Under-Drainage.

I did not sit down to write about fruits, fruit-growing, and wind breaks, but about Mr. Pepper's establishment, "Liberty Nurseries." As I said, the soil is first-rate—"fine" with one exception. It is underlaid at a depth of 2½ to 3½ feet with what we in California call "bedrock," a kind of "hardpan," which, on the Pepper place, is, we may say, impervious to water. Mr. Pepper found that in winter, when he wished to plant or dig nursery stock, the soil was so full of water and so soft that he could not work in it, or on top of it, so he had recourse to tile-draining, and he now has the nursery land all drained with tile. He also found that his orchard trees did not show the thrift and health that he thought they should, his idea being that with their roots in the cold, fully saturated soil, and their tops in the warm spring air, the spring growth was slow, feeble, and late, therefore liable to disease. He tiled the orchards and very great benefit resulted at once in health of tree and chance for early cultivation. No one can see these orchards without at once admitting the great advantages of tile draining, even on this sloping, sandy soil, we might say hilly. If of great benefit on such a place as Mr. Pepper's, of what great value would it be in heavier and especially in stiff clay soils? The fact is, there is no soil but what tiling would be of benefit to, except homogeneous, nearly pure, coarse sand of great depth. If the sand is fine and mixed with the least bit of clay, a hardpan or bedrock will be formed in time, not far below the surface, shutting off all under-drainage. The result is, Mr. Pepper on his tiled ground can plant or dig trees at any time during winter, when not actually raining; besides, when warm rains do come in spring, the soil is in condition to absorb them, thus warming up the soil and making spring growth a month or so earlier.

As before said, Mr. Pepper has taken great pride in testing every new thing of seeming value, and has everything sent out as true to name as possible.

The collection of ornamentals on the place is very large. Nearly everything can be found growing there that can be made grow in this

wonderful climate. Five weeks ago, when there, a splendid bed of rhododendrons was in full bloom. These need some shelter over their heads from sun and rain to do their best, and in summer and fall. At the same time camellias and azaleas were in bloom in the open air. D. B. WIER.

Petaluma, Cal., June 3d.

The Department of Agriculture and California Problems.

B. Pratt writes the following letter from Washington to Dr. O. P. Chubb, as we learn from the Orange Tribune of June 1:

Dear Sir: I arrived here May 12th, and after two days spent in seeing some of the many interesting things here to be seen, I called at the Agricultural Department to find out what was being done in relation to our grapevine disease. Mr. Galloway—the successor of Mr. Scribner as chief of that section—received me very cordially and expressed himself as highly gratified at my opportune arrival, for the expert, a Mr. Pierce, from Michigan, whom the Department had engaged to investigate the disease, had arrived in the city the day before and Mr. Galloway said he would be very glad to see me. He went and found him and brought him in, and we had a long conversation on the subject. He is a young man, unassuming in his manner, and I was very favorably impressed with him. He realizes that he has a very difficult task before him and goes with a full determination to do all that he is capable of doing to discover the cause of the disease and a remedy therefor. I was gratified to see the interest manifested by all the department officials in the matter.

When my interview ended with Mr. Pierce, Mr. Galloway said that the Assistant Secretary of Agriculture, Mr. Willets, wanted to see me, and he went with me and introduced me to Mr. Willets, who received me—as you assured me he would—with unusual cordiality. He said he felt a lively interest in the matter of the California grape disease. That he saw something of it during his visit to the Santa Ana valley and saw also the discouraged feeling of the people in consequence of it. He told me that one of the first things he inquired about after assuming the duties of his office was, "What is the Department doing about the California grape disease?" He found that arrangements had already been made to send out an expert. He assured me, and wanted me to assure the people there, that whatever can be done will be, to assist them in this emergency. He also manifested an interest in the scalebug destruction, and sent for Prof. Howard—the head of the entomological section during the absence in Europe of Prof. Riley—to have a talk with me on the success of the different washes being used to kill the bug.

Prof. Howard invited me to go to his office, and we had a long conversation on the subject. He impressed me as being a keen, efficient man and possessed of a good deal of ability. He inquired if application had been made for a patent on any of the new washes, and asked me for my opinion as to the justice and propriety of granting patents on any of them. I told him my opinion was that no patents ought to be granted and gave him my reasons for the opinion. He said that was his opinion and that he would write the Commissioner of Patents requesting him to refuse all applications for patents for bug washes. He wrote the letter, for in an interview the next day with the Assistant Secretary he told me that he approved and signed such a letter.

Mr. Pierce started for California last Thursday, May 16th, and goes direct to Los Angeles, thence to Orange, Santa Ana and Tustin. He will determine where to pursue his investigation after looking the ground over.

Grape-Growers' Meeting.

A regular meeting of the Grape-Growers' and Wine Makers' Association of California will be held on the 18th day of June, 1889, at 11 o'clock A. M. at Platt's hall, San Francisco.

Subjects for discussion: "Practical experiences in maturing wines and the proper age for bottling old wine," Arpad Harszthy and Jacob Schramm. Also the formation of a co-operative union to handle dried grapes.

E. H. RIXFORD, Secretary.

THE STATE BOARD OF SILK CULTURE met in San Francisco Saturday and discussed finances resulting from the Governor's veto of the last appropriation. It was decided to move the office and machinery into cheaper quarters. The Government experimental station will buy cocoons and the reeling will be done by the State Board. A letter from Governor Waterman suggested that the flag made from silk reeled in the State flature be presented to the cruiser San Francisco instead of the Charleston. Some exceptionally fine Japanese cocoons, raised by the public school at Centerville, Alameda county, were exhibited, and silkworm eggs were granted free to the public schools of Alvarado, Decoto, Mount Eden, Alviso, Livermore and Warm Springs, and Washington College and Livermore College.—Oakland Enquirer, June 7th.

SACRAMENTO'S census marshals enrolled 1500 less children this year than last, though nobody imagines that the number has decreased.

SHEEP AND WOOL.

Wool Facts and Figures—No. 9.

[Written for the Rural Press by J. R. F.]

The number of woolen-mills of all kinds (not including fulling-mills) was placed by statisticians in 1840 at 1420. Fully 80 per cent of them were located in the States of Massachusetts, Connecticut, New York, Vermont and Pennsylvania. By 1850 the number had increased to 139, giving a total in that year of 1559, with the mills more generally distributed in the 32 States. The census returns of that year gave the amount of capital invested at \$28,118,650, and the number of hands given employment at 39,252. The value of the product turned out was placed for the year 1849 at \$43,207,545. After 1850, owing to the rapid increase in the manufacture of worsted goods, that industry had to be kept statistically separate from the woolen manufactures. Carpets and hosiery also required separate statistics, which was followed in 1870 by statistics relative to felt goods, woolen hats and shoddy being segregated from the others.

The best informed writers on commercial topics assert with a great degree of confidence that the first decided advance to perfection in woolen manufacture was in the making of flannel goods. The first record of its manufacture being equal to the best Welsh flannels was in 1821, and the mill that turned it out was located in New York. Statistics of that period state that in 1823 about 30,000 pieces of flannels were made near Boston. In 1827 there were three mills near Newburyport that turned out yearly flannel valued at nearly \$700,000. In 1829 the first large flannel factory was established. The owner was Henry Stevens. The mill had a capacity of about 150,000 yards a year. In 1849 two flannel-mills were in operation at Dover, N. H. In 1860, it is stated, the Bay State and Ballard Vale Mills and also the mills of Gilbert and Stevens at Ware, Mass., made flannels in every respect equal to the very best imported; while the shawls, balmorals, fancy flannels, shirtings and opera cloakings turned out at the mills at Waterloo, N. Y., and Laconia, N. H., could not be excelled. The high reputation achieved at that time for our flannels has been fully maintained since.

The first mention of the making of blankets in this country was in 1831, at a factory located in Pendleton district, S. C. The blankets turned out were manufactured of cotton warp and designed for negro use. In the same year a large factory was built near Buffalo, N. Y., for the manufacture of Mackinaw or Indian blankets. By 1860, blankets were made in 19 different States. In that year the number turned out was by census returns placed at 616,400, and were manufactured principally in the States of California, Maine, Massachusetts, New Hampshire and Pennsylvania. Since that year, under many improvements, there has been a steady increase in the quality and also the number of blankets turned out. According to the census returns, there were in the United States in 1860, 1263 woolen-mills, having a capital of \$30,922,654, consuming 83,608,468 pounds of wool, giving employment to 43,738 hands, to whom \$10,153,938 wages were paid. The average annual wages in 1850 was \$205, and in 1860, \$237. The average value of the product per hand was, in 1858, \$1248, and in 1860, \$1496. In 1870 the number of woolen-mills had increased to 2993, the capital invested to \$108,910,369, the number of pounds of wool consumed to 172,078,919, the number of hands employed to 92,973, and the annual wages paid to \$31,246,432. The census returns for 1880 give the number of woolen factories at 2689, of which number 1992 were classed as properly woolen factories (the remainder, 991, were classed as fulling or carding mills); the number of hands employed is given at 161,557, capital invested, \$159,091,869; wages paid, \$47,389,087; and the annual product, \$287,252,913.

According to the census returns of 1870, the following were the leading industries in this country, yielding in the order given: 1, flour and grist mills; 2, slaughter and meat packing; 3, iron and steel manufacture; 4, sawmills; 5, foundries and machine shops; 6, cotton-goods manufactures; 7, woolen manufactures. The returns of 1880 place woolen goods fourth in the list of leading industries.

An Eastern exchange of a recent date says: "Of late years the productive-power of woolen machinery has greatly increased, so that the number of mills or number of sets of cards is no index of the condition of manufacture. For example, in 1870, 8352 sets of cards used only 208,916,928 pounds of all materials, or 25,014 pounds per set; while in 1880, 5961 sets used 276,948,060 pounds of all materials, or 46,460 pounds per set, thus nearly doubling in productive power. Again, in New England there was from 1870 to 1880 a reduction in the sets of cards from 3358 to 2922 (nearly 13 per cent decrease); and during the same period the pounds of material used increased from 116,511,379 to 156,091,549 (an increase of about 33 per cent). In 1880 the great bulk of woolen manufacture was carried on in nine States, and in the order named: 1, Massachusetts; 2, Pennsylvania; 3, Connecticut; 4, Rhode Island; 5, New York; 6, New Hampshire; 7, Maine; 8, New Jersey; 9, Vermont. The following were the seven leading cities in woolen manufacture

in the order named, viz.: 1, Philadelphia; 2, Lawrence; 3, Providence; 4, Lowell; 5, New York; 6, Manchester; 7, Boston. In the same year (1880) 61 per cent of the hands employed in woolen-mills were natives and 39 per cent were foreigners."

In 1860, under worsted manufactures were included, by census returns, all-wool and cotton warp, delaines, challies, bareges, imitation bareges, all-wool and part-wool reps and worsted yarns for carpets and hosiery. Although the above goods were manufactured in several States, yet the large proportion was turned out by three mills only. In 1868, diagonal and other worsteds were added for men's wear. Owing to their rapid growth in popular favor, a decided revolution was wrought in worsted manufactures. In attestation of this, statistics show that in 1867 there were only a few combs running, but in 1880 there were 360 combs, and in 1886 there were 563 in active operation.

The census returns for 1870 show that the number of worsted-mills in the United States was 102, with \$10,085,000 capital invested. They gave employment to 12,920 hands, with a payroll of \$4,368,857. In 1880 the capital invested had increased to \$20,374,043; hands employed to 18,803, and the payroll to \$5,683,027. It is claimed by Eastern dry-goods journals that the industry has continued to increase in importance since the last census returns. In 1885 the *United States Economist* estimated the combing-wool clip of the United States to be fully 80,000,000 pounds below the annual consumption.

Southdown Breeders' Association.

EDITORS PRESS:—At the Eighth Annual Meeting of the American Southdown Association held in the Leland hotel, Springfield, Ill., the reports of the officers showed the association in good condition financially, with two volumes of the "Record" before the public, a third volume soon to be ready for distribution, and the work of compiling the fourth well advanced.

The election of officers for the ensuing year resulted as follows: J. H. Potts, Jacksonville, Ill., president; S. E. Prather, Springfield, Ill., secretary; D. W. Smith, Bates, Ill., treasurer. Three directors to serve for three years each were also chosen, viz.: C. M. Clay of Kentucky (re-elected), John Jackson, Ontario, Canada, and Levi P. Morton of New York.

To members of the association the price of the "Record" was reduced to \$2.50 per volume. The price to non-members is \$5 per volume.

The entry fees for animals bred in America are as follows:

Owned by members of the association . . . \$1.00 each
Owned by non-members of the association 2.00 each

The entry fees for animals imported from Great Britain or Ireland since April 1, 1889, . . . \$5.00 each
Animals imported prior to April 1, 1889, the same as for animals bred in America.

Entries of the dead ancestors of imported animals to complete pedigrees . . . Free
Transfers of ownership25

The association was never in better condition for efficient service in promoting the sheep-breeding interest of the country than it is to day.

PHIL THURTON.

Springfield, Ill.

POULTRY YARD.

Various Topics.

O. J. Albee gives the following notes in the *May Cackler*:

Keeping the Chicks Warm and Dry.

I think if Mrs. Geo. E. Duden had not furnished her broods with the warm coops with dry floors to run in when they felt the need, she would not have had a very healthy flock at the close of the storm. Chicks seem to enjoy a light shower of rain as well as ducks, running out and scratching as if their life depended on their working over just so many feet of the flower-bed before night; but if you are observing, you will see them frequently run in the warm coops, as if to warm their little feet a few minutes, then out and at it again. I claim that chickens can be raised with the least trouble and loss during our rainy season than any part of the year, always provided you give them warm coops with dry floors, keeping free from vermin. You will scarcely ever have a droopy chick. I keep the hen confined all the time, closing the coops at night so the little ones cannot come out until I feed. Judging by myself, I think they ought to have a full stomach before starting in on the day's work. If Mrs. Duden will try about an inch of dry earth or sand on floor of coops, she will find it preferable to straw; it absorbs the moisture, is also a deodorizer, and does not make a litter around the premises.

Green Food for the Chicks.

The plan I have followed this season so far has given me as little labor, with as good, if not better, results than ever before. After the first rains I sowed oats in a small inclosure of about 30x50 feet of ground; when about six inches high I began cutting, and it has furnished my flock with green feed, both large and small, from one brood along up to 400 chicks. I give brooder chicks all they can eat cut fine at least

three times per day, the feed just before they go to bed; old fowls supply a single case of diarrhea this season. thinning out yellow globe beets for food, of which they are very fond. For a change, cut alfalfa later; have cabbage growing; when onions get down within reach of the average poultryman's purse, I feed them chopped fine with meat twice a week; with the sprouted barley they do very well. It is all very well to talk of giving fowls the run of the ranch where there is but one variety kept, but when it comes to five or six it is quite another matter. Again, I have seen ranches that if the fowls depended on the free run of it for green feed they would have short rations, I assure you—not a spear of anything green from about the first of July to December; no use talking, fowls to do their best must be furnished with plenty of green feed.

Patching Eggs.

If eggs for hatching get slightly broken or cracked, don't throw them away in disgust. I recently received eggs from the East, and one being broken badly had wet the bottom of the basket so that the other eggs became glued fast. In trying to separate them it left a piece of shell, but did not break the inner skin. Being on the small end, I pasted over it a piece of paper and put under the hen with the rest. Result, a nice strong chick from the broken egg; have done the same thing in incubator, but never before under a hen.

EGGS VS ORANGES.—While eggs are often, though vulgarly, called "hen fruit," the raising of hens has never yet been classed as a branch of horticulture. It may not be amiss, however, since the public mind is so much bent upon the subject of fruit, particularly citrus fruit, to institute a comparison between the humble hen and the stately orange trees. An orange does not bear comparison with an egg in respect to intrinsic value as food, and the market price of eggs in San Francisco is usually greater than growers can command for oranges; the hen comes into bearing at the age of six months, without grafting, while the orange tree does not bear short of six or eight years from the seed. The hen is never injured by the frost, requires no irrigation, no spray for insect pests, flourishes on any soil and needs no cultivation. None of these claims are to be made for the orange trees. A hen will lay her weight in eggs many times over, and finally sell for a good price as a "spring chicken," long before an orange tree is anything but an expense to its owner. And yet the hen is greatly neglected in California as a source of profit. The San Francisco market is largely supplied at this season of the year with eggs and poultry brought several thousand miles from Eastern points.—*Iron Echo*.

THE APIARY.

The Bay State Reversible Hive.

EDITORS PRESS:—In answer to your correspondent who asked some time ago which is the best hive, I will say that there are two types or classes of hives, both of which are best; and from a dozen to twenty modifications of these, all of which are best; that is, in the opinions of those who designed them or are using them.

While the standard Langstroth is the most generally used and is very hard to beat, I suppose that Alley's Bay State Reversible hive is its closest rival, and is perhaps likely in the long run to come out ahead. The principle of the hive consists in eight closed-end standing frames clamped tightly together by means of iron rods which pass through the projecting side boards,

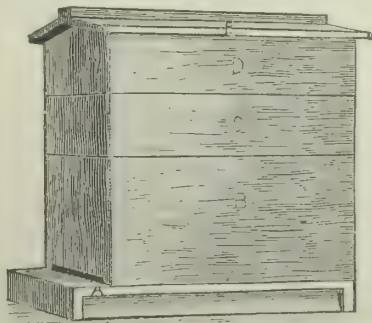


FIG. 1.—Exterior View of Bay State Hive.

one at each end just without the ends of the frames, and are provided with wing-nuts that are screwed on to the end of the rod. A good set of measurements is the following:

End bars (which are to be nailed to top and bottom bars) 9½ inches long, 1½ inches wide; and Top and bottom bars, 16½ inches long, 13-16 inch wide; both ends and tops and bottoms ½ inch thick.

This gives a frame whose dimensions are the same as those of the simplicity Langstroth. The end bars are to project just 3-16 inch beyond top and bottoms, making twice 3-16 or ⅓ inch to deduct in computing measurement of frame.

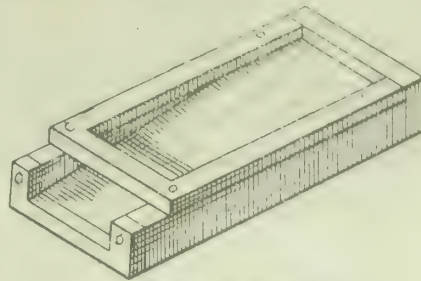
For "super," use stuff ½ inch thick for end bars and have tops and bottoms plump 17 inches long. If you cannot conveniently get ½ inch stuff, change the measurement given above to plump 17 inches for length of tops

and bottoms for brood frames, so that both stories will be of a length.

Have width of end bars of super frames 1½, 1¾, or 2 inches wide to suit width of your sections for comb-honey, but for extracted honey, have them just like the brood frames and interchangeable.

The sides of hive have width equal length of end bars and project beyond sufficiently far to give the rods a secure hold. The rods nearly touch the end bars.

The cover and bottom of hive are in width equal to width of eight frames plus thickness of the two sides, and are enough longer than hive for alighting room. I like to make cover and bottom interchangeable by having one side of the board fitted thus:



Improved Bottom-Board.

Saw two parallel cuts into one end of board, or rather into the surface at one end, and chisel out a slanting groove or gutter. Then tack or nail a rim all around one-half inch deep on which the hive is to set. This keeps the bottom bars over three-quarters inch from the bottom of the hive, which is good, especially in hot weather. The bees alight at entrance of the groove and run in under the rim just mentioned.

The sketch of the bottom which I use shows the way I apply end cleats to prevent warping. If the hive-maker choose to take the trouble to

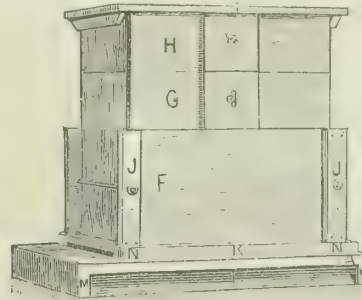


FIG. 2.—View of Broodnest Bottom-Board, Two Sections and Honey-Board.

make it of two boards fitted together at side edges, he can make them as wide as the length of bottom and thus have the grain of the wood run crosswise, in which case the side strips may be changed to strong cleats nailed on as is the back cleat. Individual ingenuity will suggest these minor matters. End-bar projections rest upon front and back strips, and sideboards rest upon side strips. I don't know that my manner of making cover and bottom is as good as



FIG. 3.—View of Bottom-Board, Brood-Chamber and One Case of Sections. One Side of the Section-Case and One Side of the Brood-Chamber are Removed.

Mr. Alley's. Never having incurred the expense of freighting sample hive here, I cannot say whether his covers and bottoms are interchangeable or not.

This hive can be reversed either in a body or frame by frame, and can be handled very rapidly when full. Unscrew the wing-nuts a little and move out the side board slightly. Remove any frame you like, and in replacing it, slide it down between the others, thus pushing the bees out of the way. Use a little care in setting it down when it reaches the bottom; any experienced bee-keeper knows better than he can explain how to avoid crushing bees. Rods of ½-inch iron. The hive put together looks much as appears by the engraving given here with, but the bottom board is different from the one I have described.

The hive is the invention of Henry Alley, editor of *American Apiculturist*, Menham, Mass. Mr. Alley perfected his invention two or three years ago, and gave it freely to bee-keepers without a patent.

The measurements I give are not quite identical with his own. I do not know just what his measurements are. The hive secures all the modern methods of manipulation and is as simple in construction as any hive can be.

If you want the hive to be 20 inches long, outside measure, increase length of top and bottom bars to 19½. The 3-16 inch projections of end bars secure ½ inch bee-space when super is on.

Bee-keepers may, in my opinion, consider Mr. Alley their benefactor for giving them so good a hive as this without a patent.

Gonzales, Cal.

A. NORTON.

ENTOMOLOGICAL.

"Where Moth Doth Not Corrupt."

EDITORS PRESS:—The Bible would have us believe that but one place is free from this all-pervading nuisance. In this belief every fruit-grower, be he ever so skeptical otherwise, will coincide. The moth possesses that peculiar faculty in its fullest degree of "getting there," and that on schedule time; nothing baffles him. Naturalists tell us that the male moth will scent the female, though she be several hundred yards distant and at the bottom of a long chimney. Of what use is it to try and conceal your choice fruit from so keen a "scenter"? I have tried various ways to baffle him, but he has always come out on top, and now I want a little information from some one whose experience with Mr. Moth has been the reverse of mine. I put dried fruit up in gunnysacks—moths got it. I put it in tight barrels and sealed up every crevice—moths got it. I put fruit in muslin sacks, tied up securely—moths got it. I put it—the fruit—in paper sacks sealed up—moths got it. I sulphured the fruit before I packed it. The moth that takes this abiding interest in my dried fruit is, more properly speaking, a fly—a little insignificant black fly, with purple wings; a pigmy among flies, but he's like the fly in the "apothecaries' ointment"—he spoils the whole. His larva is about an eighth to a quarter of an inch in length, a sixteenth of an inch in thickness, and is very white. What long handle has he to his name? for it's sure to be the opposite of his size and only equal to his destructive width. Next season I shall try tin cans. If then he succeeds in insinuating himself into my dried fruit, I shall quit the business and depend upon my neighbors, who have their dried fruit in open boxes, barrels and sacks, and are exempt from the nuisance.

And again, I want to know if a seedless apple will be free from the ravages of the codlin moth? Has any one tried the variety in an infected section? If so, what was the result? I don't want to give up my apple trees. A few years ago we sang:

"Lo! sweetened with the summer light,
The full-juiced apple waxing ever mellow,
Drops in a silent autumn night."

That was before Mr. Codlin Moth coddled the apple and got the "drop" on it. Now we wail:

"Lo! bored from calyx to the seed,
A mass of filthy matter
The apple, coddled by the moth,
Drops—silent to the gutter!"

That is, the apple is silent; the purchaser is generally the opposite. We were promised a friend in the lace-winged fly, but he evidently became satiated with the fullness of his feed and left for other shores, as I have not seen him, though I do see a fuzzy fly, with a rapier-like tongue, after the red spider. Who is he? But to get back to Mr. Codlin—is there no remedy for him? Is he to be one of those "yesterday, to-day, and forever" visitations? He is a bad fellow, but a saint compared with Mr. Woolly Aphis. Mexicans tell me that in Old Mexico fine apple orchards were once the rule, but the aphid took hold and they became as a tradition—a thing of the past. Mr. Rhodda of Grass Valley and Mr. T. R. Smith of West Point tell me that the "stinking ants" of the woods will carry off every one of the aphid, but when I asked, "Will they clean the roots?" they could not tell. Here a tree, and there a tree, the old apple trees are going, while the young trees refuse to grow in their place; not so much on account of the aphid as the apple blight. The bark turns yellow and then covers over with a black substance like smut, and the tree is gone. Who is the Moses that will lead the apple-grower back into his former Canaan, where

"Every prospect pleased him and only man was vile."

A few years since I was tempted to go out of the honey business. Robber bees and moths undid all my work and I had less than nothing for my labor; but I got in the Italian bees, and presto! the whole business changed; the robber from the woods found one ready to do him battle, and in every instance the Italian came off conqueror. The moth's eggs no sooner matured and started out on a search for comb than he was seized and carried out. The cool hours of the day, spring showers, or distance to bloom did not deter the Italian; in consequence, a stand of Italians would put up 250 pounds of comb honey, while the adjoining stand of black bees starved and died. Can the codlin moth and woolly aphid be met in the same way? Is there no variety of apple stock exempt from the attacks of the aphid? Would a seedless apple be free from the codlin moth?

Murphys, Cal.

E. H. SCHAEFFLE.

THE marble statue of the goddess Pomona, presented to the city of Pomona by Rev. O. F. Loop, will be unveiled on the Fourth of July. It is five feet high and is a copy of the statue exhumed about 40 years ago and now in one of the large galleries of Florence. The original is supposed to be 2400 years old.

THERE are at Los Angeles two Benedictine abbots, who are Indian missionaries. It is their intention to erect a monastery and school at San Bernardino.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Butte Mt. Pomona, Masonic hall, Yuba City...June 29
Sonoma Co. Pomona, Santa Rosa...July 17
State Grange, Sacramento...Oct. 1

Oregon.

Lane Co. Picnic, Stafford...June 15

Some Things in Our Grange Edition.

In our Grange Edition to lay the following matters of interest are mentioned at more or less length:

To be Effective, Suggestions for New Granges, A Compliment for Our Oregon Department, Bro. F. B. Logan's Work, The Grange in Washington Territory, From Woodburn, Short Mention, Oak View Grange, Welcome from Salem Grange, Response by Bro. Sample, Condition of the Farmers as I Have Found Them, On the Wing, Granger Campers.

State Grange Meeting.

We have not thought it advisable to publish much considering the next State Grange meeting in connection with National Grange until there was a surety that the National Grange would be held in California. Brother Moore's communication in our last issue presents some apparently good arguments for doing away with the regular holding of our State Grange meeting.

So far as we know, Bro. Talbot of Tulare (as long ago as last March) was first to suggest the holding of both sessions in conjunction. At first glance it seemed a fine idea. We are now, however, aware that there is much difference of opinion on this subject. Some of our oldest and best Patrons accord with Brother Moore in his views. But a good deal of reflection on the matter has confirmed us in the belief that we cannot afford to give up holding a "regular built" State Grange session, and that at the time set by the Constitution and at the place designated by the State Grange.

The strength and beauty of our State Grange lies much in its educational, social and fraternal features and influences. Matters are discussed in our subordinate Granges during the year and questions that arise are laid away to be finally disposed of at the session of the State Grange. Essays, addresses are written, and even speeches are more or less prepared for the State Grange. It is the popular annual meeting of Patrons and Matrons for conference, to exchange greetings and ideas, and it fills a large place in keeping life and interest in our Order in a manner not otherwise provided for.

The touching of hearts, hands and minds of four or five hundred representative Patrons, gathered from one end of the State to the other, at our annual State assemblages, and the inspiration gained thereby through the general transactions, discussions, instructions in secret work, conferring of degrees and the good time had generally, returns an influence to the subordinate Granges throughout the State that cannot even for one year well be dispensed with. To attempt to hold such a session a week before the National Grange opens, we think would be largely a failure, even if a fair attendance could be obtained. But we do not believe that more than half the usual number would attend under such circumstances.

The National Grange session usually lasts ten days. To commence to hold the State Grange a week before, or even a few days earlier, would require members and visitors to be absent from home too long a time. Many would find it so difficult that they would only attempt to spend a week or ten days in attendance. Any Patron can readily imagine that most Patrons would forego a part, or the whole, of one session of the State Grange rather than miss that of the National Grange. Therefore the State Grange would surely be the one to suffer.

Could not the Order better get on without the National Grange session than without a successful session of the State Grange? It is a question worth considering. To be sure, there are some who cannot well attend both who may stay away from the State Grange, but are there not, on the other hand, an equal number who would find it more convenient to be away from home at the time of two occasions better than to be absent from two to three weeks on one occasion?

As far as railroad fare is concerned to a large majority, the total expense of attending two sessions at Sacramento will not amount to so very much more than the railroad fare was last year to Tulare, owing to the more central position of Sacramento to the Grange as a whole.

The election of State Grange officers occurs this year. For this as well as some other reasons there should be a large attendance. There should be plenty of time for deliberate action.

There are a great many who have not yet received the sixth degree. It is best that they should take the same in ample form in the State Grange. Sacramento being a central location, there ought to be many who can and will afford to come and take that degree, and be better prepared for receiving the seventh at the National Grange.

On the first of October there will yet be considerable work to be done to prepare to make the best of the National Grange session. If we hold a good State Grange session then, the Patrons of our own State will be more enthused and more likely to return to Sacramento

to the National Grange with a larger number of enthusiastic visitors, in our opinion, than if we do not hold the State Grange at the time and place appointed.

These, however, are only our individual opinions, expressed with sincerity, and, as we believe, for the good of the Order, and in nowise for any personal interest or gratification. Let us all try to make the most we can of our State gathering. The National Grange will not like to meet but once on our coast. Can we not afford the power necessary to do it justice all extra? Cannot we make the coming of the National Grange the opportunity for holding the largest and best State Grange session of all?

San Jose Grange.

About 30 members were gathered at the hall of San Jose Grange on the 8th inst., when the Master sounded his gavel to open the meeting of the day. There were representatives from Evergreen, Los Gatos, Santa Clara, Mountain View and the Santa Cruz mountains. Numerous bouquets of bright flowers graced the tables, and several opening buds of the great flowered magnolia made each a bouquet of itself.

The routine work was speedily completed. There were none sick or needing help, and no pressing business awaited attention.

Capt. Frank Dunn presented resolutions of sympathy with the Pennsylvania sufferers, which were adopted, and \$63.50 was ordered paid over to Mayor Boring for the relief fund. Were it not for the fact that several members had previously contributed through other Orders and in other channels, the amount would have been much greater.

Mrs. Wingate, a member of the Committee on Library Work for the day, read an article entitled "How Mrs. Wiggins Painted Her House," which might be taken as a warning that when so important a job is before the consideration of the household, it is more prudent to employ a professional painter than to attempt to economize by doing it yourself.

No more business demanding attention, the regular session closed. A Mr. Frazer, representing a firm of fruit-dealers in Minneapolis, was introduced and explained to some extent the favorable nature of his city as a market for fresh fruits. Minneapolis and its neighbor city, St. Paul, had 400,000 inhabitants within a circle of 20 miles, and in all the country round about there is so little fruit raised that it may practically be said there is none at all. He was questioned as to prospects, rates and other matters, and kindly thanked for the information.—*Mercury*

Frisbie-Shriver Nuptials.

Merced Grange had a quiet wedding within her gates on the 1st instant. The contracting parties were Bro. B. F. Frisbie of Yuba City Grange and Sister Edith S. Shriver, Flora of Merced Grange. Sister Shriver is a daughter of Mrs. Ella S. Elliott and stepdaughter of W. E. Elliott, Past Master of Merced Grange. A large company was present, the Secretary having notified the members there would be a feast and unusual business on that day. The wedding was a surprise to the Grange, as only a few old friends of the bride and her mother were notified. Sisters Atwater, Healy and Ostrander assisted Bro. and Sister Elliott in entertaining their friends, it being understood there would be no cards or presents. An abundance of flowers and evergreens decorated the hall, and all the appointments of the wedding were as choice as could be wished. The wedding march was well rendered on the organ, after which the ceremony was performed by G. W. Lyons, pastor of the First Presbyterian Church of Merced. On the conclusion of the ceremony, the guests adjourned to the banquet room, where an elegant dinner was partaken of. Worthy Master M. D. Atwater in behalf of the Grange presented the bride with a solid silver berry spoon, and expressed regret that Merced was to lose one of her best Grange workers.

After receiving the congratulations of the company, the happy couple took the train for their future home in Sutter county.

A VISIT TO OREGON.—Our recent visit to the State Grange at Salem and some other parts of Oregon was one of much satisfaction to ourselves. We owe a great debt for the kindness of Patrons and many others whom we met. We were more than pleased with the country, the towns and the cities visited, and our intercourse with the people met. We are more than ever convinced that Oregon and Washington Territory have a large share of prosperity in store for them, and shall take pleasure in speaking in further mention of matters of interest observed during our very delightful journey to and sojourn in our north bordering State.

THE NATIONAL GRANGE.—From a late letter to Worthy Master Overhiser from Bro. Woodman, Sec'y of the Executive Committee of the National Grange (although not quite sure) we certainly expect that the next National Grange session will be held at Sacramento. Definite word will soon be expected from the N. G. Committee.

THE DARDEN MEMORIAL FUND amounts to \$1185.95. Massachusetts leads the list of States with \$349.40, and New Hampshire is second with \$234.31.—*New England Farmer*.

Sharp Points of a Thistle.

MESSRS. EDITORS:—Sacramento Grange held one of her rousing, old-time meetings to-day; in fact, all of the meetings lately have been old-time ones. I like enthusiasm because it bears the stamp of sincerity. Such a perfect bouquet of humanity as the young and old formed to-day, one rarely has the pleasure of seeing. May and December and June and January were there, and the hard lines of relentless age were so softened by the magic effect of wreathing smiles it certainly was hard to tell who was May or who was December. I enjoy witnessing the mingling of youth and old age. I like to see youth pay homage to old age, and I like to see old age reciprocate.

To-day we had two new acquisitions, E. Caselman and Dr. William Wood, a large vineyardist. I say large vineyardist, meaning his vineyards contain many broad acres; still if any reader construes this into meaning our brother, who is known far and near by the endearing name "Doc," is personally large, he can do so quite properly, for the genial doctor has evidently been bent on acquiring all the diameter he has found of late lying around loose, from the inflated appearance of his jacket.

Our popular brother, Robert E. Greer, who is at present connected with the University of the Pacific, attended Grange yesterday and spoke in his usual smooth, pleasing way. Whether our genial brother has actually served out his term or was pardoned by the Governor is simply a matter of conjecture.

Sacramento county Grangers are busily engaged in farm duties at present. The Grangers here believe in working like the ant in summer. They believe in laying up a store while the sun shines, for rainy days. They are right. I can't see how any mortal who lives on love and poetry and rose-leaves in the summer can have the "nerve" to expect corned-beef and cabbage in the winter. This world owes no one a living, and if you get one out of it, you have got to twist it out. I notice those who studiously avoid getting warm in the summer invariably shiver all winter. Who cares if their teeth do chatter? Not Edwin Thistle. When I see a woman shivering in January, I say to myself, "Oh! I don't pity you, because, during the summer, you were too lazy to darn socks." When I see a big, strapping fellow shivering in January, I say to myself, "Oh! I have no pity for you, for during the summer you were too confoundedly lazy to saw wood." If a man will only catch hold and pull and shove and twist a little, in this glorious land of sunshine and prosperity, he need not shiver in winter. Chattering teeth and bumping knees come because the owner wants them. They are self-imposed.

If I am correctly informed, two of our prominent young Grangers will be united in marriage this week. I think the above trustworthy, for the most advanced symptoms were apparent a year ago. The action of these wide-awake Grangers should be applauded. There are many more in Sacramento Grange who ought to do likewise. When a young man reaches the age of 30 or thereabouts and has not confidentially told Betsy Ann he adores her, and tries to capture her for keeps, he ought indeed to be pushed head first through a spanking machine, with the spanker decorated with hob-nails and driven by hydraulic pressure, with the distinct understanding if he does not mend his ways and do the right thing, the dose will be largely repeated at regular intervals until he does.

The average young man is evidently looking for a wife who is rich as Ceres, lovely as Venus, wise as Minerva, stately as Juno, graceful as Hebe, with an education sufficient to paralyze a college professor, and good as pie. And, on the other hand, many a young lady expects her Charles Algernon to be a beautiful conglomeration of Apollo, Balder, a roaring lion, a Socrates, a Granger, a Hercules, a Byron and a saint. When all of the above qualities concentrate in one poor mortal, they kill him off early in life.

When I selected Sister Thistle, I did so because I thought her as good as pie. She is as good as pie, not pie fallen from the crust, either. I walked up like a little man, threw the dice, and took the consequences. And I am far from being sorry. To be sure, after we acquired Bobby it looked a little blue at times. I don't regret having acquired him, for some day he will be, I hope, a great baseball pitcher. I hope he will be proficient enough to strike out 10 men, make 11 assists, 12 put-outs and four three-baggers, without an error in one game. Jupiter Olympus, what a record that would be! How it would cause sunshine to pour into this withered heart! Like Homer, seven cities would claim Bobby's birth. They would do him in clay. They would search far and near for Praxiteles. Let the day come. Hail Columbia, happy land! Faithfully and fraternally,

EDWIN THISTLE.

WHEATLAND GRANGE STRAWBERRY FESTIVAL.—The attendance at the strawberry festival of Wheatland Grange on the 1st inst. was not up to the standard. The ladies were in the majority, from which we may infer the attention of the Granger was needed at home to look out for his ripening crops. Nevertheless those who had assembled were in the right mood to enjoy themselves, and they did. Lunch was served at 12 o'clock, and such a lunch made up of the finest in the Grangers' culinary department and garden. Fully an hour was spent in lingering over the choice desserts of strawberries and

cream, ice cream and early fruits. Shortly after lunch all assembled in the hall to participate in a short program which had been prepared. It was composed of singing, recitation and speaking. One thing noticeable, each speaker could not refrain from speaking of the lunch; it was a hard matter for them to choose language to do justice to it and the fair ladies who prepared it.—*Four Corners*.

Babies' Rights.

A Reply to Bro. Edwin Thistle by a Sister Granger.

Being a mother of two children, I wish to reply to Bro. Thistle's letter which appeared in your issue of May 18th.

I coincide with Bro. Hancock in his statement that we are producing some of the finest babies of the land; and I also maintain that to make them the men and women of the future, we must rear them carefully and with much judgment.

If we would have them strong and blest with good health, they must have proper attention in infancy and childhood.

Knowing well Bro. Thistle's great desire to possess a promising family, I feel it my duty to give him a word of caution. I fear he may not sufficiently understand the laws laid down for babies; and through his enthusiasm for the Grange, may expose Bobby and possibly ruin his health for life. I thoroughly believe in enthusiastic Grangers. I have been a member of the Order for several years, and am deeply interested in it. I feel that much good is to result from the meetings, and that the expression of opinions and ideas by brother and sister Grangers, who speak and write from a lifetime experience, will have its benefits. But I do not believe in being so enthusiastic as to neglect or misuse the babies, our future Grangers.

Now, I think, Bro. Thistle, to take Bobby to the Grange, a distance of seven miles, expose him to the cold, with a feverish and swollen gum, caused by that new tooth, was all wrong. In fact it was cruel. You should have more consideration for your Bobby, and, above all, for your wife. It is she who will have to sit up until midnight, trying to subdue his cries of pain, and all the while you dream and snore.

If you must attend the Grange, as a loving husband you will, of course, want Sister Thistle to accompany you. Then open your purse and hire a nurse for Bobby. Leave him at home when the next tooth appears, and with such careful attention all through his childhood, he will grow to manhood with the sentiment: "My kind, generous, noble father."

Roseville Grange Advancing.

Bro. E. L. Hawk, Master of Roseville Grange, was in this city last week and informs us that his Grange is prosperous. The visit of Bros. Overhiser and Flint to this Grange last year awakened quite an interest among the members, which has been kept up since. The Grange has started a library for the use of its members. Some of the brothers built a bookcase to hold the books, ten volumes of which were presented by Bro. Hawk. They expect to increase their stock of literature, both by donation and purchase by the Grange, and hope, before long, to have a well-selected library which will be both useful and entertaining to the members.

Probably in no way can a Grange awaken more interest than by the purchase of a library. A well-selected collection of agricultural, horticultural and stock literature will be of great value to the members, who should be permitted to refer to them at all times. The sisters should also be consulted in regard to books that will suit their needs and desires.

We hope Roseville Grange will enlarge upon this new departure, and strive to make their library a valued adjunct to their sphere of usefulness.

Bro. Hawk informs us that four new members were added to the roll at their last meeting, and literary exercises are being taken up with lively interest by the members.

The Interstate Picnic.

The Williams' Grove Interstate Picnic is advertised to open August 27th and continue until September 1st. During the great storm, which flooded many valleys in Pennsylvania and occasioned a great loss of life, the Williams' Grove picnic grounds were completely submerged and several of the buildings swept away. All the bridges were also carried down the current.

As there is about three months' time in which to repair the damage, we presume that the loss will not occasion a change of date.

Williams' Grove, where the great picnic is held, is in Cumberland county, Pennsylvania, about three miles south of Harrisburg, on the Susquehanna river, where large grounds are laid out and buildings erected for the gatherings each year. The coming meeting will be the sixteenth annual gathering at this grove.

Previous to the flood, Bro. R. H. Thomas reported that never in any former year had there been as great a demand for space for exhibits so early in the season. This picnic has a national reputation as being the largest gathering under Grange management in the United States, and we think that, so long as the ground is left in the grove, the picnic will be held, as largely attended and as thoroughly enjoyed as ever.

The Elective Franchise.

Its Extension to Woman a Political Necessity, and the Greatest and Most Urgent Demand of Our Times.

[Written for the Pacific Rural Press by FRANK WILLARD KIMBALL.]

How to govern the world is every day becoming a more serious question. How to procure wise and just legislation, to enforce law and correct existing abuses and corruptions, and to lift our political life out of the "mud and mire" into which it has sunk, is a question so intimately connected with the progress or retrogression of this Republic—nay, with its very life or death, that it should challenge the earnest consideration of every thinking and patriotic American. The success of our Government has been from the outset so phenomenal and grand that its origin and nature have come to be surrounded, in many minds, by a profound mystery. Consequently our people have come to believe their institutions ideal, and have so allowed their opinions to be molded by the praises of other peoples and nations that they have been blinded to the needs of internal improvements and the danger emanating from this neglect. In fact, the eulogy upon our lands and institutions has become so common and incessant that the American mind has reclined to bask in their pleasant sunlight and quaffed its sweet ambrosia until it is intoxicated—thoroughly intoxicated—and a willing recipient of flattering words.

The pulpit as well as the press has been susceptible to the baneful influence of these cajolers and vie with the political orators in extolling the glory and excellence of our country. And I wish to say right here that if ever there was a time in the history of this Republic when it was imperatively necessary for the public press to stand in the old ways and scrutinize present tendencies in order to keep the course of the Republic straight and upward, it is now. But on all occasions they exert themselves to demonstrate the enormous advancements of our land. It thus seems as if this were the only important knowledge, and that this must be imparted to all, even from childhood. Although this is an indisputable fact, it should not be forgotten that no country is beyond the limit of danger. We, as Americans—the descendants of the "first-born of liberty divine"—have been resting too much upon the laurels and memories of our fathers; and, although the American nation has been especially favored by Fortune, and it seems she herself had made this country her most beloved abode on earth, and the people of the United States her special favorites, it ought to be intimated, yea, emphasized, that it requires greater skill to preserve power and glory than to acquire them. It would have been a far more difficult strife for Alexander the Great to have retained the sway of the world than it was to conquer it.

When we study the history of those nations which have risen to power and glory, but afterward have fallen into insignificance or nothingness, we always find reasons and causes why they did fall. But their history need not of necessity sadden or discourage our hope for the permanence of the American Republic, for their study reveals the fact that nations have perished only when their institutions have ceased to be serviceable to the human race.

A Necessity.

It is imperatively necessary in a republic like ours, where the sovereign power rests in the people, that every adult citizen of sound mind, and innocent before the law, should have the right to express opinions upon public affairs. If this right be denied or abridged, for reasons aside from ignorance, immorality or crime, it is thwarting justice, and weakens the structure of our national fabric.

It is thus fair and right that those citizens who are expected to obey the laws should have a voice in making them, and that those who are required to pay taxes should have a voice as to the amount of the taxes and the way in which the tax money should be spent.

Woman

Is subject to Government. Her consent has not been asked. She has never consented to a single law under which she lives. She has had rulers placed over her in whom she has had no choice. Because she is governed she ought not to be voiceless and impotent when constitutions are framed, laws enacted, or rulers chosen. Her weal or woe, and the weal or woe which comes to her children through good or bad government, is quite as important as the good or ill coming to other classes through the same source. Government means to woman just what it means to man, and in the language of that most able advocate of woman's ballot, Miss Alice Stone Blackwell, "the general argument for woman suffrage is the same as the argument for having a republican form of Government, rather than a monarchy."

Injustice.

To deny the ballot to one-half of the citizens of the United States, to tax them without being allowed a participation in the affairs of government, to try them in our courts of justice (?) by an opposite sex, for the violation of laws made without their assent, with no appeal except to their opposite sex, and for crimes over which this sterner sex should have no jurisdiction whatever, is a gigantic and unconstitutional injustice, a flat refusal of a right, claimed

by our revolutionary fathers, and which subsequently dissolved the colonies from the mother country, and thus established our liberty and freedom. If this boasted liberty be anything but a sham, if this coveted freedom be nothing but a reality, if this proud independence gained for us by eight long years of sacrifices, privations and almost unendurable hardships our forefathers bore so courageously in the brunt of battle be worthy the name of the American people, then why in the name of justice and civilization do we longer refuse to clothe the women citizens of this great land with the political rights which are theirs by a lawful heritage?

If it be important under the form and theory of our Government that the ballot be secured to the male citizens of this country as a proper safeguard for those so called "inalienable rights of life, liberty, and the pursuit of happiness," then it is equally important that women citizens be vested with like weapons for their protection.

A Strange Theory.

But we have gone on a strange theory that the fact of sex, and not the facts of intelligence and morality, should confer the right of franchise; although an ideal system of suffrage would be one in which neither sex, nor physical power, nor anything but patriotism, intelligence, and morality, were the conditions.

To deny the ballot to one-half of the people of the United States, who are recognized as citizens by the Constitution, is an injury to the country if those excluded have at least the average virtue and intelligence of the voting class. I claim that the women of the United States are in intelligence the equals of, and in virtue and good intentions, superior to, the men, and that their influence at the polls would purify elections and give us a better class of public officials. The State would, therefore, be benefited by their votes. It can be insisted to-day that women need the ballot for self-protection while the laws exist in so many States, putting them under disabilities as to property, inheritance, business, and even the custody of their children; and from every reason which may be urged in favor of giving men the ballot, an argument may be shown in favor of woman suffrage.

Should any one favor a restricted ballot, let such restriction be upon a basis applicable to all citizens. But to unjustly and unconstitutionally exclude woman from the franchise on account of sex, without regard to her qualifications for its uses (when the right of suffrage has been extended to the ignorant negro, which, by the way, I consider one of the most fatal acts of this Government; and when we also allow the ignorant foreigner, not in sympathy with our ideas or our institutions, to vote on his *intention paper*), is a flagrant outrage and the most crying shame in our land. As for the unconstitutionality of depriving women from the rights of the franchise, I refer the reader to the following:

Constitutional.

Section I of Article XIV defines citizenship in this manner: "All persons born or naturalized in the United States and of the State where in they reside."

The fifteenth amendment declares: "The right of citizens of the United States to vote shall not be denied or abridged by the United States, or by any State," etc.

You ask me what this means? It means a government of, by, and for, the people. It means the full, free, and never-to-be-questioned privilege of every man and woman citizen of this country to arm themselves with the ballot. Thus, by every principle of fair interpretation, the fairer sex have exactly the same right, constitutional and otherwise, to claim the power and use of the ballot, as the male citizen.

As the world moves on; as civilization advances, and progress is our guiding star, that right will be acknowledged, and their enfranchisement ensue. "Justice sometimes sleeps but wakes again."

Justice Sleeps.

When the Inquisition compelled Galileo to renounce his doctrine of the motion of the earth—a truth undisputed now-a-days—the right was strangled and justice slept. That grand old man, Socrates, was charged with disbelief in human gods, and then with the guilt of corrupting the minds of the Athenian youth (though his life was purity itself), and his belief in God was firm, was condemned to die by judges long ago forgotten; he drank the fatal hemlock with composure, and the white soul of Socrates took its winged flight while justice slept. To day one-half of the citizens of the United States—the half to whom, above all others, we must look to for the higher sentiment which precedes and sustains social reforms—are shut out from any effective part in public affairs.

Justice is sleeping. But grand and glorious will be the days when the goddess awakes in our otherwise favored land.

Women in War.

Some contend that if women obtain the same political rights as men they should be compelled in everything to do the work of men, for instance, to go to war. Now while God has made woman fully equal to man as far as physical faculties are concerned in everything except what is called brute force, yet it can be safely depended that she will never be needed to fill a place in the ranks of battle, although she is not without value to her country in the time of the rattle of musketry. Any one who

wishes to consult history will find that woman values country more than life; and that her labor, time, devotion, courage, zeal, perseverance, and overpowering conscience, have generally given an impetus and an impulse to the patriotism of the men who have led armed hosts to victory. Was not this the case in the War of the Rebellion? Did not our mothers leave their homes, their fortunes, and their loved ones, to follow the "star-spangled banner" on the bloody fields of carnage, that they might soothe the pain of the mangled hero who died that his country might live? Other facts could be mentioned, as Joan of Arc, Pauline Cushman; but enough has been said to sufficiently prove that women are as valuable citizens as men, either in time of war or in peace. Through all these years of the national life of our republic, they have been loyal, brave, and true. They have, by their patience and fidelity, their earnest endeavor, and unflinching courage, helped to create this grand civilization of ours; and hence, while full suffrage should be extended to them as a matter of right, I, nevertheless, think it is more likely to be given as a matter of political necessity, when the country in the near future takes up for solution, as it will, the great moral issues which are pressing forward for recognition, but which, as yet, are wholly ignored by the dominant political parties. The suffrage will then be given, not as a right as it should be, nor as a means for her protection, which would be just, but because her vote would be necessary to enable the better, more moral part of the community to make good laws and enable good men to enforce them.

We see that the enfranchisement of women is needed to outvote the foreign population, and make secure American institutions and republican principles. We have paid a premium upon foreign birth and ignorance long enough; yea, too long. And the time is surely dawning when intelligent, patriotic, tax-paying, native-born women will not be the political subjects of foreign paupers, alien insurgents and corruptionists.

Growth of the Movement

The movement is growing year by year. Americans are coming to their senses, and are beginning to realize that it is the only method we can pursue to secure the liberty of our country from the grasp of those who are seeking to destroy its life and its institutions. The majority report of the Senate Special Committee on Woman Suffrage, framed by that grand American statesman and true patriot, Henry W. Blair, and reported during the second session of the last Congress, is a favorable response to the entreaties of the noble women of this land, who insist that their sacred and just political rights shall no longer be trampled under with impunity by the unhallowed feet of pestilential foreigners. In order to show the reader in what light the woman suffrage question is viewed by the highest legislative body in our land, and the imminent danger in which this "land of the free" and "the home of the brave" is placed, if we do not, in the near future, arm woman with the ballot, I subjoin hereto the following significant words, which conclude the said resolution:

"Unless this Government shall be made and preserved truly republican in form by the enfranchisement of woman, the great reform which her ballot would accomplish may never be; demoralization and disintegration now proceeding in the body politic are not likely soon to be arrested. The corruption of the male suffrage is already a well-nigh fatal disease. A republican form of government cannot survive half slave and half free. The ballot is withheld from women because men are not willing to part with one-half of the sovereign power. There is no other cause for the continued perpetration of this unnatural tyranny."

"Enfranchise woman or this Republic will steadily advance to the same destruction, the same ignoble and tragic catastrophe, which has engulfed all male Republics of history. Let us establish a Republic in which both men and women shall be free indeed. Then shall the Republic be perpetual."

San Luis Obispo, Cal., June 1, 1889.

LOS GATOS WILL BE DECENT.—The Board of Trustees of the town of Los Gatos met in regular session Monday evening, June 3d, with every member present, passed unanimously an ordinance which makes it unlawful for any person or persons, either as owner, principal, agent, servant or employee, to establish, open, keep, maintain, carry on, or assist in carrying on, within the corporate limits of the town of Los Gatos, any tipping-house, dram-shop, cellar, saloon, bar, bar-room, sample-room or other place where spirituous, vinous, malt or mixed liquors are sold or given away; or any gambling-room or other place of indecent or immoral character; provided that the provisions of this ordinance shall not apply to the sale of liquors for medicinal purposes by a regularly licensed druggist, upon the prescription of a physician entitled to practice medicine under the laws of the State of California; nor shall such prohibition apply to the sale of such liquors for chemical or mechanical purposes, nor to the sale thereof in quantities not less than one gallon. The ordinance is to take effect on the 1st proximo, and the penalty for its violation will be three months' imprisonment, or \$300 fine, or both fine and imprisonment.

Two new Granges were organized in Pennsylvania during May.

Children's Day.

Bro. J. H. Hale, Worthy Master of the Connecticut State Grange, has prepared the following circular in reference to Children's Day, which contains some good ideas:

To the Patrons of Husbandry of Connecticut: The future of American agriculture and of our country lies in the hands of the children of to-day. Therefore, the earlier we can interest and instruct them in the work of the Grange and farm, the better will it be for their happiness and future prosperity. The National Grange, with far-seeing wisdom, at its last session voted to establish "Children's Day," and so annually devote one day to the children of our Grange homes. Therefore, by special proclamation, the Worthy Master of the National Grange has designated Saturday, June 15th, as Children's Day for 1889, and I most earnestly request that every subordinate Grange in Connecticut hold a special children's meeting on that day, devoted wholly to the instruction and amusement of the young people of the farm, whether their parents are members of our Order or not.

The Lecturer should call some of the most active members to his or her assistance, and plan a grand program for the youngsters. In some Granges it will be found most convenient to have the meeting take the form of an afternoon picnic. However, the officers of each Grange will know how best to work up a meeting that will give the most pleasure and profit to the farm boys and girls of their neighborhood.

Be Sure and Have a Meeting.

And make it the most attractive and instructive one of the whole year. Show up the bright side of farm life in every possible way, and give the children a chance to take part in the work, not only of the meeting, but for one day at least let them feel that their ideas are of value at home and on the farm. Why not let the boys plan and direct as well as assist in all the farm work of this one day? Ask them (even if very little fellows) to look all over the farm on the 14th, and report what work they want done, or think ought to be done, on the 15th, and then be sure to do it, even if it does somewhat interfere with plans of "the old heads."

In like manner let the girls of the family plan the meals and household matters for one day. Let mother and father for once "take a back seat." It will make fun for the young folks, and in a measure fit them to "take the front seat and drive" when the proper time comes later on. There is too much talk about "all the bright boys leaving the farm," and we often hear the girls say they "would not marry a farmer if he was the last man living." Let us teach our boys and girls of the farm that we want the use of their brains as well as muscles, and that by the right use of brains the best of returns can be secured in the shape of a pleasant, happy home on a Connecticut farm.

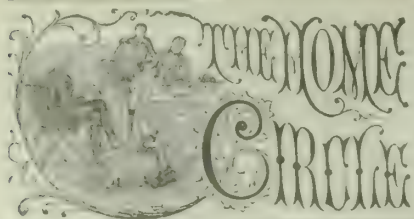
Remember that on some farms "the small boy" never has a chance except to "do chores" and "run for water," while the men folk are resting in the shade.

BALLOT REFORM has enjoyed an extensive boom during the last six months. Already eight States have practically adopted the Australian system. Massachusetts took the lead, and Indiana, Rhode Island, Missouri, Tennessee, Minnesota, Wisconsin and Montana have followed suit. Connecticut and New York are in the same line of reform, though not yet able to pass satisfactory measures. The indications are that the people are thoroughly aroused all over the country, and a still more sweeping movement in that direction may be expected.—*Montpelier (Vt.) Watchman*. [Gov. Bulkeley of Connecticut vetoed the bill providing for the secret ballot, on the ground that it is too radical, too cumbersome, too expensive, and that it opens the door to fraud and will result in disfranchising voters. The House passed the bill over his veto, but subsequently reconsidered the action and laid the bill on the table.—EDS. PRESS.]

RANCHER AND R. R.—A Tulare county farmer lately sent 11 tons of old baled wheat hay to this city, with the following results: The freight on the carload was \$61.51, the broker's commission at 50 cents a ton amounted to \$5.50, and it was sold for \$6.50 a ton, or \$71.50. The cost, therefore, of getting the hay to market and having it sold left the rancher \$4.50 for cutting, baling and the original sowing of the wheat. As it must have cost him \$2 a ton to bale alone, he was considerably out, and would have done better to give the hay away. The unusually heavy freight bill is what he complains of. Had the hay been first rate and had he sold it for \$13 a ton, it would still have left him but \$49 for sowing, cutting, etc.

BRO. I. C. STEELE, Worthy Treasurer of the State Grange, has been in this city the past week in attendance at the Spiritualist Camp-meeting, of which he is chairman. It is pleasant to see the abilities of our Grange officers recognized by elevation to positions of trust and honor in other organizations. As Bro. Steele was chairman of this gathering last year, it is certain that his sincere and generous efforts are well appreciated.

SANTA ROSA GRANGE.—Brother E. A. Rogers, W. M., writes that the Committee on Revised Constitution and By-laws has recommended the adoption of those published in 1889, with some amendments, which will come up for adoption at the next meeting, of which gathering we hope to hear a good report.



Limited Knowledge.

A starry aster dressed in blue
Wished through the autumn weather
That she and springtime's floral crew,
For once, might bloom together.
I often hear the South Wind sing
Of violet and lily;
I'll wake and meet them in the spring—
Although spring air is chilly."

She woke while still the grass was sere
And wet with April showers,
And thought it early in the year
For fragile springtime flowers;
I'll take a few more little naps,
The air seems cold and hazy,
And if the violets pass, perhaps
I'll meet the rose and daisy."

She slept, and woke again to see
The golden-rod above her,
But star-flower or anemone
Her eyes could not discover.
Pray tell me, wise Sir Golden-rod,"
She asked in accents winning,
Where are the flowers that deck the sod
At summer's first beginning?"

"The South Wind always sings to me
In honeyed words the praises
Of mayflower and anemone
And meadows white with daisies."
The Golden-rod shook out his plumes,
And said, with show of reason,
"They are but myths; no flower blooms
So early in the season."

"For ages I have lived, and yet,
Though neither blind nor crazy,
I've never seen a violet
Or daffodil or daisy.
The South Wind is deceiving you;
Your own good sense will show it;
For if such flowers ever grew,
Would neither of us know it?"

"They must be myths," the Aster sighed;
I'll try now to forget them.
If springtime flowers had lived and died,
We surely should have met them."
So wise in their conceit they grew,
And braved the autumn showers,
And never doubted that they knew
The truth of early flowers.

MORAL.

Life may have beauties we have missed,
Rare as the poets draw them;
Why should we doubt that they exist
Because we never saw them? —*Satanstoe.*

Married and Buried.

[Written for the Rural Press by COUSIN ANN.]

Don't skip this article, dear girls; it is not an invective hurled at you from a masculine light on the enormity of wearing a bustle, nor the hideous immorality of chewing gum; nor is it, still worse, a wholesale denunciation of your little follies by some traitor of your own sex, but a simple word of warning from Cousin Ann.

Not long since the papers chronicled the fact that a Sister of Charity had gone to the Sandwich islands for the purpose of devoting her life to the unfortunate people who belong to the colony of lepers.

Self-immolation is a characteristic of certain temperaments, generally of the gentler sex, but in order to make a life-long sacrifice it is not at all necessary, dear girls, for you to immolate yourselves upon a foreign shrine should you desire self-sacrifice—the altar of matrimony stands ever ready for a fresh young victim. Just wed some honest granger and report five years hence, if you please, if your experience differs materially from mine.

\$0.00 represents the sum total of the joint fortune possessed by John Granger and myself at the date of my marriage with that rustic gentleman; but love and youth laugh at poverty, and after a few years of toil and self-denial on rented land, we found ourselves the happy possessors of a farm of our own. "Our own," did I say? I mistake—it brought John a farm; the deed was drawn in his name only, no mention being made of his silent partner who had toiled at his side for years. And, my dears, if John had worked hard, my labors had supplemented his. What with the dairy, the poultry, the kitchen garden to attend to, and the hired men to cook for, I often used to think, as I sought my weary couch, where John had been slumbering for an hour, that my toil was quite as severe as John's labors.

Well, I hinted a little of this to John as I sat reviewing the legal document which made John sole possessor of a farm that I thought in justice should be shared with his co-worker, and John was astonished. "It makes no difference whatever," said he with energy, "which of us has the deed. I had just as lief it was in your name as mine, and you ought to feel the same," after which display of high-minded and generous sentiment I subsided with shame.

When, years afterward, a spirit of speculation impelled John to first mortgage and then

sell our farm without my consent, the inexpediency as well as the injustice of John's being sole owner of our joint earnings presented itself. But John could not see it. He is made of the stuff that all great legislators are made of, and I firmly believe will some day run for State Senator. I fear, however, he will stand little chance for election, as his peculiar virtues are shared generally by men.

Two years since, John emigrated to S. L. O. county (taking me along to cook for him), where he has availed himself of the privilege of taking public land to the extent of one pre-emption, one homestead, and one timber-culture claim, on one of which (the one of John's choosing) the law allows me to live, although it does not allow a wife to acquire a title to any land under Uncle Sam's just Government.

Last year I made a little venture of my own. I hoped. A hundred fine turkeys was the result, but not being able at the time to attend to shipping them myself, the hired man, directed by my husband, turned them in on account at the store.

And the sewing machine, and the clothes-wringer, and the incubator, and last, though not least, the books that I have been hungering for all these years—they are now a mirage in the far horizon, for John doesn't want them.

No, dear girls, if you long for self-immolation, if you want to be literally wiped out, name and nature, just marry. You will be one of those rare and happy individuals who are mentioned by the newspapers but twice under the respective heads of "Married" and "Buried."

The terms are synonymous.

[In hopes that it will be read and taken to heart and acted upon by fair-minded, thoughtful young men, quite as much as for the girls' perusal, we print this "exceeding bitter cry." No true man desires to reduce a woman to servitude in the name of wifehood; true love seeks ever to bless, never to enslave its object; and true marriage is not the subjugation of one soul—male or female—to the will and pleasure of another finite creature, but a joint and willing mutual service of the Highest in a unity of spirit which becomes ever more and more manifest as blessed oneness in the common life.—*Eds. Press*]

Impudence Punished.

The Portland *Oregonian* tells how a well-dressed but rather antiquated masher came to grief the other evening. He met two young women coming from a grocery store with a basket of eggs, and, with lifted hat, benign smile and profound bow, he said blandly, "Good evening, ladies."

The zero-like answer came: "Go mind your business."

But the masher was like the India-rubber boy and not to be flattened at one stamping; so he smiled sweeter than ever and augmented the blandness of his tone. "Ah, charming evening, ladies."

The young women, placing their basket on the sidewalk, selected several eggs for purposes offensive and defensive. One of the eggs flew to pieces when it landed on the masher's jugular vein, another struck him squarely in the breast, and as he turned to run the third hit him in the back of the neck and ran down his spinal column. A diminutive dog now came to the rescue and followed the fleeing masher for a square or two, barking at his heels.

WHO WAS THE HEATHEN?—A family in St. Paul had never employed a Chinese servant, but thought they would like to try one. Accordingly one presented himself, of whom several questions were asked. Among them were: "Do you drink?" "No, I Band of Hope boy." "Do you gamble?" "No, I Band of Hope boy." "Do you smoke?" Rather indignantly, "No, I Band of Hope boy." He was engaged and gave so much satisfaction that a dinner party was given by his employers. Wine was on the table, and the after-dinner cards and cigars were enjoyed. Breakfast was prepared next morning. John appeared, bundle in hand, saying, "I go." "Why do you go? We like you very much." "When I come here you say: 'You smoke?' You smoke. You say, 'You drink?' You drink. You say, 'You gamble?' You gamble. You heathen. I no stay."

TEMPERANCE TRAINING.—The St. Louis *Globe-Democrat* says: Twelve million of children are reported to be under instruction in public schools on the influence of alcohol and other stimulants as well as narcotics. Total abstinence is favored in all cases by this instruction, and there is no doubt but the next generation will come forward with a prejudice against drinking habits. All the New England States, with New York, Pennsylvania and Delaware, as well as the Southern and three or four Western States, have laws compelling temperance education. The Territories, also, are controlled by a United States law to the same effect. This work is slower than prohibition, but it is surer and safer.

ACCORDING to the *Nipomo News*, a Guadalupe farmer has posted up the following "Notice": "If any mans or womans cows or oxen gits in these here osts his or her tale will be cut off as the case may be."

Camping Out.

A few words of modest advice to those who may be contemplating a summer jaunt to the pinerias. To give our words a small degree of weight we will say that we have seen camping life in the mountains of Tulare in all its phases and forms, have tested it personally and viewed it as experienced by others, have seen happy, contented individuals ensconced among the redwoods and contrarily witnessed some pitiable, miserable being in the same place. We have spent months in those fastnesses without getting a glimpse of the broad valley below, and thus our unpretentious admonition comes of actual experience. We most sincerely advise a vacation spent in the pines, for the blissful pleasures derived from such a sojourn will cause the tourist to go again. The greatest part of those to be met with in our mountain resorts are those who previously have spent a vacation there.

We assert that if any one will spend a month among the pines and vary the experience by a frequent fishing trip or a hunt after grouse or perchance a deer, he will never be found spending a summer in any other place. We have diverged—it was to give some advice that space was asked.

First then, leave half, yes nearly all of the guns and bowie-knives behind. Don't load yourselves down with ammunition and make your camp an arsenal as we have seen so many do.

The greatest error of persons going to the pinerias is this fashion of carrying along all the guns they own and all they can borrow. Leave those guns at home and take instead warm blankets, flour and sides of bacon. Never judge your future appetite by what it is when you leave the valley, for if there is one thing that you are absolutely sure of finding in the pines it is an all-devouring appetite, one that calls for baked beans, corn bread and huge slices of meat.

Now if you are so unfortunate as to be elected cook for a party of tourists, just cook all your utensils will strainingly hold and abide the future—none will go to waste. Never think for a moment of taking Jowler along to clean up scraps; there will be none for him. Likewise do not bring along a pig to fatten for winter; he will never flesh up if fed from the waste of a mountain camp. We have seen these things tested and know fully whereof we write.

If you are fastidious on the matter of dress and personal appearance, just cast aside those ideas when preparing for a mountain jaunt. To keep spotlessly neat in the pines while camping out, is entirely beyond human care and patience.

Dress comfortably and warmly and strive to do no more. If you are overly particular about your looks, the pleasure of your sojourn will be marred. We have seen many a well meant trip spoiled by being touchy as to personal dress. You go to the mountains for relaxation and rest, to gain strength and spirits, and not to appear.

Some persons are timid while in the mountain wilds; they are fearful lest some wild animal might come along and wish an intimate acquaintance. Cast such fears aside; sleep with both eyes closed and as long as you wish. Do not barricade your camp nor palisade it. The wild animals never molest the haunts of man, never prowl about camps.

Stay awhile when you do pitch camp. Don't be restless nor flurried. Before leaving home fix matters so that "business" will never enter your thoughts. That will not be a pleasurable vacation if you stay in camp, while all the time your thoughts are at home in the valley. Remain some time; it will take you a week or more to get rid of that lonesome feeling occasioned by a change from civilization to solitude. Stay a month at least. A few kinds of medicines are necessary to complete a tourist's outfit; each person knows the kinds he will probably need.

For a "house" we know of nothing superior to a well-made tent; and cooking utensils—take but few. Let your main incumbrance be provisions, plenty of wholesome food. And it is after this fashion that you can best enjoy a vacation sojourn in the pine shades of Tulare county.—*Visalia Delta.*

Ah There! Those Trousers!

[Written for the Rural Press by FANNY ANN FUR.]

Ha, ha, ha, ha! I am laughing, you see. So they have taken to it at last, like sensible creatures, but alack and alas! for the wrong gender!

We wanted "it" for ourselves, but they have appropriated "it" and left us out in the cold!

But now I can use those old black petticoats that were a drug in the market. Just "bifurcate" them, and run them up on the sewing machine, and they are ready for use. All my boys can now have a pair of—ahem!—pantalons for the price of a spool of thread only. What a saving! But it was rather mean after making so much fun of every woman who attempted to wear a "bifurcated" to snatch it away from her in this manner.

But then they feel so much more comfortable, poor things, that we don't blame them. Now they need not be afraid that they will get up after a sudden sitting down, like Josiah Allen's wife's husband, all ripped from top to bottom, necessitating a sudden pinning-up process.

But then the "bifurcated" does look funny.

Floppity, flop! Floppity, flop! at every step, suggesting a Celestial washerman. The homelier the man, the wider the pantaloons. It is invariably the case. If they go on widening, they'll soon be petticoats, and then, thank our lucky stars, perhaps the sterner sex will give tit for tat, and grant us our long-cherished desire and let us wear the breech—ahem!—the pantaloons!

Chaff.

LITTLE HENRY, retelling his Bible lesson to his sister, aged three. "And you know, Mary, Lot's wife was a naughty woman, and did what she was told not to, and looked behind her, and God changed her into a pepper-caster!"—*Pick Me Up.*

"If any one should call this afternoon, Mary, say that I am not well," said the mistress to a newly engaged servant. "I'm afraid I ate a little too much of that rich pudding for dinner, and it, or something else, has brought on a severe headache. I am going to lie down." A few moments later the mistress, from her room near the head of the stairs, heard Mary say to two aristocratic ladies who called for the first time: "Yes'm. Mrs. B—is to home, but she eat so much pudding for dinner that she had to go to bed."—*Youths' Companion.*

DE BIGSBY—What makes you so down in the mouth, Rigley?

Rigley (with a long drawn sigh)—Addition to father's family last night.

De Bigsby—Then why the deuce are you so glum? Was it a boy or a girl?

Rigley—Neither. Miss Recusant became my sister.—*Buffalo Courier.*

AMONG the replies to an advertisement of a musical committee for a candidate as organist, music-teacher, etc., was the following: "Gentlemen—I noticed your advertisement for an organist and music-teacher, either lady or gentleman. Having been both for several years, I offer you my services."—*The Electro-typer.*

"THAT'S a rather unique paper-weight you have there," said Wilkins, indicating a curiously shaped article lying on his friend Johnson's table. "Yes," said the latter, picking up the object and eyeing it critically; "you know they have begun to teach cooking in the schools, and this is a doughnut baked by my sister Clara after taking only six lessons."

IN A CERTAIN Bostonian home, not many evenings since, the father thought it incumbent upon him to take his youngest son upstairs for a short outing, based upon the child's disobedience to its mother. The echoes from the interview penetrated to the parlor, and in the midst of the "boo-hoos" was heard the shrill treble: "I think it's real mean for you to spank me. Why don't you let mamma do her own work?"

"You must admit," said an admirer of Ben Butler to a New Orleans lady, "that when Butler was in command in your city you had no yellow fever." "Ah," answered the pretty creole, "God is good. He would not afflict us with two diseases at once."

WHEN a stranger makes his appearance in the backwoods of Maine, he is presumed to be on the lookout for game. Last summer a distinguished prelate of the Episcopal Church found himself stranded in that region and was compelled to put up at a farmhouse. "Do you have many Episcopalians down here?" he inquired of his hospitable hostess. "Well, really now, I don't know," she answered. "Our hired man shot some sort of a queer critter down back of the barn, the other day, but he claimed that it was a woodchuck."

TOOK HIM AT HIS WORD.—The Oakland *Tribune* is responsible for this: A teacher of penmanship in the Stockton schools, who is somewhat of a wag, as well as a great hand to stimulate the children to extra effort in their writing, facetiously remarked to a certain class that the one who exercised most care and got up the best specimen should "go and have a tooth pulled." A little girl won the prize and he gave her an order to take to a dentist to have her tooth drawn. Some days later he was surprised at receiving a bill from a dentist for \$1 for pulling the child's tooth. She had actually had a tooth drawn.

DR. HAMMOND has a wise remark on cigarette-smoking—that laws to prevent children from smoking them are impossible of enforcement; that this can be done only by educating parents to let tobacco alone. Nearly all the States have indulged in legislation against children. Minors must not do what they see their own fathers do. The manufacture of cigarettes may be forbidden, and probably ought to be stopped, as they are, almost without exception, drugged. Dr. Hammond considers the use of tobacco a greater evil than the use of alcohol, and he has the argument with the facts.—*Ex.*

SHE THOUGHT BETTER OF IT.—The Oakland *Enquirer* tells how a woman at Sacramento, the wife of a drunkard and mother of four children, went to Sam Jones and told him her life was unendurable and she had determined to commit suicide. "Madam," said Sam, "don't do it. You won't be in hell more than ten minutes before you'd wish you were back with those poor motherless children." This gave the matter a different aspect, and the much-tried woman changed her mind.

Chautauqua Assembly.

The Pacific Coast branch of the C. L. S. C. will hold its tenth annual summer assembly at Pacific Grove, Monterey, July 1 to 15, 1889.

Monday, July 1st—2 P. M., organization of Sunday-school Normal class. 3 P. M., organization of Science and Art classes. 5 P. M., vesper service in tent in the grove. 8 P. M., concert by the Jubilee Jingers.

Tuesday, July 2d—9 A. M., Science and Art classes. 10:30 A. M., introductory exercises. Music by the Jingers, and address by Rev. A. C. Hirst, D. D., LL.D., College Park. 2 P. M., Sunday-school Normal class. 3 P. M., concert by the Jubilee Jingers. 5 P. M., Chautauqua Round Table and vesper service. 8 P. M., "Men Who Win"—Rev. E. R. Dille, D. D., Oakland.

Wednesday, July 3d—9 A. M., Science and Art classes. 10:30 A. M., "Walks About Athens"—Rev. C. H. Hobart, Oakland. 2 P. M., Sunday-school Normal class. 3 P. M., "The Holy Land; a general view"—Prof. A. J. Marks, A. M., Chicago, Ill. 5 P. M., Round Table and vesper service. 8 P. M., "The Growth of Liberty"—Adley H. Cummins, LL.D., San Francisco.

Thursday, July 4th—Citizens' celebration in forenoon. 2 P. M., speeches and music. Address, "Our Country and its Dangers"—Rev. R. G. Cantine, D. D., Los Angeles. 8 P. M., concert by the Jubilee Jingers.

Friday, July 5th—9 A. M., classes. 10:30 A. M., "The Story of Monterey Bay"—Mrs. M. H. Field, San Jose. 2 P. M., Sunday-school Normal class. 3 P. M., "From Dan to Beersheba"—Prof. A. J. Marks, A. M., Chicago, Ill. 5 P. M., Round Table and vesper service. 8 P. M., lecture—Bishop John H. Vincent, D. D., LL.D., Buffalo, N. Y.

Saturday, July 6th—9 A. M., classes. 10:30 A. M., Volapuk—Dr. W. F. Rignaldi, San Francisco. 2 P. M., Sunday-school Normal class. 3 P. M., Jerusalem in the Time of King David—Prof. A. J. Marks, A. M., Chicago, Ill. 5 P. M., Round Table and vesper service. 8 P. M., concert by the Jubilee Jingers.

Sunday, July 7th—11 A. M., sermon—Bishop John H. Vincent, D. D., LL.D., Buffalo, N. Y. 3 P. M., Children's Mass Meeting—conducted by Bishop Vincent. 8 P. M., sermon—Dr. J. E. Wheeler, Sacramento.

Monday, July 8th—9 A. M., classes. 10:30 A. M., lecture—"The Mountains and the Sea"—Prof. Josiah Keep, Mills College. 2 P. M., Sunday-school Normal class. 3 P. M., lecture—Col. L. F. Copeland, Chicago, Ill. 5 P. M., Round Table and vesper service. 8 P. M., lecture—"Mistakes of Bob"—Col. L. F. Copeland, Chicago, Ill.

Tuesday, July 9th—9 A. M., classes. 10:30 A. M., "Butterflies and How to Make a Collecton"—C. F. McGlashan, Truckee. 2 P. M., Sunday-school Normal class. 3 P. M., lecture—Prof. W. C. Sawyer, A. M., Ph. D., San Jose. 5 P. M., Round Table and vesper service. 8 P. M., musical recital—Prof. F. Loui King, San Jose.

Wednesday, July 10th—9 A. M., classes. 10:30 A. M., "California Lilies"—Mrs. Lemmon. 2 P. M., Round Table and vesper service. 3 P. M., "Beneficent Results of Disease"—J. H. Wythe, M. D., D. D., Oakland. 5 P. M., Round Table and vesper service. 8 P. M., lecture—Bishop John H. Vincent, D. D., LL.D., Buffalo, N. Y.

Thursday, July 11th—9 A. M., classes, graduating exercises. 10:30 A. M., procession. Music. Prayer. Music. President's address. Address and presentation of diplomas—Chancellor J. H. Vincent. Music. Benediction. 2 P. M., classes. 3 P. M., lecture—Col. L. F. Copeland, Chicago, Ill. 5 P. M., Round Table and vesper service. 8 P. M., lecture—Bishop John H. Vincent, D. D., LL.D., Buffalo, N. Y. 9:30 P. M., banquet and reunion of the Alumni at the El Carmelo.

Friday, July 12th—9 A. M., classes. 10:30 A. M., Wordsworth—Mrs. Lydia S. B. Cox, College Park. 2 P. M., Sunday-school Normal class. 3 P. M., lecture—Prof. W. W. Thoburn, Ph. D., College Park. 5 P. M., Round Table and vesper service. 8 P. M., lecture—Bishop H. W. Warren, D. D., LL.D., Denver, Col.

Saturday, July 13th—9 A. M., classes. 10:30 A. M., "The Pines of California"—Prof. J. G. Lemmon, Oakland. 2 P. M., Sunday-school Normal class. 3 P. M., "The Air of Concord"—Dr. C. L. Anderson, Santa Cruz. 5 P. M., Round Table and vesper service. 8 P. M., lecture—Col. L. F. Copeland, Chicago, Ill.

Sunday, July 14th—11 A. M., sermon—Bishop H. W. Warren, D. D., LL.D., Denver, Col. 7:30 P. M., sermon—Rev. J. H. Garnett, D. D., Oakland, Cal.

WORK AND ALCOHOL.—Even people who are in the habit of taking alcohol as part of their daily food abstain from it when any exertion demanding special accuracy is required of them. One mighty Nimrod is said to declare that a single glass of sherry with his lunch spoils his shooting for the day, and he takes a flask of cold tea with him to the moors; while a famous violinist, who is subject, as men of genius often are, to fits of nervousness when about to appear before an audience, refuses to give himself "Dutch courage" by a single glass of wine. He says it would spoil his playing; he would blur the notes if he took it.

SPANNING THE TIME SINCE THE PILGRIMS.—That was a most extraordinary reminiscence which the speaker, Judge O. W. Holmes, cited from a letter written by the late Sidney Bartlett: "Deacon Spooner died in 1818, aged 94. I saw him and talked with him. He talked with Elder Faunce, who talked with the pilgrims, and is said to have pointed out the rock." Only three lives, one of them but just passed away, between us and the men of the Mayflower!—*Boston Advertiser*.

YOUNG FOLKS' COLUMN.

Trip and Baby Bear.

(Written for the Rural Press by MRS. MAY E. STAFFORD.)

One day mamma took Wilfred and his baby brother to have their photographs taken. Wilfred enjoyed it very much indeed. The photographer (what a long word!) was a nice man, and after he had seated Wilfred in the chair with baby's head resting on his shoulder, he played upon the flute and rang some pretty sounding bells to amuse them and keep them quiet until their picture was taken.

While mamma was waiting to see the proofs, she let Wilfred look at the pictures in an album on the table. There was one picture Wilfred liked better than any of the rest. It was the picture of a large Newfoundland dog with a basket in his mouth. Wilfred thought he would like to have such a picture of his doggie, whose name was "Trip," and what do you suppose he did? Well, the very next day he put on his big brother's rubber boots, his uncle's tall hat, which he took out of the hat-box when auntie wasn't looking, and taking Trip by the collar, started out, without telling any one, to find the photograph gallery.

How the photographer laughed when he saw his funny little visitor with the big boots and the tall hat. He stood him on a shaggy mat with his arms around Trip's neck, and bidding him keep perfectly quiet, in a moment the picture was taken.

Wilfred was greatly surprised when he saw the picture to find that his photograph had been taken as well as Trip's, and the shaggy mat upon which they had been standing looked just like grass in the picture.

The photographer bade him run home as quickly as possible and give the picture to his mamma; and just as Wilfred reached the street upon which he lived, he met mamma coming with great anxiety in search of him. She told him that he must never, never, go out of the yard without permission. Wilfred promised he would not, and then he showed his picture to her.

Mamma laughed until the tears ran down her cheeks; but she took the picture and had a pretty frame put round it, and then hung it up in the parlor. She says she would not part with it for anything, and I should not think she would, should you?

Roscoe's Baby Bear.

Roscoe is a little boy just three years old. He is a very good boy usually, and will play nearly all day with his woolly-headed dollie, Susie, or his box of "Tominoses," as he calls his dominoes, and his big drum that Santa Claus brought him last Christmas.

Roscoe loves to play, but better still he loves to climb up in his grandma's lap while she tells him a story. And what do you suppose his favorite story is? It is the "Three Bears." Roscoe thinks it the most wonderful story in the world, and always wished he had a baby bear, like "Tiny Cub," to play with.

One day a gentleman sent him a funny little Scotch terrier puppy for his very own. Roscoe was asleep when the puppy arrived, and when he awoke, his mamma put the puppy into the bed beside him, and in a minute he had his new playmate in his arms. And what do you think he called the puppy? Why, "Baby Bear," to be sure. He thought it was "Tiny Cub" come to play with him, and although mamma tried to convince him that his new playmate was a puppy instead of a bear, still the little boy would insist upon calling him Baby Bear. Isn't that a queer name for a doggie?

Not a Coward

Here is a story for you, boys, who are so splendid and big and brave, about a little girl who, though ever so nice, was so very timid that her brothers called her Mab, the coward.

Yes, Mabel certainly was something of a coward; she didn't try to deny it, but she did try to overcome it.

Horses were her particular terror; to walk through a field where they were was agony to her; and to ride behind one with any one but her father, in whom she had implicit faith, was anything but a pleasure.

Occasionally the boys, Bob and Frank, would persuade her to go out with them; but she was always sorry for it, for they were sure to frighten her in some way. They would whip up old Charlie till he went from his steady jog-trot into an awkward gallop, and then they would scream that they could not hold him; that he was running away.

It seemed they could not resist a temptation to drive too near the edge of a high bank, too near the steam engine, etc. All of which made poor Mabel most uncomfortable, though she knew the boys loved her too well to let anything happen.

I think they were taking a very mean advantage of her, don't you, boys?

She tried hard to make herself brave; for she did not want the boys to despise her, and, besides, as she told her mother in confidence, it seemed so wicked to be always afraid something would happen.

Mab was not a bit of a "goody-goody" girl, but she did not want to be wicked, so she just

asked her Heavenly Father to help her grow braver, and to make her put her trust in Him.

Toward the end of the summer Aunt Jane came to visit our friends, and with her came Bess, her little girl of about Mab's age, and Clarence, a cute little fellow, who was just beginning to talk. Bess just suited the boys. She was equal to any prank they proposed; and, generally wanting to be first in everything, there were some pretty serious tussles as to who should drive. One night after tea the girls and boys went up to the big barnyard to feed the chickens. Clarence was allowed to go without his nurse, as the four guardians promised the best of care. They mixed the meal and fed the chickens generously, and were all intently watching their little charge, who was vainly trying to catch a most excitable little duck, when they heard furious galloping and saw five horses making for the yard at a wild rate.

The children were right in their path, and the horses seemed almost upon them; but, quicker than I can write it, Bob, Frank and Bess, with faces full of terror and screaming for help, ran for the fence, and were over in the twinkling of an eye. Oh, how Bess's white skirts did fly! she seemed to go over in one bound. Of course, I'm not surprised that Bess should have run, for she was "only a girl," you know; but what do you think of our brave boys? And our little coward, what do you think she did? Ran and left Clarence to his fate? That surely would have been just the thing for a cowardly girl to do. But not she. Seeing it was too late for them both to run, she seized Clarence and put him between herself and his carriage, from which they had taken him; and then she stood with her arms round the poor little frightened fellow and put up a little prayer for help. I don't know what words she used, but she just asked her Heavenly Father to protect her; and He did.

The horses dashed into the barnyard in a mad gallop, raising so tremendous a cloud of dust that the anxious little trio on the safe side of the fence at first could see nothing of Mab or the baby, but at last caught a glimpse of the horses as they separated and went each side of Mabel, leaving her unharmed.

On they tore to the end of the yard, and in through the open stable to their own stalls. The two mammas and Mab's papa came running into the yard, having heard the screams of the brave threes as they scrambled over the fence.

Aunt Janet sprang for her baby and nearly smothered him with kisses; but she did not forget to praise his faithful little protector.

Papa put his arms around Mab and said: "I am proud of my brave little daughter;" and mamma gave her hand a squeeze that meant lots.

Then the shamefaced trio came into the yard; and, after a few minutes of awkward silence—for somehow they all felt pretty small—Frank said: "I say, let's give three cheers for the coward who has turned out to be the bravest of the lot."

So the cheers were given—good, hearty ones they were, too; and I wish I had been there to help, don't you?—*Early Dew*.

A Pet Quail.

The Santa Cruz *Surf* says that one of the pets at the beach is a pretty, plump, little quail which answers to the name of Penie, and lives at Mrs. Roth's on the esplanade. A year or so ago little Maggie Roth was visiting in the mountains, where she trapped the quail and brought it home with her. It has been her pet and companion ever since, and is very tame, bright and intelligent. Penie lives in a cage, but not in a prison, as he is allowed to go out whenever he chooses. His favorite promenade is the broad handrail of the esplanade, where he scuttles along at a great pace with his wings extended to their fullest width, scolding like a small Tar tar. He knows all the children, and will play a game of tag with them whenever invited. The little fellows run before and Penie follows, getting more excited as he nears his antagonist, and scolding roundly as he goes. When he reaches them he pecks at their legs or perches on their shoulders and pecks at their cheeks.

This is all very well for play, but if he is frightened or in trouble he flies at once to his little mistress and nestles on her shoulder. She feeds him bread and other food, but the dainty fellow likes best of all to eat flowers. He not only sips the honey, but devours the petals also. Penie is a handsome fellow with a fine tuft and beautiful plumage.

A FAST LOCOMOTIVE.—The fastest time ever made in the United States by a locomotive was recently made on the Reading road, near Woolton, Penn. The locomotive, just turned out of the Baldwin works, in an eight-mile run on the level track at full speed, averaged a mile in 39 seconds, equivalent to 92 miles an hour.

THERE are, according to the school census, 60,501 school children in San Francisco, 788 more than last year. The total number of boys this year between the ages of 5 and 17 is 30,329. The total number of girls is 30,177. There are 22,760 children under 5 years of age.

ANOTHER band of buffalo which has not been generally known to have been in existence has been discovered in the bad lands around the Bull mountains, about halfway between the Yellowstone and Missouri rivers, in Dawson county, M. T.

DOMESTIC ECONOMY

Cacao.

EDITORS PRESS.—This complaint is about the spelling of a word. Daily, and in almost every paper, the eye is offended by the word *cocoa*.

"A. B.'s fine breakfast *cocoa*," "C. D.'s *cocoa* for invalids," etc. How can the maker of a food ask the public to take his word as to its being pure, wholesome, etc., when he shows such a dense ignorance of his article as not to know how to spell it? *Cocoa* is never applied properly except in connection with the word nut—*cocoa-nut*, the fruit of the *cocoa-nut* tree.

The tree on which grows the bean from which chocolate is made is called *cacao*, and is pronounced in the Spanish countries, where it grows, in two syllables—"csh cow," with a strong accent on the last syllable.

To a lover of that delicious beverage, chocolate, the daily murder of the word *cocoa* is mildly exasperating. W.

CREAM TAPIOC PUDGING.—Soak two table-spoons of tapioca over night in just enough water to cover it; in the morning boil one quart of milk with the soaked tapioca by placing it in a tin pail set in water and boil; add two-thirds of a cup of sugar and a little salt; beat the yolks of three eggs thoroughly; when the milk has boiled ten minutes, stir in the yolks, remove from the fire and stir rapidly for five minutes so it will not curdle; flavor with vanilla; pour into a pudding-dish; beat the whites of the eggs to a stiff froth, which pour over the top of the custard; sift sugar over the top and brown a few minutes in the oven.

SAGO PUDGING.—One quart milk, four table-spoonsful sago boiled in the milk till soft, set the dish in Kettle of hot water and let the sago swell gradually. Beat up three eggs, and stir into cooked milk and sago; salt and sugar to taste. Then put in oven and bake very lightly. Sauce for this: Two thirds cupful butter beaten to cream; stir in sugar till quite thick. To cupful boiling water add cornstarch mixed with cold water till the whole is of consistency of thin starch; mix this with sugar and butter, one-half over pudding while warm and other half just before serving.

CRANBERRY SAUCE.—Pick over and wash the cranberries and put in the preserving kettle, with half a pint of water to one quart of berries; now put the sugar—granulated sugar is the best—on top of the berries; set on the fire and stir about half an hour; stir often to prevent burning; they will not need straining, and will preserve their rich color cooked in this way. Never cook cranberries before putting in the sugar. Less sugar may be used if you do not wish them very rich.

APPLE-TAPIOC PUDGING.—For apple-tapioca pudding, add one-half teacup of tapioca to 1½ pints of cold water; put on the fire and cook till clear, stirring to prevent burning; remove from the fire, sweeten, and flavor with nutmeg; place six or eight pared and cored apples in a pudding-dish, pour the tapioca over them and bake until the apples are done. Serve cold with cream.

PINEAPPLE CREAM.—Soak one ounce of gelatine in water until dissolved; whip one pint of sweet cream to a stiff froth. Cut the pineapple fine, boil with one-half pound of pulverized sugar, strain through a colander, add the dissolved gelatine, set on ice, and when it thickens stir until smooth, then add the whipped cream and mold.

BAKED APPLE PUDGING.—Pare a dozen large apples; take out the cores and put them into a saucepan with a cup of hot water; boil till they are soft and thick; beat them well and stir in half-pound of sugar, the juice of two lemons and the yolks of six eggs; bake in a puff paste. Serve with hard sauce.

FLANNEL CAKES.—Cut dry, light bread in pieces, put over it enough sour milk to cover it; let it stand over night; in the morning, wash it well, and to every quart of bread add one egg well beaten, a teaspoonful of soda, a pinch of salt and flour to make a moderately thin batter; bake on a griddle.

CREAM PIE.—One pint of sweet milk, white of one egg and yolks of three; two table-spoonsful of sugar, two of cornstarch; beat all together; let it cool and flavor. Make a rich crust and bake separate and fill; beat the whites of two eggs to a froth, spread over the top and set in the oven to brown.

JELLY ROLL.—One cup of sugar, three eggs, one cup of flour, one quarter of a cup of water, one teaspoon of baking powder. Bake in a long, square tin; lay upon a towel and roll.

SNOW PUDGING.—One pint of milk, one-half cup of sugar, one-half cup of cornstarch; let come to a boil and stir in three beaten eggs. Boil till thick and set away to cool.

COCOANUT BALLS.—Grate a cocoanut and mix with milk enough to make a paste, whites of three eggs, sugar to sweeten. Make into balls and bake on buttered tin.

SPONGE CAKE.—One dozen eggs with whites and yolks beaten separately, one pint of sugar, one pint of flour, and the juice of two lemons. Bake in a moderate oven.

NUTMEG SAUCE.—To one pint of boiling water add a half-cup of sugar, one tablespoon of butter, a pinch of salt, one tablespoon of cornstarch. Nutmeg to taste.



A. T. DEWEY.

W. B. EWER.

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SAN FRANCISCO:

Saturday, June 15, 1889.

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(NEW THIS ISSUE.)

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Hay Press—Baker & Hamilton,
Bartlett Springs, Lake Co., Cal.
Windmills and Pumps—Woodin & Little,
Veterinary Surgeon—H. E. Carpenter,
Allen Springs, Lake Co., Cal.
Agricultural Machinery—Byron Jackson,
Well Machinery—D. J. Lynch, Kelseyville, Cal.
Percheron Horses—Capt. W. B. Collier, Lakeport, Cal.
Situation Wanted—"F. W. C."
Bale Rope—Tubbs Cordage Co.
Windmills—P. P. Mast & Co.

See Advertising Columns.

The Week.

Just after the Rural went to press last week came the tidings of a great conflagration by which the heart was burned out of the thriving town of Seattle, millions of property destroyed and hundreds bereft of home and livelihood. Though small when compared with the great Pennsylvania disaster, the casualty is a notable one and has called out generous response to the needs of the bereft. San Francisco having sent \$50,000 to Pennsylvania, sent \$10,000 to Seattle, and there is another \$5000 to be sent where most needed. Other California towns have also contributed well to aid the distressed.

The harvest is progressing, and reports more favorable on the whole than anticipated. Transportation companies are preparing to move a vast amount of grain from the valleys to tide-water. The rivers are well supplied with steamers and barges, and from many points rates, made reasonable by competition between rail and water will prevail. Labor is in demand in many parts and good wages are paid.

There is no need for idleness nor want in California at present—there is plenty to do for all who have the strength and the will for work.

The Press and the Corporations.

It is an interesting fact that a local railway company has sued the Lassen Advocate for libel because that journal had the temerity to publish the following paragraph:

It will be remembered that some time ago the Advocate published the rates of the N. & C. R. R., which were sent to us by that road for publication, and among the other rates was a price per pound on wool. It now seems that the railroad does not stick to its rates. We have been informed that several loads of wool were taken to Liegan, and that the Narrow Gauge refused to ship it at their advertised rates. Sheep men in this valley, within ten miles of the railroad, find it cheaper to ship their wool to Chico than to stand the extortion of this "blood-sucker" institution. Such a railroad is a positive harm to the county. Nor is it wise policy on the part of the company. If they would make and stick to decent rates, they would have much more hauling to do than at present.

This little highland railway believes it has been injured to the amount of \$5000 by the publication of the above terrible onslaught, and now prays the court for a judgment for the above sum against the proprietors of the Advocate.

It is a little amusing to see how thin-skinned the high altitude railway magnates are. Tide-water railway moguls, like the amphibious pachyderms of the animal kingdom, are so heavy hided that such a thrust from a newspaper would only be an agreeable sort of a tickle or scratch-my-back, and in return for the editor's favor would scratch his back with a free pass or a standing advertisement. They would be so pleased that the editor had not called them perjurers and horse-thieves, but had merely used the term bloodsucker, which is a very affectionate little animal, that they would certainly think some substantial acknowledgment of the favor should be made. But mountain railway men are apparently different, and though the editor, with true journalistic wisdom, refrains from making direct charges, but merely states the gossip of the neighborhood, they propose to wipe him out with a judicial process. These railway men will find that they have adopted a very unwise course—even a switch-tender on a trunk line could tell them that. They will only advertise the paper and the fact that their railway management is a subject of condemnation in the locality.

But there is a more serious side to the question and one upon which the press of the State should stand as a unit and extend both sympathy and financial support to the Advocate, if the latter should be needed. We are everlastingly and emphatically down upon unjournalistic attacks upon individuals for private ends, and are always glad when the libel or black-mailer is mulcted in exemplary damages; but for corporations which are public institutions to attempt to silence legitimate criticism by legal suits which editors of small journals usually have neither time nor money to defend is a proceeding which should be publicly and persistently condemned. The courts are not created for this purpose. Upon the face of it such a suit for libel seems to be a high-handed proceeding for the purpose of crushing out or frightening away legitimate criticism, and if this is the case, the people of the neighborhood will recognize it at once and act accordingly. There may be, of course, considerations involved in the case which do not appear on the face of it and are not discernible at a distance, but the paragraph which is proceeded against as libelous seems to us to be a legitimate criticism of the methods of a public carrier, and which any journal representing the public interest and welfare should be privileged to make—providing always, of course, that the facts warrant the remarks, and that the statements are made in good faith and with a commendable motive, to wit: loyalty to the public interest.

The Silo in California.

We have commented from time to time on the use of the silo in California, and have given all the actual experience which Californians have had with the ensilaging of fodder. It is true that the method has not commended itself here as at the East, where a long winter of dry feeding prevails, but still it is possible that the silo for furnishing succulent food during the dry summer and autumn, and the slow pasture growth of early winter, may serve a very useful

purpose in this State. The latest experience comes to us by way of the San Luis Obispo Tribune, and it only covers the construction and filling of the silo, which will not be opened until August next. The writer gives his operation thus far as follows:

My silo is 24x12 feet on the outside, built of 6x8 inches for sills, 2x2 studding 16 inches from center to center, and 18 feet high from the sills, lined on the inside with two thicknesses of redwood boards, with tarred paper between, all joints broken, and the whole girded over twice with 4x6 scantling and divided on the inside with siding planks (2x2) crosswise, and two half-inch iron bolts through them and the building, to keep the lateral pressure from spreading and bursting the building. The bottom is filled in for some 16 inches, and on top of that is laid a four-inch concrete floor. The building being prepared, I put a binder into a patch of Black Oregon oats in the milk stage, bound them, hauled them to the barn—by the side of which the silo stands—and cut it all into half-inch chop feed, and run it into the silo. Not having sufficient oats to fill it, I then cut a patch of wheat, just in the dough, and put that in, which filled the pits to within three feet of the top. I let it stand a couple of days to settle, then tramped all down hard, and covered it with two feet of long hay and tramped it down. At the time of covering the mass it had a temperature, 18 inches below the top, of 120 degrees Fahrenheit. I shall not trouble it till about the middle of August, when I will open it and report to you the result; but as ensilage-making has proved a success in the Eastern States to such a degree that some farmers make it by the hundreds of tons, I have no fears of a failure.

We shall watch for the opening of this silo, and keep our readers informed of the character of the fodder obtained and the results secured with it.

Rodents Outlawed.

Ground squirrels and gophers are outlaws in San Benito county—or they will be after the 19th instant—and those who harbor these mischievous little cave-dwellers, or give them negative aid and comfort by failing to go to war with them, are liable to come to grief themselves; for the Supervisors have unanimously ordained that the owners or occupants of lands infested with squirrels or gophers shall destroy the pests by poison or other appropriate means. "And said owners or possessors of such land shall commence said destruction as soon as this ordinance takes effect, and shall continue the use of the means of destruction until all the said squirrels and gophers are destroyed or removed from such lands. And all such lands shall be maintained and kept free from squirrels and gophers." And it is made and declared to be a misdemeanor for any one, whose land is so infested, to neglect destroying or endeavoring to destroy the noxious animals for a period of ten days after being notified to do so; "and any person so guilty may be prosecuted and punished as misdemeanors are prosecuted and punished under the laws of this State, and to the full extent thereof."

Moreover, the second section of the ordinance provides that

Any owner or occupant of lands, whose lands are free from squirrels or gophers, or who is endeavoring to destroy the same on his own lands, may give notice to the owners or occupants of adjoining lands, whose lands are infested with squirrels or gophers, and who is not using due diligence, nor endeavoring to destroy said animals, to immediately commence the destruction thereof. And if said owner or occupant of said lands so infested does not comply with said demand within ten days thereafter, then the person giving said notice, or his agent or employes, may enter upon the lands so infested for the purpose of destroying, and may destroy, said squirrels or gophers. And the expense thereof shall be a claim against such owner or occupant, and a lien upon said land in favor of said adjoining land-owner or possessor giving said notice. And said claim may be enforced in any court of competent jurisdiction, and a judgment obtained therefor against said owner or possessor neglecting to comply with said demand. And said lands of said persons shall be sold in satisfaction of said judgment.

If this measure is supported by the citizens of the county with anything like the unanimity with which the supervisors passed it, the death rate among San Benito rodents must soon show a marked increase.

WATERING OR CULTIVATING?—At the Tulare Experiment Station the work of irrigating has just been finished. A portion of the tract will be left unirrigated to test the difference between cultivation and irrigation.

HORTICULTURAL COMMISSION.—The San Benito Supervisors have appointed J. A. Scholfield, Gustav Brown and E. W. Bowman County Board of Horticultural Commissioners.

Farmers as Law-Makers.

In the early days of our republic, when everything was in a chaotic state, there was less corruption than we find now. Theft was not termed kleptomania when a wealthy person stole something, dipsomania was unknown, temporary insanity or transitory frenzy had not been invented to shelter the murderer, the base wretch who murdered a human being was not honored with the publishing of his picture and extended biographical notice, and his cell was not adorned with flowers sent by fair hands; men spoke with horror, and a murder, suicide or fatal accident, when telegraphs were unknown and news traveled slowly, caused many to pass sleepless nights. Now, from all over the country and even from across the ocean are wired accounts of terrible scenes until our minds are hardened like frequenters at bull-fights and we yearn for such news. Unless the papers have the usual sickening display, we say times are dull. Our laws are not what they ought to be. Who are to blame—the lawyers who frame and execute or the people who elect them? Kleptomania, which blinds the conscience by drawing distinctions and using a term less harsh than theft, has been invented by the legal fraternity; they have often used their brain not to make law a blessing but often a curse, for the man who can afford to pay can generally find the lawyer who can save him from punishment by some trick. In the early days there were more farmers at the helm, but as the legal profession became overcrowded, men imagined that none but a lawyer could draw up laws, and least of all, a plain farmer. So Congress and the various State Legislatures were filled mainly by lawyers, and they, with an eye to business, devised laws that they would be requested to interpret when they had lost their office. Let us try the experiment of sending more farmers and fewer lawyers to legislate for us. It might be dangerous to make a too sudden change, but let us prepare the way gradually, send only capable farmers, let their actions be well watched, and compare them with the legal fraternity. We predict that a careful comparison would lead to the election of more farmers, so that it would not be long before our Congress and Legislatures would have a membership proportioned according to the numerical strength of the classes for whom they are expected to legislate. With the best of motives, lawyers cannot be expected to enact laws which shall satisfy those whose wants they too often fail to understand.

Patriotism.

A man with strong faith may be a religious fanatic, but without faith he is an unbeliever. Faith, even the strongest, may be shattered, as we find in reading the biographies of distinguished men. Patriotism also requires faith. No man can believe in his Government unless he fully sympathizes with it and has confidence that each restrictive law is intended for the general good. How can a man who believes that the affairs of Canada or Mexico are better administered than those of our country desire their annexation? None but a selfish man could do so. A man may disbelieve in annexation and yet be a patriot because he considers that the country is as large as safe for a republic, but he could not work for the addition of other lands to our domain unless he believed it would be to our advantage. We have lately celebrated the centennial of the inauguration of Gen. Washington to the Presidency. The Roman Catholic and the Hebrew were as eulogistic of his religious character as the Episcopalian to whose communion he belonged. This was because he had banished self. No selfish man can be a patriot. The illustrious Aaron Burr is a case in point. He desired to place himself at the head of others, hence his traitorous designs. Had Washington been a selfish man, he could have been proclaimed King George I. He had the army to support him; he had all the respect which is always shown a true hero. He was a natural gentleman and as a king would have been superior to the George on the English throne. Many of the founders of the Republic were not enthusiasts—they had seceded from England not because they opposed monarchy, but because they felt they were not treated fairly, and it would have been an easy to have proclaimed a monarchy, but the Father of his Country chose the more excellent way.

The Exposition at Detroit.

On September 17th a World's Fair and Exposition will open at Detroit, Michigan. It is to be a combination of agricultural and industrial fair and exposition, and cash prizes of \$100,000 are to be given. The main building, of which we give a cut on this page, has a frontage of 500 feet, and the exhibit area is 200,000 square feet. The great central tower over the main entrance rises to the elevation of 200 feet, and is, therefore, one of the very highest towers on the continent; indeed, but six towers in the United States surpass it in magnificence of elevation. The sunlight streams into the great structure through unnumbered panes represented by 20,000 square feet of glass, an amount sufficient to cover $4\frac{1}{2}$ acres, or bound a surface one foot wide and four miles long. The aggregate exhibit surface contained in all the buildings is over 14 acres. The Art building has a frontage of 150 feet, and the stock buildings are very extensive.

Detroit's situation is in the highest degree favorable toward building up an immense metropolitan center. She has over 200 incorporated companies, engaged in a great variety of industry, and annually turning out products that are valued at millions. She has one of the largest seed industries in the world. In the manufacture of fine-cut tobacco, her position is unrivaled. Her car-shops and wheel foundries are among the most extensive. She is the center of the stove industry. Her drug and chemical trade is very extensive. Two hundred thousand dollars per year for public gas and electricity implies that she is one of the best lighted cities in America. Three millions have been expended for parks and public buildings. Her avenues are broad, beautifully shaded with oak, elm and maple, and scrupulously clean; and travelers are loud in their praises of the long and delightful drives. Belle Isle park, the gem of the lakes, attracts hosts of strangers.

The broad Boulevard encircles the city from Belle Isle bridge to Springwells, over 12 miles in length. The water and sewerage systems are estimated at over six million dollars. The vast commerce of the Great Lakes passes through her beautiful river, with a greater aggregate tonnage than enters the river Thames, or in six months surpassing that of the Suez canal for one year. On an average, a lake craft passes Detroit every $7\frac{1}{2}$ minutes throughout the season. The coming exposition will be one of her greatest undertakings, as everything is to be carried out on a grand scale. The admirable site, 70 acres in extent, is bounded by two streams, and is but a thousand yards beyond the city's western line. The grounds are penetrated by street car, electric railway and railroad, while the river offers the delightful diversion of a water trip to the fair and expo-

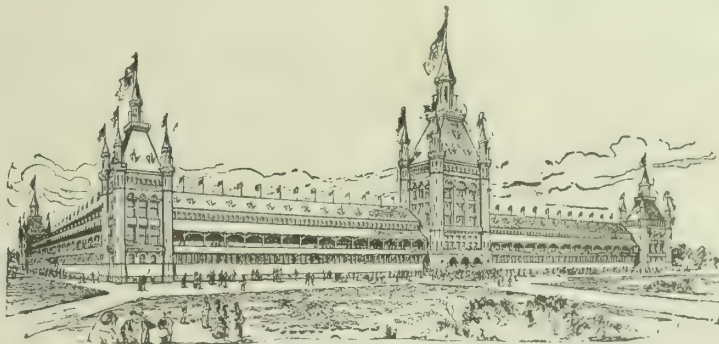


VIEW OF NORTHERN PORTION OF THE CITY OF RIVERSIDE.

sition. All exhibits can be unloaded from the cars or steamers directly into the buildings.

HOW GRAIN COMES OUT OF A GRAIN-BIN.—St. Paul grain men, says the *Pioneer Press* of that city, have been vexing their souls over a prob-

at the bottom, of course! W. A. Van Styke was determined to get at the facts and watched the bin with his eagle eye very closely the other day, after having caused a layer of barley to be placed on top of several layers of different kinds of wheat. The spout was opened, and,



MAIN BUILDING OF THE DETROIT EXPOSITION.

lem touching a grain-bin and contents. It is this:

"Given a bin, dump into it, separately five distinct qualities of wheat; open the spout at the bottom, and the query is, which layer of wheat comes out first? The uninitiated say at once, with a few exceptions: 'The first layer

strange to say, the barley came rushing out first.

A SETTLER in Warner valley received a notice from one of the swamp land-bosses to stop irrigating his (the settler's) claim, as he, the boss, claimed it as swamp.

Riverside.

Our Correspondent in San Bernardino County.

Riverside is the name of a thriving and beautiful city, and the title of a colony or settlement which embraces 56 square miles. All of this region is incorporated, and the city proper is merely the nucleus of the large colony. There is no similar area on the Pacific Coast, if indeed in the United States, so beautifully planned, so thoroughly tilled, and so productive of the luscious fruits of earth. We append below an interesting description of Riverside, lately issued by the Board of Trade of that place, and the engravings used herewith are from the same source. As the pioneer and most remarkable colony in California, the sketch deserves to be read carefully, and few will read it without interest and admiration:

It is but 18 years since a small band of hopeful men, wearied with the cyclones, blizzards, and other inclemencies of the Northwestern States, east of the Mississippi, sought a place upon the Pacific Coast for a more congenial home. After much investigation they decided upon Southern California, and finally selected a few thousand acres of land upon the south bank of the Santa Ana river, in San Bernardino county, including that portion of the elevated plain upon which the city of Riverside is located.

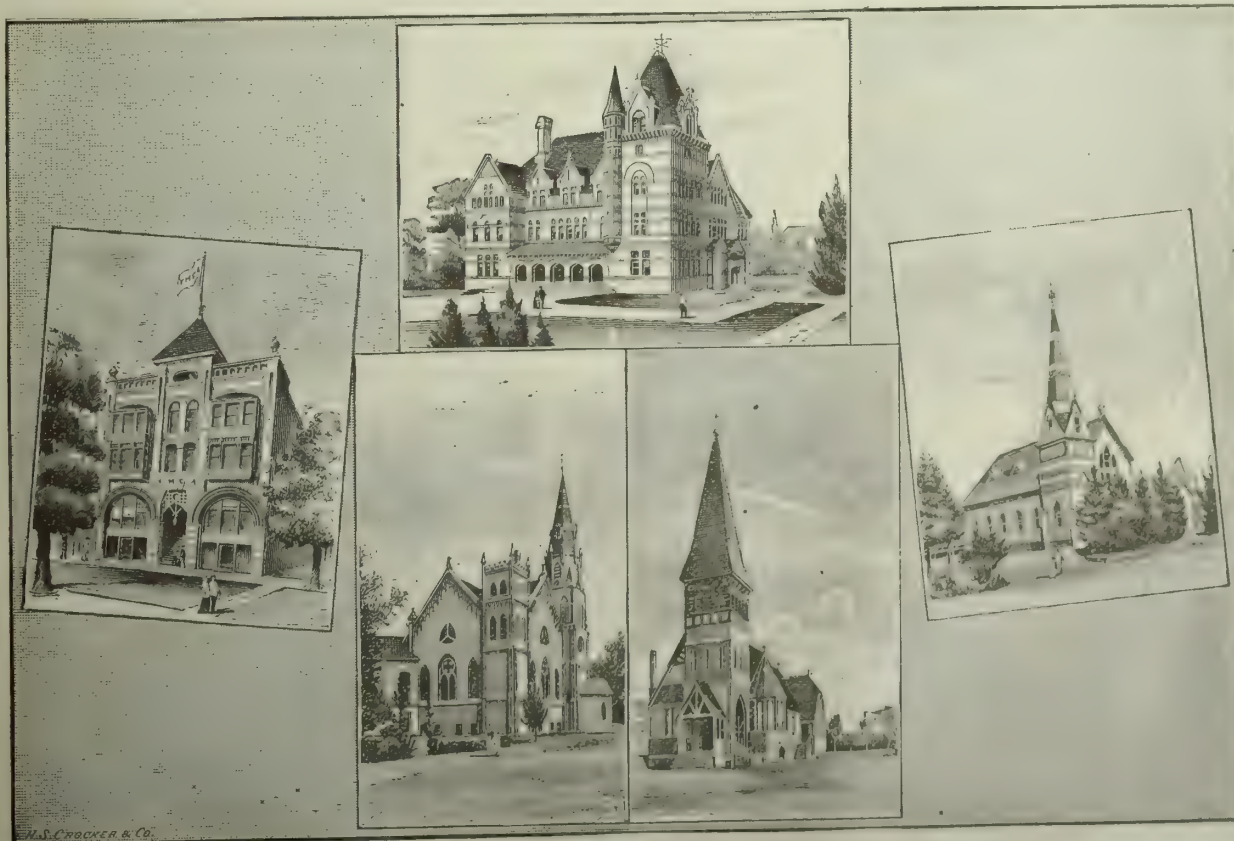
When a retrospective view is taken of the times in which this settlement was made, the condition of the country, financially and politically, and the discouraging nature of their surroundings, it must be admitted that these pioneers "built wiser than they knew," and that to most persons their venture seemed a visionary one.

Irrigation Necessary.

Southern California was an arid section, subject to long periods of excessive drouth, with an occasional wet season. No crop of any kind could be relied upon with any certainty without irrigation, and irrigation as introduced by the Padres and their successors was of a very primitive character—requiring no expensive structures to turn the water from its natural channel and conduct it along the lowlands bordering the stream.

These settlers were, however, more ambitious; they were not satisfied to locate upon the low flat lands bordering the river, but selected the high mesas where unobstructed views could be had of the magnificent horizon around them, and where health and strength were to be inspired from every breeze that crossed the plains from mountain or sea.

This required comparatively a new departure for Southern California. The water for irrigation (which was the life of the enterprise) must be conducted out upon the mesas miles away from the channel of the river, and hundreds of feet above it—through rocky hillsides and across deep arroyos, requiring a higher order of engineering skill than had heretofore been given to it, and a far greater expenditure of money. Therefore,



PUBLIC BUILDINGS AT RIVERSIDE, SAN BERNARDINO CO.

1—High School.

2—Y. M. C. A. Building.

3—Congregational Church.

4—Episcopalian Church.

5—Methodist Episcopal Church.

instead of receiving encouragement and cordial support from the settlers upon the adjoining well-watered territory of the San Bernardino rancho, they were frequently ridiculed and discouraged by the statement that they would be compelled to abandon their project, and that "their structures would ultimately be hauled away for fuel."

It must also be remembered that they came among a people largely composed of descendants of the Spanish, and a mixed Spanish and Indian race, speaking a foreign language and naturally suspicious and jealous of Americans. They were of totally different habits and customs, with whom it was difficult to communicate, and from whom no information was to be had in regard to fruit-growing by irrigation (the principal occupation in which the new-comers proposed to engage) or the varieties of fruit best adapted to this soil and climate. The plains upon which they located were simply pasture-lands, destitute of water even for domestic use, and, owing to the deficiency of the annual rainfall, had for centuries yielded but a scanty supply of feed for a few months each year to roving bands of cattle and sheep, and from June to November were dry and barren as a desert.

Construction of Flumes and Ditches.

Cut off from all associations with their kindred, and with exceedingly limited and irregular means of communication with them, and subject to the difficulties above named, it must be evident that there was not a place upon the Pacific Coast whose foundations were laid more upon the "evidence of things unseen and the substance of things hoped for" than this colony of Riverside. Yet, with probably more of the disappointments and discouragements allotted to the average settler in new places, they persevered; and with limited means and experience in such matters, constructed dams, flumes and ditches to control and lead the waters of the Santa Ana river out upon the thirsty and apparently barren lands.

Unlike non-irrigated sections of the State, it required nearly a year's time and the expenditure of some \$50,000 before the waters of the Santa Ana were flowing through the new channels to the original town plat of Riverside; and no planting of trees or vines could be safely done until the water was available in quantity and permanency. Several years more elapsed before its distribution gave even a slight promise of the rich fruitage that would result to the settlers from this large expenditure of time and money. The first plantings were made in the northern portion of the city as now incorporated. This is the principal business center of the city, in which the hotels, churches, schools, postoffice, and business houses are grouped, and the additions to these are fast displacing the beautiful blocks of orange trees that surrounded the earlier homes of the pioneers.

The Experimental Period.

The building of a home and the securing of profitable returns from horticultural investments is not accomplished in a year or two by even those familiar with all the necessities or advantages of even a favored land like Southern California. It was especially more difficult and discouraging for those who were only accustomed to the soils, climate, methods of cultivation, and productions of a semi-frigid country.

The men who were accustomed to grow pears and apples, wheat and corn in any of the Northern States had much to learn before they could successfully grow the grape and make a raisin, or plant and care for a grove of oranges, lemons or olives, especially by irrigation. It therefore required some five or six years and more of experimental work to determine what fruits were best adapted to this locality, what systems of irrigation and cultivation were the most economical and would produce the best results, and what methods of preparing and packing their products would satisfy a critical public and successfully compete with imported fruits, and also be best suited for shipment to distant markets. All of this was new and untried by the people who settled here, and most of it was new to California and the United States, and upon the success or failure of this venture largely depended the introduction of new and valuable industries to the Pacific Coast.

Up to and including the year 1874 the growth of the settlement was quite limited, only some 1500 acres having been brought under cultivation to that time; but sufficient had been accomplished to encourage others to locate around and unite with them.

During the years 1875 and 1876, the Riverside Land and Irrigating Company was organized. It purchased all the lands and water rights of the original corporation, the Southern California Colony Association. It also purchased some 3500 acres from Messrs. W. T. Sayward and S. C. Evans; and the

same number of acres from the Tin Company tract, and by these purchases consolidated all the contiguous landed interests in a territory nearly fifteen miles long and three miles wide, including all the water rights that had been appropriated from the Santa Ana river for these lands, for domestic use, irrigation and manufacturing purposes. It expended during these and succeeding years some \$200,000 in enlarging and extending the first canal, in constructing the lower canal and the distributing ditches and structures required for such an extended system of irrigation—the largest and most comprehensive at that time in California.

The new territory was subdivided into ten-acre lots conveniently located upon broad avenues, with cross-streets intersecting these every half mile. Magnolia avenue with its northern extension, Brockton avenue, is 20 miles long, extending from the business center of Riverside in a southwesterly direction to the base of the Coast Range of mountains, and through South Riverside. Seventeen miles of this distance is an air line; and the avenue through this portion is 132 feet wide, divided by rows of handsome evergreen trees into two roadways and two sidewalks.

Riverside's Growth

The growth of the settlement steadily increasing, constant additions to the systems of water supply were required; and during the years 1885, 1886, 1887 and 1888, large expenditures were made for water, both for irrigating and domestic use.

The growth of the colony from its foundation to the present time is best shown by the following summary of the population and wealth of the place: Population, 6000; acreage under cultivation, 10,000; number of citrus fruit trees, 650,000; number of raisin grapevines, 1,350,000; number of acres of alfalfa, 600; number of deciduous fruit trees, 200,000; assessed value of property for taxation, \$4,000,000; annual value of products of farm and orchard, \$1,100,750; length of main canals, 50 miles; length of distributing canals, 125 miles; length of pipe lines of all sizes, 42 miles; length of streets and avenues, 175 miles; length of street railways, 15 miles; cost of water system, over \$1,000,000; cost of street railways, \$73,000; cost of gas works, \$30,000; cost of church property, \$100,000; cost of school property, \$125,000. Incomes from fruit farms for past year: Citrus fruits, \$630,000; raisins, \$357,000; deciduous fruits, dried, \$80,000; hay, nursery stock, etc., \$33,750.

The number of acres of land in the immediate vicinity of Riverside's business center adapted to the growth of citrus fruits and the raisin grape and supplied with water for irrigation under the different systems, are as follows, viz.: Riverside Land and Irrigating Co., and Riverside Land Co., 12,000 acres; Gage system, 12,000; Vivendi Water Co., 3500; North Riverside Water Co., 2000; Jurupa Land and Water Co., 10,000 acres. In addition to these there is within the same territory an area adapted to alfalfa, corn and vegetables, mostly river-bottom lands, equal to 5000 acres, making a total now supplied with water and ready for cultivation 44,500 acres. These lands are capable of sustaining in a bountiful manner a population of 50,000 people. We have therefore room at Riverside and its immediate vicinity for 44,000 more people than we now have.

Oranges and Raisins.

The fame of Riverside as an orange-producer is almost world-wide. It was here that the first trees of the celebrated Washington Navel orange (which took the first prize at the World's Exposition at New Orleans) were planted, and to-day the orange products of the place consist mostly of that variety. They bring the highest price in the markets of the East, and practically rule the orange markets of the United States. Riverside raisins are also becoming equally famous and valuable. About 4000 boxes of these raisins were sent to London last year, and they brought better prices than the celebrated layers from Malaga. During the season the several packing companies at Riverside give employment to more than 2000 people.

Riverside is located on the new main line of the Atchison, Topeka & Santa Fe railroad, completed and in operation to San Diego via Santa Ana and Oceanside, and seven miles southeast of the Southern Pacific railroad at Colton, and connected with it by the Motor railroad. It is 53 miles in a direct line southeast of Los Angeles, and some nine miles southwest of San Bernardino, and ninety miles due north of San Diego, all county seats of their respective counties.

Thirty-three square miles of the colony tract are divided into 5, 10, 20 and 40 acre tracts for small fruit farms. Twenty-one square miles are yet used for grazing purposes, being at present above any system of irrigation. It can, however, all be irrigated

from the upper tributaries of the Santa Ana, and will be, as soon as the increase of population demands it.

The Business Portion of the City of Riverside.

The business part of Riverside is well constructed, and contains several fine brick blocks. The Rowell hotel and the Arlington House are the two largest structures in the city at present, though these will soon be eclipsed by a fine opera-house now in process of construction. The Rowell is an excellent hotel for tourists and commercial travelers and is largely patronized. The Glenwood is a splendid family hotel, with the most comfortable arrangements possible for the accommodation of sojourning visitors. As indicated in the foregoing description, the city has a splendid water supply, has a gas company, and is moving for an electric-light plant. The business streets are well graded and macadamized and lined with sidewalks of artificial stone. The residence streets are beautifully shaded. There is a fresh, inviting look to the place, and one is loth to leave a city so highly favored and so well kept. The traveler who wishes to see California thoroughly, should by all means visit Riverside. H. G. P.

AGRICULTURAL NOTES.

CALIFORNIA.

Alameda.

HORSE AUCTION.—Oakland Enquirer, June 7: Henry W. Woods of Napa offered for sale at auction some 40 horses last Saturday at the Gregory stable, in Centerville. The band consisted of brood mares, matched teams, single drivers, work and saddle horses. The stock was of Belmont and Norfolk breeding, from 3 to 7 years old. W. T. Ralph was the auctioneer. A three-year-old gray horse, after much talk, was knocked down to young Brewer for \$37.50. A four-year-old brown horse was sold to Judge Tilden for \$120. A four-year-old brown horse was knocked down to G. A. Eaton for \$40. A good span of matched roadsters, six years old, a mare and horse, were next offered with privilege of the span. G. A. Eaton bid \$90 and took the mare. The horse was bid off at \$95 by an unknown. This was discouraging, as the span were cheap at \$225. A three-year-old bay filly, gentle and kind, was sold for \$70 to Mr. Naismith. A young bay mare, heavy with foal, sold for \$55 to G. A. Eaton. A three-year-old bay filly was knocked off at \$57.50 to Frank Cloudings, and a brown horse, four years old, sold for \$65 to Frank T. Haws. This closed the auction, as Mr. Ralph stated that if Mr. Woods wanted to give away any stock, he could do it himself and save paying an auctioneer.

Colusa.

IRRIGATION MATTERS.—Colusa Sun, June 8: The Directors of Central Irrigation District met last Tuesday and determined to sell \$150,000 of the bonds of the district and proceed immediately with the work. The board adjourned to next Tuesday, at which time the regular advertisement required by law will be ordered. There is now no doubt as to the sale of the bonds. Already several persons have opened negotiations for the same. It is possible to have work actually begin by the 1st of August. The work that will require the greatest length of time is the excavation at the head of the canal—between that and Stony creek. It is important that the brickwork shall commence immediately, as the headgate ought to go in this fall, and it is no small job. It ought to be finished before there is any chance for a rise in the river. It will hardly be possible to get the work done so as to be of any benefit to the next crop, and hence the headgate is the principal work now to be rushed. The other will be done on the cheapest plan to have it all completed in a year from this coming fall.

Contra Costa.

AGRICULTURAL DIRECTORS' MEETING.—Martinez Item, June 6: At the first meeting of the Directors of Agricultural District No. 23, Geo. P. Loucks was unanimously elected president. H. C. Raap was elected secretary. R. C. Terry was unanimously elected treasurer. By allotment, the directors' terms of office are to be as follows: For one year—J. H. Tennent and R. G. Dean. For two years—H. Raap and R. C. Terry. For three years—D. N. Sberburne and J. E. Durham. For four years—F. Sanford and G. P. Loucks. The following resolution was passed: That the Contra Costa Agricultural District No. 23 accept the proposition of the Contra Costa Agricultural and Industrial Association to turn over its property and assets to the former organization, on condition that the said organization assume the indebtedness of the latter organization and allow the life memberships of L. L. Robinson and Joseph Esenthal, with all privileges conferred by the same, or refund to each the sum of \$50. The following committee was appointed to suggest a time for holding the fair, and to draw up a set of by-laws: Jas. H. Tennent, F. Sanford, R. G. Dean. Adjourned to meet again at Concord, June 15th, at 10 A. M.

El Dorado.

A NEW BEE JOURNAL.—Republican, June 6: Placerville now enjoys the distinction of pub-

lishing a monthly magazine, the first number of which appeared last week. It is called "The Western Apian," and is devoted to the interests of bee-raising, particularly on the Pacific Coast, which, it is said, requires different management of the apiary from that in the Eastern States in order to win success. The editors and proprietors are S. L. Watkins and F. E. McCallum. The former is a practical bee-raiser, having upward of 200 stands in his apiary. The latter is the Methodist minister, who is an amateur printer.

Fresno.

RAISIN PACK.—Fresno Republican, June 7: Frank Pasmore, of the California Raisin and Fruit Co., arrived yesterday from S. F., for the purpose of having work begun immediately upon two additions to their packing-house in this city. The additions will comprise an engine-house, a packing-house and a box factory. The main building will be 90x110 feet, and one of the additions will be 40x50 feet. When these shall have been constructed the company will be enabled to handle all the dried fruit that may be brought to their establishment. The engines and machinery have been built and nothing remains but to put them in place. "We do not propose to go into the business of buying green fruits this year, and we will give the fruit-growers a chance to do their own drying. We will buy the dried fruit and pack and ship it." "From what you have seen of the country, what do you think of the coming raisin crop of Fresno county?" was asked. "It will, I think, be tremendous. There will be over 600,000 boxes of raisins, an increase of from 40 to 50 per cent over last year. No grasshoppers have appeared and it is getting too late for them now. Everything is favorable. I have seen no grape-ly, and I never saw the vines doing so well as they are doing this year."

Humboldt.

THE SHEEP SURPASS THE PEACHES.—Eureka Standard, June 6: T. B. LeSieur of Garberville reports the finest crop prospect and the best feed for cattle ever known in that vicinity. The yield of wool and the crop of lambs is the best ever known. Mr. LeSieur says that on the South Fork, at Camp Grant and Myers', the peach crop is badly damaged by blight, and he thinks there will not be to exceed one-fourth of a crop. The earlier and better varieties suffer the most. The peach crop has never before been damaged in that vicinity.

Kern.

HAYMAKING GALORE.—Bakersfield Echo, June 6: C. W. Jackson is now running 10 camps of haymakers of 30 men each, and would be glad to employ as many more. The Poso ranch is now the largest hay ranch in the State, if not in the world. The number of acres runs into the thousands that are seeded to alfalfa and that will be cut from three to five times. Between 30,000 and 40,000 head of cattle were fed there last winter, many being shipped in from Arizona by the trainload.

RIPE PEACHES have been in market for some days. From now until the middle or last of October there will be fresh fruit of this variety to be had here, and in one or two cases ripe peaches have been gathered from the tree as late as December. Those ripening now are Briggs' Red May and are large and well-flavored for an early fruit. A score of other varieties will come along later. Of these the Orange and George's Ching are most extensively grown, the latter especially being a favorite on account of its good keeping qualities. Fresh peaches for six or seven months out of 12 ought to satisfy an ordinary appetite.

Los Angeles.

ORANGES.—Alhambra Cor. Times, June 1: Up to date 127 cars of oranges have been shipped from this depot this season. This is the largest number shipped from any station along the line of the S. P. R. R. except Colton, and that station relies on Riverside for its shipments. There are eight or ten cars more to go, mostly Mediterranean Sweets. In addition to the above, about 12 cars have been diverted to other depots—a good showing for this locality. Orange trees are being planted in every direction.

Mendocino.

UKIAH WOOL SALE.—Freight Agent Thorn writes the Republican: Owing to an error in the day of the week as date set for wool sale at Ukiah, falling on Saturday instead of Wednesday, as intended, it has been decided best for all concerned to change the day of sale from June 15th to Wednesday, June 19th. We have therefore notified wool-buyers that the sale will take place at Ukiah on Wednesday, June 19, 1889, without further notice.

Monterey.

CROP NOTES.—Salinas Index, June 6: The grain from Pajaro to Soledad will not yield more than half a crop. The early sown is fairly good. The western side of the Salinas river has a very good crop. Most of the late sown is a failure, some of it not being tall enough to cut for hay. Continuing south, there is a decided improvement, Kings City having an excellent crop. Mr. Downing's crop, on the Danphy ranch, is one of the finest in the county. For some reason the barley heads are falling off, till in some places the crop looks as though it had been headed. San Lucas and Long Valley have a fine crop, but not so far advanced as at Kings City. Paris Valley, San Ardo, Bradley and Hames valley have reason to be proud. Jolon and Pleyto also report fine prospects. Indian valley has an excellent crop, nearly all wheat.

Vineyard canyon, Ranchita and the surrounding country are waving with beautiful barley and wheat. (Two years ago a great deal of this country was vacant, not a house being seen for miles.) Upper Cholame has a fine crop; the lower end of the valley is about an average. Peach Tree and Priest valley have a fine prospect. Priest valley is about three to four weeks later than the valley section of the country. The first hay was cut here about May 25th. . . . The fruit crop of the county, so far as noticed, is good, most of the peach and apple trees being heavily loaded. In the small canyons a number of orchards have been planted during the past year and the trees are doing well.

Napa.

NAPA CANNERY.—*Register*, June 4: The well-equipped packing establishment that fronts a railroad line on one side and a steamboat line on the other, is no longer to remain idle. John R. Coe, who has already put much of his time and coin into it, now ventures upon the business of an uncertain season with more of the same precious ingredients. A big invoice of sugar has arrived for the cannery, the tin is ready, workmen are being engaged, fruit men are finding their way to the reopened captain's office. J. J. Groom, the manager, is on hand, and all is in readiness for the commencement of business Thursday. Royal Ann cherries are the first to receive attention.

Nevada.

A SWEDISH CONVERT TO OLIVE CULTURE.—*Tidings*, June 7: S. J. Segerstrand, who for the past seven years has resided at Pet Hill, where he has superintended the planting, care and cultivation of thousands of fruit trees, left on Wednesday to visit his old home in Sweden. He will also devote some time to the study of olive culture in the southern part of France, at the same time acquainting himself with the processes for manufacturing the oil. Italian olive culture and oil-making will also be studied. Having accomplished this, Mr. Segerstrand will gather about him a colony of industrious, sober people, and with them again seek the foothills of Nevada county and of Yuba. Here the colony will be established and the olive be cultivated, the manufacture of oil following in due season.

THE FAIR DIRECTORS held their annual meeting Saturday and elected officers for the ensuing year. Samuel Granger was re-elected president. Geo. Fletcher declining to serve again as secretary, I. J. Rolfe was elected to the position. E. M. Preston will account for all moneys. The Committee on Park was given further time. Messrs. Granger and Mitchell are to arrange for the pavilion. Messrs. Jacobs, Marsh and Nickerson are to make contracts for printing. The speed program was adopted without a change. As reported by the Committee on Revision, the list of premiums was adopted.

HORTICULTURAL PROGRESS.—*Cor. Alta*, June 8: To show what the soil could produce, I was taken to the Allison ranch, a short distance from Nevada City, which contains in full bearing nearly every variety of fruit and vine that is grown anywhere, except those native to tropical climes. Many other old orchards and many more new ones were pointed out to me in the short ride I took in the suburbs of Nevada City and Grass Valley. I noticed many large fields and small holdings being cleared of the pines, ready to be planted in fruit next season. On account of my time being limited, I was unable to visit the best portion of the county, where, I am told, a much further advancement has been made in tree-planting.

San Bernardino.

BUGS QUARANTINED.—*Ontario Record*, June 5: W. E. Collins confiscated some oranges that had red scale on them on the morning train from Los Angeles to Colton Saturday. They were promptly cremated, and the news and railroad companies will receive a large pointer regarding the matter. They have promised to allow none but San Bernardino county oranges to be sold on the trains, and are liable to prosecution under the insect-pest law. We are glad to note that Mr. Collins and the other members of the County Board of Horticulture are vigilant in guarding the county against all forms of scale.

San Diego.

ENLARGING THE OIL FACTORY.—*National City Record*, June 6: The present outlook for the olive crop being so favorable for a larger yield than ever before, Frank A. Kimball has decided to enlarge his factory, and Fred Copeland is now setting the stakes for a building 50x70 feet. The contract has been let for one story and basement.

SAN MARCOS PRODUCTS.—A. D. Stocking has recently been visiting at Escondido and in the San Marcos grant, and yesterday he brought to this office wild celery 7 feet high and wheat 6 feet 3 inches tall, the latter being the average in a field of 50 acres. He also displayed a new variety of rust-proof wheat which it is hard to equal for size of kernel. Mr. Stocking is very enthusiastic over the country to the north of us and the people who inhabit it, and speaks of large orange orchards that thrive without irrigation.

San Mateo.

POULTRY FARM.—*Times and Gazette*, June 1: Menlo Park has a new attraction in the shape of a chicken farm, situated at Sherwood Hall, the residence of Timothy Hopkins. The visitor is impressed not only with the extensiveness of its yards and buildings and great numbers of

fowl, but with the scientific manner in which it is conducted. The farm covers an area of eight acres and is divided into 20 yards or apartments. The brood-houses are two in number and contain the latest improved incubators—the Oxford and Monarch—the capacities of which are 400 and 600 eggs, respectively. The former is heated by gas and the latter by water. When the little chick first breaks through the shell it does not meet with the tender care of a matured mother, but the genius of man has provided a good substitute. The chickens are gathered into the first yard, which is called the "mother." Here are small heaps of sand which are heated by subterranean gas pipes. The little ones are evidently as contented as if sheltered beneath the wing of a maternal protector, for they nestle cozily in the warm sand and it is almost impossible to drive them away from it. As they grow older they are advanced from yard to yard until the main one is reached. The chickens are then ready for the market and are disposed of, principally at the Del Monte hotel and private residences around Menlo. As fast as the eggs are hatched new lots are supplied. The amount of eggs sold per month from this farm during the laying season is 6000 dozen, and the average monthly cost of feed is \$300. The farm is in charge of A. S. Benston of Philadelphia, who has made poultry-raising a life study.

Santa Cruz.

POULTRY POISONED.—*Pajaronian*, June 6: W. L. Hoyt had 300 small chickens poisoned on his place near Vega one day about two weeks ago. It is supposed that poisoned wheat was mixed with the feed by a tramp who had been ordered off the place. [Such miscreants are worse than coyotes and should be outlawed; yet we would not favor a scalp bounty for such cases.—*Eds. Press*]

THE BERRY-GROWERS are feeling better this week, for now they can make their shipments from Watsonville. The railroad company now runs a special freight from Aptos each afternoon, making connection with the north-bound freight at Pajaro. The special is a lumber and fruit train, and leaves Watsonville about 4:30 P. M., saving our orchardists the haul to Pajaro.

Solano.

EARLY FIGS.—*Bulletin*, June 10: The first figs of the season raised in the vicinity of Winters were received to-day by Onesti & Connor. They were grown on the Pleasant Valley ranch of H. & W. Brinck, are of large size, fully ripe and excellent in flavor. The consignment sold readily at 60 cents per pound.

Sutter.

FRUIT SHIPMENTS.—*Appeal*, June 7: Yesterday the Sutter Fruit Co. and the Feather River Orchard Co. loaded a car of over 1000 boxes of peaches, apricots and cherry plums, which left by the Oregon express for Minneapolis. About a half-carload of peaches and apricots was shipped to the Bay from the Abbott & Phillips place. By express the shipments were: 60 boxes cherry plums, 63 boxes blackberries and 27 boxes peaches. Over 1800 pounds of cucumbers were shipped yesterday.

HOP NOTES.—*Four Corners*, June 8: Indications point to a good average crop of hops from Bear river. The vines are strong and thrifty, and the stand is exceptionally good. The yards show a greater uniformity this year than last, and it would seem we ought to have a full yield. Two weeks ago we were in the Nicolaus yards and were surprised to see how completely the morning-glory had been eradicated from ground that was matted with it two years ago. Mr. Orth deserves especial credit for his success in this line. Mr. Grider of Sacramento, a hop-drier and expert, has planted 15 acres of new hops adjoining Nicolaus on the east. The vines are looking fine and promise 1500 or 1800 pounds. D. H. Hopkins has 14 acres of hops that would be a credit to any one.

AN ORCHARD MEETING.—*Farmer*, June 7: A visiting meeting of the Sutter Horticultural Society took place at the orchard of R. C. Kelle Wednesday. After the majority of the members had arrived, they were conducted through the large vineyard and orchard by Mr. Kelle, who took pains to interest all. In the 40-acre vineyard could be found all the varieties of grapes suitable to the soil and market. Notes were taken of the different stages of the grapes, their ripening, etc., and the conditions of the soil. On a few vines a pest in the form of a beetle was found to have been at work, but no serious damage was done. The members discussed the mode of exterminating the pest and also examined the fruit trees for indications of pests. After a very instructive and interesting hour, the party returned to the house, where the ladies had prepared a bounteous spread of ice-cream, cake and lemonade under the large fig trees. The repast was highly relished and a vote of thanks extended to Mr. Kelle and the ladies for the pleasing manner in which they entertained those present. These visiting meetings will no doubt be continued, as they are very instructive to all interested in horticultural work.

Tulare.

LIFTING WATER.—*Visalia Times*, June 6: A. P. Osborn's residence and the best part of his land are located on high grounds on the bank of Tule river, at Rural. To get water on this land without going several miles up the river and bringing out a ditch, Mr. Osborn has placed in the river a wheel 25 feet in diameter and 5 feet wide. Surrounding this wheel on

either side are 40 boxes, each holding four gallons of water, making in all 80 boxes, with an entire lifting capacity of 320 gallons at each revolution of the wheel, which is turned by the current of the river. As the boxes reach an elevation of 22 feet, the water in them is emptied into a flume, which conducts it on-ward into an irrigation ditch. This elevating the water 22 feet is only sufficient to place it on the flat whereon is done the farming, and will not take it to the knoll on which stands the residence. This is accomplished by a hydraulic ram. A part of the water reaching the top of the river bank is allowed to run back down the steep bank through a pipe, thus furnishing motive-power to run the ram, which sends water up to the house. The wheel and flume cost, when completed, \$150, and considering the small liability of its becoming damaged, it is certainly preferable to keeping in repair several miles of ditch.

THE SQUIRREL PEST.—Farmers are again coming forward with complaints of the destruction of wheat by squirrels. I. N. Wright of Tulare suggests that the Board of Supervisors let a contract, or contracts, to responsible persons to poison all that could be found. By this means all persons owning land would have to bear their proportion of the cost, and every quarter-section in the county would be visited by the persons having the contract. This plan might require the services of a large corps of men, but they would undoubtedly do effectual work, and it is a better scheme than paying bounties on scalps.

GRASSHOPPERS TROUBLESOME.—*Delta*, June 6: Grasshoppers are proving very destructive to orchards and vines west of Goshen and elsewhere in the county. Geo. West of the Viticultural Commission has been experimenting on vineyards at Minturn with a remedy suggested through the executive officer against grasshoppers, using ingredients in the following proportions: Forty pounds bran, 15 pounds mid dlings, 2 gallons cheap syrup, 20 pounds arsenic, mixed soft with water; a tablespoonful thrown by the side of each vine or tree. Cost per acre for trees, 25 cents; for vines, 50 cents. He reports that the hoppers eat greedily and die in their tracks.

TURN THE POULTRY LOOSE ON THEM.—Henry Byrd thinks the grasshoppers that are so thick over a strip of country north of Visalia were hatched in the fields and grasses along the St. John river. It strikes us that on those ranches chickens and turkeys would thrive with scarcely any attention. Grasshoppers are excellent food for fowls, and they get the requisite exercise in catching their food. A few thousand fowls in any community would naturally lessen the grasshopper pest.

A HOLD OVER PUMPKIN.—*Traver Advocate*, June 8: F. E. Stoneman, who lives near Traver, last fall secured from Mr. Stewart, a neighbor, a large pumpkin, weighing about 50 pounds. He has kept it in his barn or cellar away from the sun and frost ever since he got it. To-day it is as sound as when it was first picked, although it is drawing near the season of the year for the same vegetable to be plentiful in the market again.

Yolo.

HONEY FROM DANDELIONS.—*Woodland Mail*: Dandelions, which are deemed a pest and nuisance by many, are considered a very nice flower by a well-known Yolo apiarist, who says that his bees have pastured on the golden flowers all the spring and made a lot of beautiful honey. So it will be seen that even the despised dandelion has a place in the economy of nature; and besides forming golden honey, its leaves make good greens and its roots an excellent tonic.

IN CAPAY VALLEY.—*Esperanza Cor. Record*, June 8: For the past four weeks ripe luscious peaches have been eaten from the Cadanassa orchards. The grapes are now ripe on the Flint place above Rumsey. Large, firm, ripe blackberries were taken into Woodland last Monday from the Cache creek orchards, and all this without irrigation. Ripe peaches grown in Capay have been on the hotel table for the past week. The new orchards that have been set out here are looking unusually thrifty. Grain is ripening fast, headers are running, and crops surpass anything yet seen. There were over 3000 tons of hay out from the Bonyne tract this year, some of it going four tons to the acre from second year's volunteer.

ARIZONA.

POTATOES.—*Tucson Star*: Last year a few potatoes were raised in the Santa Cruz valley opposite Tucson as an experiment. The result

was that a very superior spud, large, dry and palatable, was produced. Last February the same parties planted ten acres. The crop is now maturing and of a very superior quality. They are larger and better than those imported from California. This ten acres will give to the Tucson market more than 135,000 pounds of potatoes from this crop.

OREGON.

NORTHEASTERN OREGON.—*Weston Cor. Oregonian*, May 30: Indications are most favorable for a more than average grain crop this season. Fall-sown wheat in many fields is heading out. Spring grain is not far behind the fall. Owing to the late rains, the growth is very rank, stalks in many fields averaging from three to four feet high at the present time.

GRANDE RONDE VALLEY, of which La Grande is the commercial center, is one of the most fertile sections in the Pacific Northwest. It supplies food for the miners, hay for the Columbia basin counties, barley for St. Louis breweries, horses for the East and cattle for the West. A crop failure here has never been known, and 35 bushels of wheat and 75 bushels of oats to the acre is not an extraordinary yield.

EAGLE VALLEY, UNION CO.—*East Oregon Republican*: Eagle valley has never before been in so prosperous a condition. Hundreds of acres of waving alfalfa, almost ready for mowing, greet the eye, and the purple bloom presents a beautiful sight. Thousands of tons will be raised this season. Last winter stock from all parts of the country was fed here. A single acre of land will produce during the season from five to seven tons of hay. . . . Another rapidly growing industry in Eagle valley is bee-keeping. Parker, Barrows & Co. are now the principal apiarists here, Mr. Parker having made it a study for a long time. The business requires close attention and a thorough knowledge of the ways of the Apis Mellifica. That this is a great bee country is shown by one colony belonging to Mr. Parker, producing 200 pounds of honey that readily sold for 25 cents per pound.

Baling Hay.

In order to test the difference in Bale Rope, about which there is much discussion, we to-day used one coil Eastern made rope, 60 lbs, which baled 67 bales hay, weighing 84 tons, taking about 7 lbs rope per ton, and one coil of TUBBS CORDAGE CO.'S make, 57 lbs, which baled 88 bales, weighing 114 tons, taking 4 lbs per ton. These facts prove that it takes about 40 per cent more of Eastern rope to bale a ton of hay than it does of the Tubbs Rope. We used six strands to a bale and not a strand of the Tubbs Rope broke.

J. R. WRIGHT, Owner. MARTIN WOLLESON, Balers
Calistoga, June 5, 1889.
I this day baled my hay with TUBBS CORDAGE CO.'S Bale Rope, five strands to the bale, and it took less than four pounds rope to bale a ton. Not a strand broke.
Calistoga, June 6, 1889. J. O. BUTTERFIELD.

\$2500—NURSERY.

MUST BE SOLD IN SIXTY DAYS!

One-half interest in a general Nursery in one of the best counties in the State. 100,000 Peach and Almond seedlings can be budded in June. This is a rare chance for a permanent and paying investment. Full particulars on application. Address

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H. E. CARPENTER,

Veterinary Surgeon.

Graduate of Ontario Veterinary College, Toronto, Canada.

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NEW MANAGEMENT.

To be reached via Siles or Calistoga by daily stages connecting with trains. Good Board. Pleasant Cottages. Five good Mineral Springs. The coolest and quietest spot in the county. Camping facilities. Polite attention. Reasonable prices. Old patrons keep coming every year.

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and on hand. Also Traction Engines, heavy and light, suitable for plowing. Well drilling a specialty. Ad'resses, with stamp, D. J. LYNCH, Kelseyville, Lake Co., Cal.

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Sure Cure for Diabetes, Catarrh of the Bladder, and all Disorders of the Liver and Urinary Organs.

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"A WORLD-BEATER."

"GOOD TIMBER AND BONE DRY."

THE RUSHFORD WAGON

Will Carry the Earth!



[From the Montague Herald, Montague, Siskiyou Co., Cal., May 1, 1889.]

One day last week a huge landslide on Ball's mountain caught an Oregon teamster's wagon and buried it beneath several tons of earth and rock. The horses were not touched, and the teamster jumped in time to save himself. A force of men dug out the wagon, and as it was a RUSHFORD, with National Tubular Steel Axle, it was not injured. The "Rushford" is beyond contradiction the best wagon made.

PILE ON THE MOUNTAINS!

The King of Wagons Can Stand It!

Farmers, if you would be Happy and Contented, buy a "RUSHFORD" Wagon, with either Steel Skeins, Old Reliable Concord Steel Axles, or with National Tubular Steel Self-Oiling Axles, which are Stronger and One-Third Easier of Draught than any other.

These Axles have recently been adopted by the U.S. Government after a most severe and thorough test.

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BUILD YOUR

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CORRUGATED IRON.

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The best Mineral Springs on the Pacific Coast. Cures all cases of Kidney Complaint, Malaria, Dyspepsia and Nervous Troubles. St. Vitus Dance cured in from two to three weeks. All Skin Diseases cured in a short time. There is hardly a village on the coast but can show some one who has been benefited here after all other means have failed.

THE CLIMATE IS PERFECT FOR A HEALTH RESORT, and the surroundings are such that all can find amusement. Trout Streams and Game near the Hotel. Rink, Bowling Alley, Croquet Grounds, and good Music for Dancing for those who come for pleasure.

A NEW HOTEL OF FIFTY ROOMS,

With large shady verandas and other comforts.

We are determined that this place shall be second to none, and we can provide accommodations to suit all, from the best to the cheapest. Cottages for Housekeeping furnished with the following articles only, viz.: Stove and utensils, Table, Chairs and Bedsteads.

ROUTES—They can be reached via Hopland, S. F. & N. P. C. R. W., from San Francisco, Fare \$8.00, arriving next day at noon, or S. P. R. R. via Sites, Fare \$9.00, through same day, arriving at 10:30 P. M.

MINERAL BATHS—HOT, COLD AND SHOWER.

N. B.—Ship articles, such as bedding, etc., by freight, several days ahead, addressed to yourself, Bartlett Springs, via Williams. Store, Express, Post and Telegraph Offices, Stable, Meat Market and Barber Shop on the grounds.

L. E. McMAHAN & SONS, Props.

G. W. YOUNT, Manager.

JEFFERSON COLONY,

Situated ten miles northeast of FRESNO, in the fertile DRY CREEK BASIN, joining the well-known THERMAL BELT of the Sierras. Free from early and late frosts and hot and cold winds. No trace of alkali. At the junction of the MOUNTAIN and OAKDALE RAILROADS. A Water-right in the Enterprise Canal deeded with each lot. Finest RAISIN, FRUIT and ALFALFA lands for sale in TWENTY-ACRE LOTS. Price \$30 per acre; one-third cash, balance in one, two and three years. Also, a large list of City and Country property.

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NOBEL'S EXPLOSIVE GELATINE,
NOBEL'S GELATINE-DYNAMITE,
Best and Strongest Explosives in the World.

As other makers IMITATE our Giant Powder, so do they Judson, by Manufacturing a second-grade, inferior to Judson.

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JUDSON POWDER,

The Only Reliable and Efficient Powder
For Stump and Bank Blasting. From 5 to 20
pounds blows any Stump, Tree or Root clear
out of ground at less cost than grubbing.
Railroaders and Farmers use no other.

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ROCHESTER, N. Y.,

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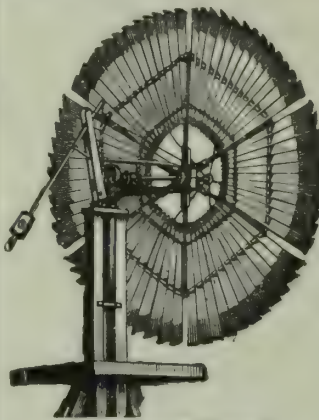
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NURSERYMEN, SEEDSMEN AND FLORISTS.

Designs Furnished and Estimates Given.

IT WILL PAY YOU TO CORRESPOND WITH US, and Learn
Our Prices and See Quality of Work.



Althouse Vaneless Windmill.

Althouse Windmill.

Its chief points of merit are: Its ability to take care of itself in the severest gale—being so arranged that no increase of wind increases its speed. The material used in its construction and the quality of workmanship being the best, the simplicity of its machinery making it almost impossible to get out of order, therefore, when once erected no further expense is attached to it.

We also manufacture all kinds of
Cistern, Well and Force
PUMPS,

Adapted for every kind of requirement for both hand and power use. Railroad Pumps, Steamboat Pumps, Mine Pumps, Windmill Pumps, Rotary Pumps, Fire Engines, Hydraulic Rams, Hoses, Garden Tools and Pump Materials. WINE and SPRAY PUMPS a specialty.

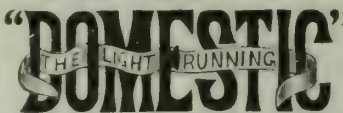


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Send for No. 16 Catalogue. Mailed Free on Application.

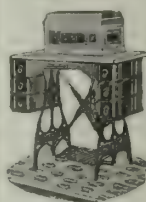
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Before Buying a Sewing Machine.

It is the leader in practical progress. Send for price list
J. W. EVANS, 29 Post St., S. F.



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Sent by mail or express anywhere. Box of 50, \$1.25; of 100, \$2.00; of 200, \$3.50; of 400, \$6.00; preparatory pills, \$2.00.

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Orders for everything in the Music Line promptly attended to.

FRUIT MARKETING.

The Golden Gate Association.

A meeting of the Board of Directors of the Golden Gate Fruit Association was held in the office of C. W. Reed, in Sacramento, June 8th, President A. T. Hatch in the chair.

The Executive Board of Managers was instructed to require all fruits shipped to localities where the association auction-houses are situated to be offered for sale at these points.

W. A. Perry of Sacramento was appointed dispatcher for the association. C. W. Reed was unanimously elected vice-president. W. S. Kendall was elected secretary.

H. A. Thomas, Manager of the California Fruit Transportation Company of Chicago, addressed the meeting relative to the refrigerator service offered by the company to shippers. He thought it would prove profitable for the association to adopt the system. Mr. Hatch said that he had packed up a box of ripe peaches last year and sent them to Chicago by the refrigerator car, and that upon the arrival of the fruit in the East it was in perfect condition. Fruit that was fully ripe was shipped to Chicago, kept there a week in a cooling-house, sent by express to New York, and finally shipped to Glasgow, Scotland, where it was sold in market. Mr. Hatch received eight cents per pound for peaches shipped to Chicago by the refrigerator line, while similar fruit sent in open cars brought but four cents per pound.

Eastern agents were designated as follows: Chicago, Earl Fruit Co.; New York, E. L. Goodsell; Boston, Snow & Co.

The appointments for various other points will be made by the board of managers within a few days.

The first car to be shipped through the association went forward June 8th. It was a load of cherries from Haywards. Regular shipments will follow almost daily from now on.

Special trains will begin running about July 1st, as heretofore announced, and in the meantime shipments will go forward by passenger train.

Growers wishing to ship to the East less than carload lots, may do so by consigning their shipments by local freight to the Golden Gate Fruit Association, Sacramento, and the consignments will be loaded into cars and go forward promptly at carload rates.—Condensed from Sacramento papers of June 8th and 9th.

Organization of Haywards Growers.

The Journal gives accounts of the preliminary organization of the fruit growers of Haywards and vicinity for the purpose of co-operative action in the marketing of fruits. The project seemed to meet with general favor, and the following committee on permanent organization was appointed to form a joint-stock company under the laws of the State: I. B. Parsons, R. Hickmott, Wm. Knox, H. W. Meek, Geo. W. Gordon, Thos. B. Russell, F. H. Garcia, San Leandro; A. Rogers, San Leandro.

Milo Knox, who went East as the agent of the Haywards cherry-shippers, has returned from Chicago, and the Journal gives the following sketch of his experience and observation: He went as far as Chicago, the leading point for California fruits, and reached his destination about fifteen hours ahead of our carload of cherries. He watched its unloading and sale by the auction plan, which resembled a scene in the San Francisco stock board. The buyers were very eager to secure the fruit. For the first experiment it proved more than a success, for the reason that our growers found out just what mistakes to correct, and in conversation with the leading buyers for California fruits, Milo at once realized the importance of our fruit men forming an organization here, so that our fruit could be shipped and packed by one management, so as to be uniform. This fact was impressed on his mind by all the big buyers, who said they could dispose of all the fruit sent them, but unless there was an organization to deal direct with, so that they could depend on a regular arrival of fruit, it would be of course a great drawback to them. Now as to the prices secured. The fruit shipped from this section East, this season, averaged from \$1.45 to \$2 per box of 10 pounds, while at home the price has been very discouraging to our fruit-growers. The striking contrast in prices is easily shown at a glance. A ten-pound box of cherries, clear of all charges East, will average \$1 to \$1.25, or ten and twelve cents a pound. This is fully double what is paid at home. For Royal Anns the price will go much higher. What surprised Milo most was the explosion of the old theory, that cherries must be picked a trifle green. In the first carload lot was a number of boxes, picked ripe, that brought top prices, while the fruit picked green brought a much lower price. The cherries must be full size and, if packed properly, will bring a handsome price.

Vacaville Fruit Notes.

EDITORS PRESS:—About 2½ carloads of fruit and vegetables leave Vacaville daily for San Francisco. There are two fruit companies in Vacaville. The Vacaville Fruit Co. is composed of nine members. Their principal object is to ship their own fruit and to furnish their own members and others with boxes, trays and other articles used in the fruit business. J. M. Petingale is manager. The Fruit-Growers' As-

sociation of 13 members is for the purpose of shipping green and dried fruit, also selling boxes, trays, baskets, paper, nails, etc., used in the fruit business. A. Moger is manager. This latter company has shipped the past week eight cars of fruit East, and from one to three tons daily by express to Oregon and points east of the mountains.

They are now employing 25 hands and paying the highest market price for fruit.

Early fruit sold in Vacaville this season to parties to ship East: Cherries, \$4 to \$1.25 per 10-pound box; apricots, 2½ cents per pound; peaches, 3 cents per pound, and plums, 4 cents. If these prices would continue through the season, most of us would soon be rich. G.

Vacaville, June 9, 1889.

The Fruit Union.

Shipments by the California Fruit Union are now going forward freely. On the evening of June 9th five cars of fruit were dispatched to the East, one each from Winters, Vacaville, San Jose, Sacramento and Newcastle. The shipments were made up of apricots, peaches, plums and cherries. Sales of fruit by auction in Chicago are reported by telegraph, as may be learned from our market review.

Santa Ysabel—A New Health Resort.

The Rancho Santa Ysabel, situated in the central portion of the Salinas valley, Monterey county, has long been noted as a most delightful and health-restoring locality. But it is only quite recently, and especially since the railroad has been constructed through it, that any special attention has been drawn toward it. Some three years since a movement was made to establish in this valley a summer resort similar to that at Pacific Grove. The particular locality selected was a beautiful canyon near the railroad in which are several valuable medicinal springs, which have been utilized as such ever since the days of the Aztecs, as is shown by ancient relics, earthworks, etc. This canyon is surrounded on all sides by rolling hills covered in the spring with luxuriant vegetation, and at all times with sweet-scented shrubbery and scattering timber.

Adjoining these springs a town site has been laid out, with roads and avenues which wind around and to the tops of the hills, which it is expected will soon be lined with beautiful country residences, the occupants of which will be attracted thither by the beautiful outlooks and health-giving atmosphere of this charming locality.

The need of such a gathering place at a distance from the seacoast where the sea breezes may be tempered by warm hills and balmy plains is generally admitted. It is impossible to give anything like an adequate description of this charming locality in print. To be fully appreciated it must be seen. The plan is to found an inland pleasure and health resort, under semi-religious influence, such as will admit to its precincts none but the most desirable class of residents. The deeds to land will exclude forever from the premises the manufacture and sale of intoxicating drinks. In a word, the idea is to make it a place where families can go and be unmolested by any annoyance whatever.

The initial sale of residence lots was made on Thursday last by Briggs, Ferguson & Co. of 314 California street of this city. An excursion party which filled a train of seven Pullman cars went down on Wednesday night. A hotel car was included in the train and every reasonable arrangement was made for the pleasure and comfort of the excursionists. Carriages were provided by means of which all who chose to do so were taken over the ground and the opportunity given to take a view of some of the finest outlooks to be met with even in this wonderful land of magnificent scenery and natural landscape pictures. An elegant collation was also provided free to all.

A large number of residence lots and a considerable amount of acreage in lots from two or three acres upward were sold. The locality is most admirably fitted for the purpose, and will no doubt soon become a most popular place of summer resort. Persons who have not purchased and who desire to inquire into the advantages of the locality are referred to the above firm.

HOME-MADE BALE ROPE.—Those engaged in baling hay should look for the statement in our advertising columns concerning the comparative service of one coil of Eastern rope with one coil of Californian. The California gentlemen who have made the test are well-known, practical men. Tabb's Cordage Co., the manufacturer of the superior rope, is an old established concern and has earned an excellent reputation by its constant effort to win fame by meriting it.

A FIRE AT FRESNO on the morning of the 8th consumed a large portion of Simon Heury's livery-stable, with six of the horses, R. Hayes' blacksmith shop, and the outbuildings of the Southern Pacific hotel. Loss about \$10,000, fully covered by insurance. The origin of the fire is supposed to be incendiary.

JUDGE SPENCER gave judgment in favor of the Los Gatos Fruit Co. in its suit against W. N. Rodgers et al., for \$8521.73, as the contract price of two shipments of canned fruit to Liverpool in 1883.

California Products at Chicago.

CHICAGO, June 12.—California Green Fruits—Cherries are scarce; not enough are offered to make a market. Peaches are rather quiet and sell at \$1.75 @2 for 20-lb boxes. Apricots have a moderate sale at \$2 @2.25, but plums are dull and lower at \$1 @1.25 for 20-lb boxes.

California Dried Fruits—There is not much stock in this line of goods left for sale, and the market in consequence rules quiet. At the same time, what little stock there is left rules firm as follows:

Apricots—Evaporated, bleached, bxs, 9@12c; 1b; do, sun-dried, according to quality, 6@8c; do, in sacks, 6@8c. Peaches—Evaporated, bleached, unpeeled, boxes, 9@10c; 1b; do, sks, 8½@9½c; do, sun-dried, unpeeled, sks, 5@5½c; do, peeled, bxs, choice, 11@13c; just fair, 9@10c; sks, 9@12c. Nectarines—White, evaporated, bleached, bxs, 7@8c; 1b; do, sun-dried, sks, 6@7c; do, red, evaporated, bleached, bxs, 6c; do, sun-dried, sks, 4@5c. Plums—New, pitted, sacks, 5½@6½c; 1b. Prunes, according to size, in sks and dry, 7@10c; 1b; damp, 3@4c; Silver, 10@12½c; Hungarian, sks, 3@5c.

Raisins—Loose Muscatels, new, ½ box, \$1.40 @1.68; do, London layers, new, \$1.65 @2.25.

Oranges—Steady and firm, owing to small supply. Market firm for choice stock; quotable: California—Riverside, ½ box, \$1.25 @1.45; undressed sizes, \$3 @4; San Michael, paper rind, \$5; San Gabriel, \$2 @3; Duarte, \$3 @3.50; Los Angeles, \$2.25 @3.

Beans remain firm; fair demand continues; offerings small; prices a shade higher with quotations as below: Lima beans, California, 5¼@6c; 1b.

Hops—The demand is fair and market firm, with only small supply. Prices range as follows: Choice Washington Territory and Oregon, 24@25c; 1b; Pacific Coast, prime to choice, 19@22c.

Change in Management.

At the annual meeting of the stockholders of the Bull & Grant Farm Implement Company an entire change was made in the management of the company.

Mr. Charles Montgomery was elected president, and Mr. T. A. Lauder general manager. From his long experience with Studebaker Bros., and subsequent management of the Grangers' store at Sacramento, Mr. Lauder is in every way qualified to take the position of manager.

That the change of management was a wise step is evidenced by the large amount of goods daily shipped by this company and prosperous condition generally of their business. They carry only the best agricultural implements and buggies to be obtained.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

\$3,250,000

TO LOAN ON MORTGAGE ON RANCHES AND CITY real estate below market rates. HOWE & KIMBALL, 508 California St., S. F.

Cheap Money for Farmers!

\$550,000 TO LOAN ON RANCHES ON MORTGAGE; large sums below market rates. S. D. HOVEY, 318 Pine street, San Francisco.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific States.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

404,167.—CARRIAGE JACK—E. F. Curtis, Sacramento, Cal.

404,167.—CARRIAGE JACK—E. F. Curtis, Sacramento, Cal.

403,928.—HAND-BAG—F. Emeric, S. F.

404,305.—MICROMETER GAGE—J. Richards, S. F.

404,080.—LOCK—H. C. Frost, Farmington, Cal.

403,999.—GRAVITY CLOCK ESCAPEMENT—F. Gundorff, Portland, Ogn.

404,200.—TENSILE STRAIN-TESTING MACHINE—Samuel Loomis, S. F.

404,202.—VALVE—Samuel N. Knight, Sutter Creek, Cal.

404,326.—NUT LOCK—C. O. Vinyard, Navajo Springs, A. T.

NOTE.—Copies of U. S. and Foreign Patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates and in the shortest possible time.

Veterinary Surgeons.

W. H. Carpenter & Son, well and favorably known as veterinary surgeons, have lately built a fine Infirmary at 331 Golden Gate avenue. The main building is 55x137 feet, with box stalls and all modern improvements. They are graduates of the Ontario Veterinary College, and are provided with Tiffany's operating-table, which is considered absolutely safe for casting a horse. The growing interest in breeding fine stock would seem to warrant the large amount of money invested in this well-appointed Infirmary.

WANTED.

Young man of steady habits desires situation as Stenographer and Typewriter. Good references furnished. Address F. W. C., 39 E. Cayuga St., Oswego, N. Y.

SELF-PLAYING ORGAN.

An Automatic Organ Combined with an Ordinary Five-Octave Organ.

NO TEACHER OR PRACTICE NECESSARY. ANYBODY CAN PLAY the latest and most difficult music of every class. Every home should have one. Send for descriptive circulars, prices and terms to

KOHLER & CHASE, 137 & 139 Post St., Dealers in all kinds of Musical Goods.

DECKER BROTHERS' PIANOS. KOHLER & CHASE, Agents, 137 POST STREET, S. F.

"ROCK-A-BYE DOLLY."

A Beautiful New Song.

Words and Music by F. C. CARNES.

Mailed free to any address on application to

CHAS. E. NAYLOR,

725 Market Street,

History Building,

San Francisco, Cal.

Also send for a beautiful

LITHOGRAPHED BANNER,

A fine set of Chromo Cards, etc., all free with the compliments of

THE NEW HOME SEWING MACHINE COMPANY, 725 Market Street, History Building, San Francisco.



Breeders' Directory.

Lines or less in this Directory at 50c per line per month.

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PERCHERON HORSES Refer to large advertisement. Address, Capt. W. B. Collier, Lakeport, Cal.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

P. PETERSEN, Sites, Colusa Co., importer & breeder of registered Shorthorn Cattle. Young bulls for sale.

JOHN DETER, Colusa, Cal. Almost saddle and driving horses for sale. Single footers. Two fine Stallions.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

H. P. MOHR, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

H. S. SARGENT, Stockton, importer and breeder of registered Jersey Cattle. Correspondence solicited.

HENRY HAMILTON, Grayson, Cal., breeder of Kentucky Jacks and Jennies, Draft Horses and Holstein Cattle. Jacks, Horses and Mules for sale.

DENMAN & MCNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

EL ROBLAR RANCHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. R. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton,) Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Shorthorns & Herefords, Wildflower Farm, Fresno or Sacto.

COTATE RANCH BREEDING FARM, Page's Station, S. F. & N. P. R. P. O., Penn's Grove, Sonoma Co., Cal. Wilfred Page, Manager. Breeders of Short Horn Cattle, English Draft Horses, Spanish Merino Sheep and Berkshire Swine.

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First dam Abess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcon, a son of Virginian. Second dam by Marshal Ney; he by Imp Emancipation. Third dam by Bretrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbridge, 2:28.

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Full Brother to SPARTAN, 2:24.

Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Albion, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son of Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Rydyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Ramboult, 2:14; Albion by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorne, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:03, and Jay Eye See, 2:10.

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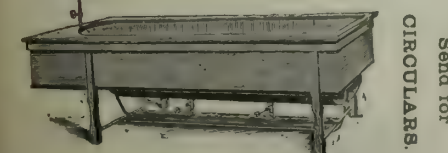
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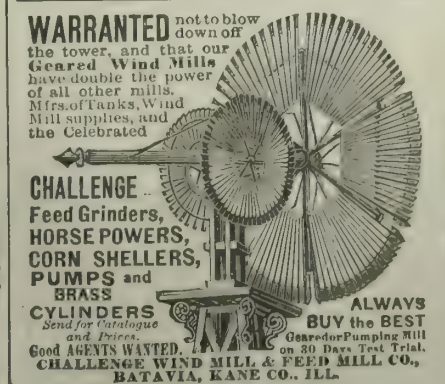
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DOMESTIC PRODUCE, ETC

SAN FRANCISCO, June 12, 1889.
The past week has been uneventful, and therefore partakes more or less of the character of the preceding week. Harvesting is becoming more general in the favored localities. As a rule, the outturn is better than estimated. The wheat market, both at home and abroad, has held fairly strong throughout the week, necessitating buyers paying more money. The following is to-day's cablegram:

LIVERPOOL, June 12.—Wheat—Weaker. California spot lots, 65 6d @ 65 9d; off coast, 33s 3d @ 33s 6d; just shipped, 33s 6d; nearly due, 33s 6d; cargoes off coast, not many bids in market; on passage, quiet but firm; wheat on passage to continent, 302-000 qrs. wheat and flour on passage to U. K., 1-581,000 qrs.; English country markets, steady; French, quiet; wheat in Paris, quiet; flour, quiet; weather in England, fair after rain.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	June.	July.	Aug.	Sept.	Oct.	Nov.
Thursday.....	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2
Friday.....	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2
Saturday.....	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2
Monday.....	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2
Tuesday.....	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2	65 1/2

The following are the prices for California wheat for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	33 3/4	33 3/4	33 3/4	Quiet.
Friday.....	33 3/4	33 3/4	33 3/4	Quiet.
Saturday.....	33 3/4	33 3/4	33 3/4	Quiet.
Monday.....	33 3/4	33 3/4	33 3/4	Quiet.
Tuesday.....	33 3/4	33 3/4	33 3/4	Firm.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

	June.	July.	Aug.	Sept.	Oct.
Thursday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2
Friday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2
Saturday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2
Monday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2
Tuesday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

	June.	July.	Aug.	Sept.
Thursday.....	75 1/2	75 1/2	75 1/2	75 1/2
Friday.....	75 1/2	75 1/2	75 1/2	75 1/2
Saturday.....	75 1/2	75 1/2	75 1/2	75 1/2
Monday.....	75 1/2	75 1/2	75 1/2	75 1/2
Tuesday.....	75 1/2	75 1/2	75 1/2	75 1/2

NEW YORK, June 12.—Wheat—81 1/2 @ 81 c for cash, 81 c for July, 81 1/2 c for August and 82 1/2 c for September.

The Nation's Cereal Crops.

WASHINGTON, June 10.—The June returns of the Department of Agriculture show a light increase in winter wheat. The area in seed will be possibly a million acres more than the last crop, largely from Kansas and California. The seeded and harvested area in Kansas this year will be nearly identical, and a large breadth in California which is cut for hay in years of low yield will in part be harvested for grain this season. The condition of winter wheat still remains comparatively high, though it has fallen three points during the month, and averages 93 for the country. The following State averages are given: New York 96, Pennsylvania 94, Texas 88, Kentucky 86, Ohio 88, Michigan 90, Illinois 92, Missouri 98, Kansas 98, California 98. The area of spring wheat has apparently increased about 3 per cent. Preliminary estimates show a loss of 3 per cent in Wisconsin and 1 in Minnesota, and a gain of 1 in Iowa, 3 in Nebraska and 7 in Dakota, with an increase in the northern region. An increase of 2 to 3 per cent in the area of oats is reported, while the condition is seven points below the normal standing. Barley is about the same as last year, and its average condition is 95. Rye has made no perceptible advance in area, and its general average condition is 95.

California Fruits East.

NEW YORK, June 7.—The first carload of California fruit of the season was auctioned by the California Fruit Union this morning. The prices obtained were: W. R. Strong & Co.,—9 ten-pound boxes Madeline pears at 65 cts.; 37 boxes Alexander peaches, \$2.05; 92 crates Royal apricots, \$2.65; 85 crates Royal apricots, \$2.95; 91 crates Royal apricots, \$2.60. I. W. & F. M. Buck—129 boxes Alexander peaches, \$2.05; 86 crates Royal apricots, \$2.15; 77 crates Royal apricots, \$2.15. F. M. Buck—111 boxes Alexander peaches, \$2.05; 13 crates Royal apricots, \$2.90; 1 crate apricots and plums, \$2.40; 4 crates red plums, \$2.70. Frank B. McKevitt—3 boxes Alexander peaches, \$2; 1 crate Royal apricots, \$2.15. F. V. Buck—11 boxes Briggs May peaches, \$2.10. W. R. Strong & Co.,—100 crates red plums at \$1.30 and \$1.35.

CHICAGO, June 7.—The agents of the California Fruit Union sold by auction to-day a carload of apricots, peaches and plums. Apricots sold at from \$2.10 to \$1.50; peaches, \$2.35 to \$2.30; plums, 75 cents. The demand was fair.

CHICAGO, June 10.—The agents of the California Fruit Union sold three carloads of fruit to-day as follows: Peaches, \$1.35 @ 1.80; apricots, \$1.40 @ 1.80; plums, 70c @ 80c; cherries, 90c @ 1.50. The cherries were in bad condition and peaches fair.

CHICAGO, June 11.—The agents of the California Fruit Union sold one carload of fruit to-day as follows: Peaches, \$1.80 @ 1.85; apricots, \$1.30 @ 1.70; plums, \$1.10. The demand was only fair.

NEW YORK, June 12.—Very little California fruit was auctioned at Brown & Seccomb's salesrooms to-day, owing to the non-arrival of fruit cars. An O. and C. car, No. 1020, containing 666 half-crates Royal apricots from the Fruit-Growers' Association of Vacaville, sold at prices ranging from \$1.10 @ 1.60 each; 137 ditto from O. E. H. Garlich, brought \$1.30 @ 1.35 each; 26 ditto from J. W. Gates, brought \$1.55; 43 ditto from Robinson Bros. sold at \$1.35; four half-crates red plums from O. E. H. Garlich sold at \$1.80.

CHICAGO, June 12.—Porter Bros. Co. sold to-day, through the Adams & Lewis Auction Co. two

carloads of peaches, apricots and plums. The peaches sold at \$1.85 to \$1.75, apricots at \$1.45 to \$1.15, and plums at \$1.25 to \$1.20. The market is weak.

Dried Fruits

NEW YORK, June 9.—A leading dealer in California dried fruits says that the demand for California prunes is greater than ever before. Dealers must have a good stock, though much inferior stock is placed and is injuring the trade. The East will take up all the prunes California can supply at good figures, but producers must be more careful in the goods that are boxed for this market. Speaking of raisins, a dealer also said that New York would soon look to California for its supply. The Eastern market is strong, steady and not over-stocked. There would be an unlimited demand if prices could be made a little lower, as they are now too great a luxury.

Hops.

CHICAGO, June 8.—Hops are firm. When present supplies are exhausted it will be difficult to replace goods, for the quantity in first hands is very small. In view of this, holders are firm in their views. There is a fair demand, and sales appear to be fully as large as is desired under the circumstances. Reports from Eastern hop-yards state that the vines have made good progress, but have been somewhat nipped by frost. It is also alleged that an early season frequently means the visitation of destructive insects. And while no unfavorable predictions are made, the feeling seems to be none too good, and many growers are indisposed to part with their holdings until the crop is more confidently assured. Brewers have got little stocks in advance of requirements. Prospects for trade are, though warmer weather is necessary to move the market activity. Prices are: Choice Washington Territory and Oregon, 24 @ 25c lb.; Pacific Coast, prime to choice, 19 @ 22c.

Eastern Wool Markets.

NEW YORK, June 9.—Business in wool for the week represents forced wants too much to express a test. The market is strong. Home prices to a great extent subside the buying interest at the seaboard, but there seems to be no yielding inclination at most intermediate Western points. Texas wool may be said to be picked up fast at home rates. It is thought that Lower California clips are quite cleaned up. Sales here include 75,000 California spring on private terms; 142 spring Texas, 18 @ 22c; 25 NX, 34c; 15 fine delaine, 36 @ 36 1/2c; 20 fine medium Territory, 21c; 10 Australian, 37 @ 39c; 180 domestic, 9c; foreign, 700 bales, most of the latter to arrive, on private terms.

Boston reports a good inquiry for domestic wool from manufacturers who are in need of stock. New wool on arriving sells freely and there are no accumulations in any grade. In fine washed fleeces there is a moderate business owing to small stocks on hand. Prices of all kinds of wool are very firm.

The Philadelphia market is reported firm, with an improved demand noted.

Miscellaneous.

NEW YORK, June 9.—Lima beans are about used up at \$3.25.

Mustard seed is extremely dull at 2 1/2 @ 2 3/4c, yellow.

Choice loose raisins are scarce and firm. Layers are too plenty for the season.

Prunes are wanted, but must be upper sizes.

New-crop honey is quoted at 6 1/2c, but is regarded as high.

Beeswax is scarce, ranging from 28c to 32c for State.

There is a favorable movement in hops. Good State under grades for brewers' use participate liberally in this week's advance. Pacifics are very firm. Best export State, 23 @ 24c; common to prime, 18 @ 22 1/2c; best coast, 21c; common to prime, 15 to 20c; all old, 4 @ 10c. Exports for the week, 1094 bales.

Hides continue quiet. Sales of 5000 California dry on private terms, nominally 15c. Others also unchanged.

Local Markets.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday.....	69 1/2	69 1/2	74 1/2
Friday.....	69 1/2	69 1/2	74 1/2
Saturday.....	69 1/2	69 1/2	74 1/2
Monday.....	69 1/2	69 1/2	74 1/2
Tuesday.....	69 1/2	69 1/2	74 1/2

	S. S.	B. S.	B. S.	S. S.	B. S.
Thursday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2
Friday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2
Saturday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2
Monday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2
Tuesday.....	131 1/2	131 1/2	131 1/2	131 1/2	131 1/2

—New.

Local Markets.

BAGS.—All temporary wants having been met, buyers bid lower, with Calcuttas selling at from 8 to 8 1/2c. Large holders still maintain that values will go higher. This opinion is based on the impression that a large proportion of farmers have not bought yet. Time only will prove if this is correct.

BARLEY.—The sample market shows considerable strength, owing to a vessel loading for New York, with a report current that present low prices will induce more shipments. In futures, trading has been fairly active. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—200 tons, 78 1/2c lb. cwt. Afternoon Session: Seller 1889, new—100 tons, 70 1/2c lb. cwt.

BUTTER.—The market is in a demoralized condition. A sale of a round parcel of choice, not fancy brands, was made to-day at 15 1/2c. Choice creamery in rolls, brought here in refrigerator cars, was offered at 13 1/2c a pound. Of course until cool weather sets in Western creamery will not keep long, yet it goes to show the competition we may have this winter. Immediately following the Seattle fire heavy shipments were made there, but they are now light.

CHEESE.—The market is stronger with an advancing tendency. Receipts are light and demand good.

EGGS.—Receipts are light. Fresh laid are in

good request at full figures. Other kinds are reported firmer.

FLOUR.—The market is weak at quotations. The demand is good.

WHEAT.—The market is stronger with sellers in different. For new milling \$1.30 is bid, without finding a seller. The large number of ships loading make the market stronger than it otherwise would be. In futures, dealings on Call have been more active with nice little fluctuations reported. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—100 tons, \$1.32 1/2; 200, \$1.32 1/2 lb. cwt. Afternoon Session: Buyer 1889—500 tons, \$1.32 1/2; 600, \$1.32 1/2; 1000, \$1.32 1/2. Seller 1889, new—100 tons, \$1.24 1/2. Buyer 1889, after August 1st—200 tons, \$1.32; 200, \$1.31 1/2; 100, \$1.31 1/2 lb. cwt.

Market Information.

Produce Receipts.

Receipts of produce at this port the week ending June 11th, were as follows:

Flour, qr. sks.....	136,814	Middlings, sks.....	4,908
Wheat, cts.....	89,920	Alfalfa, ".....	—
Barley, ".....	19,186	Chicory, bbls.....	32
Rye, ".....	1,274	Broomcorn, bbls.....	—
Oats, ".....	19,134	Hops, bbls.....	—
Corn, ".....	5,749	Wool, ".....	4,474
Butter, ".....	957	Hay, tons.....	2,862
do bxs.....	1,802	Straw, ".....	140
Cheese, cts.....	760	Wine, gals.....	427,970
do bxs.....	94	Brandy, ".....	4,100
Eggs, doz.....	91,630	Raisins, bxs.....	101
Beans, cts.....	7,396	Honey, cs.....	40
Potatoes, sks.....	27,948	Walnuts, sks.....	—
Onions, ".....	3,626	Flaxseed, sks.....	113
Bran, sks.....	9,326	Mustard, sks.....	—
Buckwheat, sks.....	—	—	—

The Stock of Grain.

The directors of the San Francisco Produce Exchange have submitted the following report of the stocks of flour and leading cereals of the crop of 1888, remaining in the State of California June 1, 1889, and a comparative statement of previous years.

	1888	1887	1886	1885	1884	1883	1882	1881	1880
Flour, barrels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Wheat, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Barley, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Oats, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Rye, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Buckwheat, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000

	1888	1887	1886	1885	1884	1883	1882	1881	1880
Flour, barrels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Wheat, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Barley, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Oats, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Rye, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000
Buckwheat, bushels.....	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000	1,715,000

—New.

Cereals.

In their Melbourne circular of May 1, 1889, the New Zealand Loan and Mercantile Agency Co. says: "Splendid rains have fallen throughout the colony since our last monthly report, and the genial weather which followed has enabled farmers to push on with their plowing and seeding. The early-sown crops in the northern districts are already beginning to make considerable progress, and although frosts are mentioned, still the warm days and moist condition of the soil tend to make vegetation rapid. Altogether the outlook, both in Victoria and the adjoining colonies, is most satisfactory, while the rainfall in South Australia is almost unprecedented, and this will thoroughly saturate the subsoil, an event which has not occurred for many years. In Victoria a fair proportion of new land will this season be brought under crop, but to compensate for the increase the area of land in fallow will probably not be larger than last year."

Crop returns are still of a conflicting, unsatisfactory character. The general tenor goes far in confirming the estimated yield heretofore made by this paper. It is not at all unlikely that a fairly definite idea of the outturn can be formed previous to the first of next month. The cool weather is favorable to maturing grain. The barley outturn is better in many localities than heretofore claimed, while now, so far as can be ascertained, it falls below last estimates. The rye and buckwheat outturn proves to be better than looked for. The corn crop prospects are reported to be of the most encouraging character.

In the local market wheat has shown a strong tone, with more buyers than sellers. There is a

good inquiry for choice old for shipment to both Australasia and Rio de Janeiro, while English export buyers are in the market for good to choice shipping. Buyers for the European markets bid \$1.27 1/2 @ 1.28 1/4, while buyers for the other markets have paid an advance, going as high as \$1.30, and in one or two instances even more. For new wheat, exporters bid \$1.25 July delivery for No. 1 white shipping.

By referring to the stock of grain in the State on hand on June 1st, it will be seen that the amount of all kinds is less than on hand one month later in 1888. With one month to draw on, the old stocks on the first of next month will be largely below those held on July 1, 1888.

The barley sample market the past week has exhibited a firmer, stronger tone, but with no higher quotations given. At present low prices, there are many who have confidence in the cereal as an investment. The consumption will be very large, particularly on the farms and in cities, owing to more teams put into service. As yet, the consumption by contractors on the new railways under construction is quite large.

Oats continue in buyers' favor, although a steadier tone begins to set in. Advances from the crops up North are of the most flattering character.

In buckwheat and rye, there is nothing new to report.

Corn continues steady at unchanged prices.

Feedstuff.

In ground feed, there is an increasing consumption, which naturally offsets any increase in the supply. There is a prevailing opinion that while bran and middlings may go lower, ground barley will probably stiffen rather than weaken.

New hay is coming to hand more freely. As yet the quality is not of the best. Buyers continue to give old the preference, although choice is hard to get. Several large contracts for new have been made, the particulars of which it is difficult to obtain. Those who have bought the more freely are dairymen.

Fruit.

Cherries are strengthening under lighter receipts. Canners are still buying. So far the quality of the cherries was better than last year, although the bulk were poor keepers. Apricots are weak and under free receipts. Canners are paying from 1 1/2 to 2 cents a pound to orchardists. Peaches are coming in more freely, with prices receding. The quality is poor to fair, very few good coming in. Pears still make a poor showing. Apples are coming in more freely, but as yet meet with an indifferent demand.

In berries the market for all kinds has a wide range, due to the poor keeping quality of much of the stuff put on the market. Choice, well-selected good keepers find quick buyers at extreme prices, while poor keepers are hard to place even at low prices. Canners are buying strawberries and currants. The berry crop this year is turning out large.

In dried fruits there is nothing new to report. Holders are cleaning up ready for new. The stock in the market is reported to be light. Raisins are firmly held, with a very light stock on hand.

In canned fruits there is nothing new to report. The high cost of sugar is against packers. The stock of last year's pack is being worked off.

Live-Stock.

Under liberal selling offers and a lessened consumption, the market for bullocks and mutton sheep is weak. At this season of the year the consumption is always light, owing to the abundance of fruits and garden truck. Hogs are in fair request for the block, but for packing they are weak, in sympathy with the low prices ruling for cured meats. In milch cows and horses there is nothing new to report.

The market for dressed cattle is quoted as follows: to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent.

HOGS.—On foot, grain fed, 5 1/2

THE LESSONS OF THE ROCKS.—The geological history of the world develops strange facts. Geological history, says Archibald Beikie, brings before us many facts well calculated to impress our minds with the great antiquity of our planet, and with the marvelous changes by which the present order of things has been brought about. We learn from it that the mountains and valleys have not come suddenly into existence, as we now see them, but have been formed gradually by a long series of processes similar to those which are now slowly doing the same kind of work. We discover that every part of the land under our feet can yield up its story, if we only know how to question it. And strangest of all, we find that the races of plants and animals which now tenant land and sea are not the first or original races, but that they were preceded by others and these again by others still more remote. We see that there has been upon the earth a history of living things as well as of dead matter. At the beginning of this wonderful history we detect traces of merely lowly forms. At the end we are brought face to face with man, thinking, working, restless man, battling steadily with the powers of nature, overcoming them one by one by learning how to obey the laws which direct them.

SAND DRIFTS.—The ocean beach back of San Francisco is not the only place in the world where drifting sands impede the progress of improvements. Dry, loose sand, wherever it occurs, is constantly being shifted by the wind, and often buries cultivated lands, buildings and forests. On the shores of Lake Michigan are drifts 100 feet deep, and those of Cornwall reach 300 feet in depth, while the drifts of the Gobi desert are 40 miles long and 900 feet high in places. On the shores of the Bay of Biscay the drifting sand travels inland 16 feet a year; in parts of Denmark, 24 feet; and in southern India, 17 yards. In some places walls and barriers of vegetation have been created to stop the destroying drifts. Fine sand is taken up to a great height in the air and deposited many miles away. In 1882 Iceland was visited by a remarkable sand-storm lasting two weeks, which hid the sun and objects a few yards off like a dense fog, and caused the death of thousands of sheep and horses.

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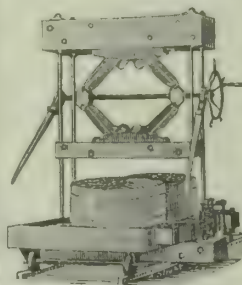
Authorized Capital.....\$1,000,000
Capital paid up in gold coin..... 624,160
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Using two baskets so that while one is under the press the other can be emptied and filled ready to move under the press as soon as the first basket is pressed. First Premium awarded at all fairs wherever exhibited. Parties desiring a press combining Power, Speed and Ease to Handle, can see them at the wineries of the following Parties who have purchased and are using them at their wineries: Arpad Haraszthy & Co., San Francisco; Prof. Hilgard, University of California, Berkeley; J. B. J. Portal, San Jose; L. De Turk, Santa Rosa; Paul O. Burns, Wine Co., San Jose; Geo. West, Stockton; Kate F. Warfield, Glen Ellen; Joseph Drummond, Glen Ellen; Lay Clark & Co., Santa Rosa; J. & F. Muller, Windsor; R. C. Stiller, Guberville; Vache Freres, Old San Bernardino; J. F. Crank, San Gabriel; Wm. Allen, San Gabriel; Wm. Metzger, Santa Rosa; J. Lawrence Watson, Glen Ellen; Walter Phillips, Santa Rosa; Ely T. Sheppard, Glen Ellen; Wm. Pfeiffer, Guberville; Joseph Walker, Windsor; Ranchito Fruit & Wine Co., Ranchito; Downey Fruit & Wine Co., Downey; Wm. Palmtag, Hollister; A. Burnham & Sons, Bennetts Valley; E. E. Meyer, Wrights; Hill & Marshall, Petaluma; C. Weller, Warm Springs; Seward Cole, Colerogrove; Chas. J. Dunn, Healdsburg; Glen Terry Wine Co., Clayton; H. L. Gordon, San Jose; Mrs. A. C. Furness, Calistoga; B. W. Hallebeck, Santa Clara; Thos. Buckingham, Kelseyville; Buckner Bros & Regna, Santa Rosa; C. P. Howes, San Francisco; Cucamonga Vineyard Co., Cucamonga; J. C. Mazal, Pano; Dr. W. W. Hays, Nordhoff; Wm. Maitland, Boulder Creek; Macdonald, Glenwood; D. M. Delmas, Mount View; Wm. Bibler, Lakeview; J. L. Beard, Centerville; M. Bollotti, Sonoma; John Hinkelman, Fulton; R. J. Northam, Anaheim; J. Auerias, San Jose; G. C. P. Sears, Sonoma; J. D. Williams, Cupertino; James Finlayson, Healdsburg; P. & J. J. Gobbi, Healdsburg. Also Worth's Improved Grape Elevators, Improved Continuous Pressure Hydraulic Presses, Worth's Patent Power Grape Stemmer and Crusher, Worth's Patent Horse-Power and all kinds of machinery for wine-makers. The Large Toggle Lever and Screw Press is capable of a pressure of 266 tons or 300 pounds to the square inch, the small press has 38 tons or 240 pounds to the square inch.

W. H. WORTH,
Petaluma Foundry & Machine Works,
P. O. Box 288. Petaluma, Sonoma Co., Cal.

C. H. EVANS & CO.

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MACHINE WORKS,

Steam Pumps, Steam Engines
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The Celebrated L. C. Smith Gun
Represented by above cut.

\$70 Grade reduced to.....\$45
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Send 5c stamps for large Catalogue of Guns and Hunters' and Anglers' Goods.

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P. & B. IDEAL ROOFING

HAS NO EQUAL

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—FOR—

Cheapness and Durability.

WILL LAST FOR YEARS.

Cannot be Torn. Anybody can put it on.

No Coal Tar. No Odor.

SPECIALLY ADAPTED

FOR

Cattlemen, Ranchmen and Settlers.



PARAFFINE PAINT CO.,
310 California St., San Francisco.

MERY'S IMPROVED PIONEER BARLEY CRUSHER

Using the Benoit Corrugated Rollers.

STILL AT THE FRONT.



This Mill has been in use on this Coast for 8 years.

TAKEN THE PREMIUM AT THE STATE FAIR

Four years in succession, and has met with general favor, there now being

Over 250 of them in use in California, Nevada & Oregon.

It is the most economical and durable Feed-Mill in use. I am sole manufacturer of the Corrugated Roller Mill. The Mills are all ready to mount on wagons.

DURHAM, May 21, 1887.

Mr. M. L. Mery—Dear Sir: In reply to yours of the 19th, would say that I crushed from two to two and a half tons per hour, but could crush three and a half tons per hour if my elevators were large enough to carry the barley from the machine. The No. 1 machine I used at Gridley was run on a sack a minute, but if we got behind we could run through five tons an hour, and do good work. The machine I use here is a No. 2.

Yours, WM. M. TAYLOR.

I thank the public for their kind patronage received thus far, and hope for a continuance of the same.

M. L. MERY, Chico Iron Works, Chico, Cal.

GRANLAND, BUTTE CO., CAL., June 9, 1887.

Mr. M. L. Mery—Dear Sir: We have used one No. 2 Roller Barley Crusher now for eight years and have used it steadily during that time; have crushed 45 tons a day and the Crusher is as good to-day as when it came out of your shop. I am satisfied that it is the best mill made. You may reconstruct this testimonial to the best advantage for you and sign our names, for you cannot overrate the merits of your mill.

F. E. REAM,

JOHN P. SUTTON.

NEVADA WAREHOUSE & DOCK COMPANY,

Warehouse and Docks, PORT COSTA, CAL. Office, 412 PINE ST., San Francisco.

STORAGE CAPACITY, 100,000 TONS.

These Warehouses are the largest on the Pacific Coast, and are furnished with the latest improvements for the rapid handling and storage of Grain. A Mill attached, supplied with the best and newest machinery for cleaning foul and smutty wheat.

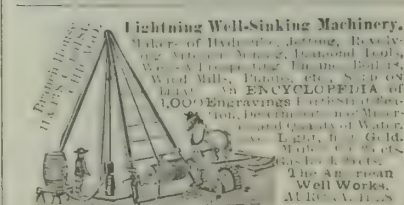
Storage of Grain per Season not to exceed	\$1 00 per Ton.
Storage of Grain per Month	25 "
Grading Wheat	50 "
Cleaning Wheat	75 "
Smutting Wheat	1 00 "

Weighing into Warehouse, Free.

OPTION AND STORAGE LOTS DELIVERED IN FULL.

W. F. BERRY, Secretary.

JOHN ROSENFELD, President.



WELL DRILLS
for all purposes.
Send 20cts. for mailing catalogues with full particulars.
CARPENTER ST. AND CARROLL AVE.

THE DOG In health, habits and disease. All breeds and treatment; 50 cuts; 25c. This office.

Galvanized Hexagonal Netting.
Silver Finish Brand.

FOR POULTRY & Rabbit-Proof Fencing
Cattle AND Division Fences.

BOTTOM PRICES
By the BALE and in CAR-LOAD LOTS.

Send for ILLUSTRATED CIRCULAR and PRICE LIST to

GEO. B. BAYLEY,
210 & 212 Davis St., SAN FRANCISCO.

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Seeds, Plants, Etc.

FOR PLANTING IN 1889 AND 1890.

150,000 French Prunes on Myro-bolan Plum Roots.

100,000 BARTLETT PEAR TREES.

Large Stock of Apple, Peach, Apricot and Almond.

Having a large stock to bud, will take orders to supply any kind of Apple, Pear, Peach, Apricot, Almond and Cherry, in dormant or June Buds or one year old trees.

JAS. T. BOGUE,
Marysville, Cal.

RIVERSIDE NURSERIES AND FRUIT FARM.
LODI, CAL.

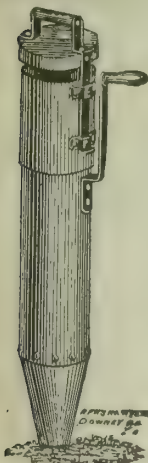
Jas. A. Anderson, - - - Manager.

APRIL 1, 1889.

I have now growing 500,000 Seedling Almonds, Peach, Plum, Pear, etc., started from choicest natural seeds, and am prepared to take orders to June Bud for fall and winter delivery. Fruit Trees of all kinds, including J. X. L., Nonpareil and Ne Plus Ultra Almonds, French Prunes, Prune d'Ente and Japan Plums, Royal Blenheim and Newcastle Early Apricots, leading varieties of choice Peaches. Bartlett Pears, Cherries, etc.

Varieties guaranteed as represented.
My nursery lands are new and produce fine growth in body and fibrous roots, to which my patrons all attest. For particulars and prices, address

JAS. A. ANDERSON,
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BROWNE'S SQUIRREL AND GOPHER SMOKER.

This is an apparatus for
Burning Straw and
Sulphur

And forcing the Smoke and Gases
down their holes, which kills them.
Does away with poisoned wheat
and all other dangerous methods.

Every one guaranteed or
money refunded.

Price, \$3.00

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SCREENS



Manufacturers of all kinds
of Perforated Metal, Lip
and Lip Hook Screens,
round and slotted, or any
other kind desired for clean-
ing and separating grain.
Farmers will please take
notice that the metal screens do not clog or choke up as do
the old wire screens heretofore in use. Also manufacturers
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Perforating Screen Co., 45 & 147 BEALE ST., S. F.

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Stationary Engines and Boilers,
Portable Straw-Burning Boilers & Engines.
IRON AND BRASS CASTINGS.
Machinery of all kinds furnished at shortest notice.

Heald's Patent Wine-making Machinery,
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Wine Presses and Pumps, and all appliances used in
Wine Cellars. Irrigating and Drainage Pumps. Heald's
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Insurance Company,
216 Sansome St., San Francisco.

Organized in 1864.
Losses Paid Since Organization.....\$2,841,045 00
Assets, January 1, 1889.....843,163 70
Capital, Paid up in Gold.....300,000 00
NET SURPLUS, over everything.....287,531 34

RUPTURE AND PILES.
We positively cure all kinds of Rupture
and Rectal Diseases, no matter of how long
standing, in from 30 to 60 days, without
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TENTION FROM BUSINESS. Terms: No Cure,
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Established 1853.

ADRIATIC and SAN PEDRO FIGS.

French Walnuts, Home-grown Oranges and Rooted Grapevines.

Illustrated Catalogue and Price List for the season of 1887-88 free to all sending for them. All Trees, Vines,
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A full line of Fruit and Ornamental Trees, Shrubs, Vines and Hothouse Plants.

E. O. CLOWES, Proprietor
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INCORPORATED 1884.

460 ACRES.

ORANGE SEED! ORANGE SEED!

From Fresh, Ripe Tahiti Oranges.

We have just received, per schooner Ivy, a cargo of Fine Ripe Tahiti Oranges and desire to call the attention of
Nurserymen and all who use this Seed to this opportunity to procure it, as this is the only seed fit to plant, as it is
the only kind that will germinate. It will be packed in barrels as usual. Please send in your orders early so that
we can fill them as soon as possible.

L. G. SRESOVICH & CO, 505 and 507 Sansome Street, San Francisco.

FOR THE MYSTERIOUS VINE DISEASE.

ONGERTH'S INSECTICIDE POWDER,



TRADE MARK REGISTERED.

No. 2.

This powder is the preparation specially
recommended by Hon. J. De Barth Shorb,
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to investigate the mysterious Vine Disease.
All the powder used by them in their recent
experiments was the ONGERTH INSECTI-
CIDE POWDER No. 2, of which about
20,000 pounds have been shipped to the
San Gabriel Valley.

See Official Report in Rural
Press April 27, 1889.

No preparation genuine without this
trade-mark.

Manufactured by the ONGERTH
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to whom all orders should be addressed.
Samples and prices submitted on applica-
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Liquid Tree Protector and Ongert's
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WICKSON'S ORCHARD AND VINEYARD SINGLETREE

Fruit and Vine Growers,

Here is Something that Interests
Every One of You.

Those who have purchased say they
would not be without them
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IS A SURE PREVENTION AGAINST DAMAGING TREES OR VINES, and will save its cost
every day it is in use. Used with any trace without change, or by adding a little supplementary trace we turn sh.
Price of Singletree only 75 cts.; Sup. Leathers, 50 cts. per pair; with full set Traces, \$5.

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S. W. Corner Kearny and Montgomery Avenue, San Francisco.

Free Coach to and from the House.

J. W. BECKER, Proprietor.

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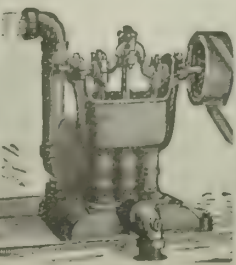
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FRUIT and PACKING BOXES,

Grape and Berry Baskets,

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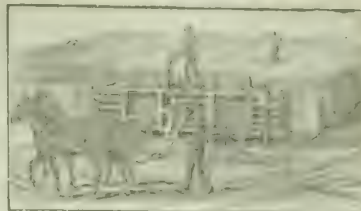
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IRRIGATING PUMPS,

Horse Powers,
Windmills, Tanks
and all kinds of Pump-
ing Machinery built to
order. Windmills from
\$85. Horse Powers from
\$50. Send for Catalogue
and Price List.
F. W. KROGH &
CO., 51 Beale St.
San Francisco.

HAY PRESSES!



THE HURRICANE—Size A.

A. HURRICANE, best model of hay press, Size of bale,
when in the press, 17x24x46 inches. Average weight of
bale, 220 pounds. Capacity, from 16 to 25 tons per day.
Uses 4 men and works with 1 horse. Uses rope or wire.
Tramplings. Puts from 7 to 8 tons in a box car.

Price.....\$1000.

THE HURRICANE—Size B.

Size of bale in press, 22x24x46 inches. Average weight
of bale, 220 pounds. Capacity, from 16 to 25 tons per
day. Uses 4 men and works with 1 horse. Uses rope or
wire. Tramplings. Puts from 7 to 8 tons in a box car.

Price.....\$1000.



THE SELF-TRAMPING JUNIOR MONARCH

Size of bale in press, 22x24x46 inches. Average weight
of bale, 220 pounds. Capacity, from 16 to 25 tons per
day. Uses 3 or 4 men, at option of baler. Works with
1 or 2 horses. Uses rope or wire. DORN ITS OWN TRAMP-
ING. Puts from 7 to 8 tons in a box car.

Price.....\$500.

THE MONARCH.

Same principle as Junior Monarch, but smaller and
heavier. Size of bale, when in press, 17x24x46 inches.
Average weight of bale, 220 pounds. Capacity, from 12
to 20 tons per day. Requires 3 men and 2 horses. Uses
wire only. rope will not hold. DORN ITS OWN TRAMPING.
Puts 10 tons or over in a box car.

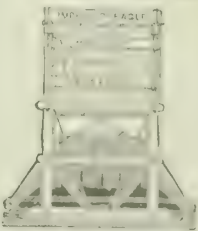
Price.....\$600.



THE GENUINE PRICE PETALUMA.

Size of bale in press, 24x24x50 inches. Average weight
of bale, 250 pounds. Capacity, from 10 to 18 tons per
day. Requires 4 men and 2 horses. Uses rope or wire.
Hay must be tramped into the press. Puts from 5 to
6 1/2 tons in a box car.

Price.....\$350.



THE IMPROVED EAGLE.

Size of bale in press, 26x26x50 inches. Average weight
of bale, 235 pounds. Capacity, from 10 to 15 tons per
day. Requires 4 men and 2 horses. Uses rope or wire.
Hay must be tramped into the press. Puts from 4 1/2 to 5 1/2
tons in a box car.

Price.....\$250.

The above is the finest line of Baling Presses in the
United States. They are nearly double the capacity of
those of other makers.

For large, illustrated Catalogue of the same, ad-
dress the

PRICE HAY PRESS CO.,
San Leandro, Cal.

BEST TREE WASH.

"Greenbank" 98 degrees POWDERED CAUS-
TIC SODA (tests 20 to 30 per cent) recommended by
the highest authorities in the State. Also Common
Caustic Soda and Potash, etc., for sale by

T. W. JACKSON & CO.,

Manufacturers' Agents,
104 Market St. and 8 California St., S. F.

MISSION ROCK DOCK

GRAIN WAREHOUSE,
SAN FRANCISCO, CAL.

75,000 TONS CAPACITY. 75,000
Storage at Lowest Rates.

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BORN VOLUMES. Back idea of this paper bound in
substantial cloth binding with leather back, covering
six months' numbers in each, indexed, can be had at this
office at \$4 per volume.

625-631 Sixth Street,
SAN FRANCISCO.

BYRON JACKSON

149-169 Bluxome St.
SAN FRANCISCO.

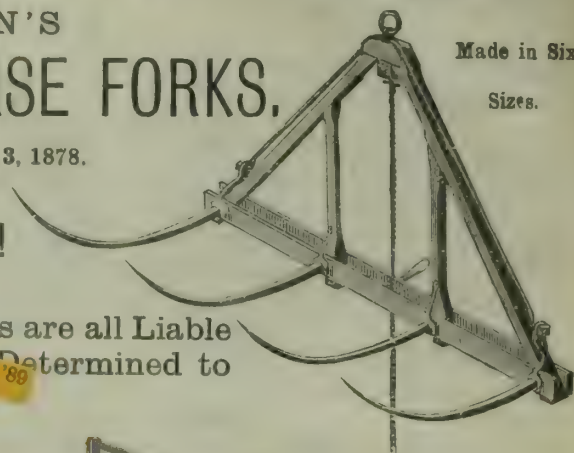
JACKSON'S
PATENT LIGHT WEIGHT HORSE FORKS.

Patented Nov. 13, 1877, Dec. 3, 1878.

Beware of Infringements!

Makers, Sellers and Users are all Liable
under the Law, and Determined to
Protect my Rights.

Made in Six
Sizes.

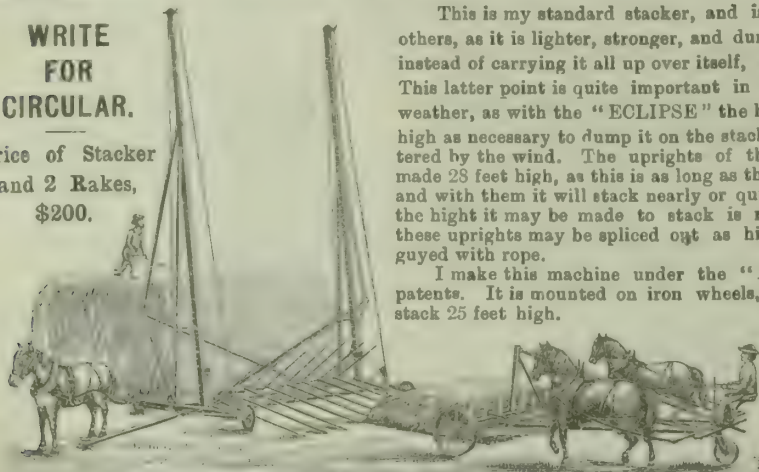


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comprising Foundry, Pattern, Machine, Woodworking and Blacksmith Shops, fitted with the latest improved machinery and tools, corner of Sixth and Bluxome streets, San Francisco. Visitors welcome.

**WRITE
FOR
CIRCULAR.**

Price of Stacker
and 2 Rakes,
\$200.



This is my standard stacker, and is, I think, an improvement on all others, as it is lighter, stronger, and dumps the hay at any desired height, instead of carrying it all up over itself, without regard to height of stack. This latter point is quite important in stacking in windy weather, as with the "ECLIPSE" the hay is only raised as high as necessary to dump it on the stack, and is not scattered by the wind. The uprights of the "ECLIPSE" are made 28 feet high, as this is as long as they can be shipped, and with them it will stack nearly or quite that height, but the height it may be made to stack is really unlimited, as these uprights may be spliced out as high as desired, and guyed with rope.

I make this machine under the "Acme" and Oliver patents. It is mounted on iron wheels, and will build a stack 25 feet high.



Jackson's Improved "Acme" Rake and Buck Combined.

Weight, 650 lbs. Price, \$50.

The above illustrates my latest-improved Rake. In it are embodied all the improvements that my long experience with them in the field has suggested. They are first-class in design and construction.

They are mounted on 34-inch patent iron wheels, with 4-inch tires, and have the improved patent ratchet device, which enables the driver to EASILY RAISE THE HEAVIEST LOAD without leaving the very comfortable spring seat in which he rides. The swing fence automatically discharges the load when the team backs.

It does the work of all other Hay or Horse Rakes, viz., wire rakes, sulky rakes, revolving rakes, buck rakes and "go-devils." It rakes from the swath, and leaves the hay in large bunches at once, requiring no hand-work. One man and two horses will keep up with two mowers, following the mower as soon as the hay is wilted enough to be raked clean with any rake. IT RAKES CLEANER. The hay will cure quicker without bleaching by dew or sun. Very large bunches can be made by pushing two or more rakefuls into one.

JACKSON'S IMPROVED "ECLIPSE" STACKER AND LOADER,

And "Acme" Rakes and Bucks, Combined,

— MADE BY —

BYRON JACKSON, 625 Sixth St., San Francisco.

The Ertel VICTOR Automatic Folder.

The Strongest, Fastest and Easiest Operating Baler Ever Made.

Patented February 16, 1886, September 28, 1886, and May 10, 1887, by 44 Patented Claims of all New and Original Designs

1889



1889

Guaranteed to Bale Hay or Straw Cheaper Than any Other.
Full Weight to the Car. So Warranted or no Sale.

18x22 Variable Length, Price \$425.

DOUBLE-ACTING PERPETUAL HAY AND STRAW PRESS.

A MACHINE IMITATED BUT NOT EQUALED

In Symmetry, Simplicity, Durability, Ease of Management, Effectiveness of Power, Fast and Neat Baling. Needs but to be Seen to be Appreciated, and while the Machine is only Claimed to Bale 10 to 15 tons per day's work, yet many parties using the Victor are baling over two tons per hour.

FOR REFERENCE WE NAME YOU A FEW OF THE MANY PARTIES USING IT:

MR. N. MATHEWS, of Los Angeles, says his men have hauled with a Victor as many as 37 bales per hour (good weight).
CUNNINGHAM BROTHERS, of Glendora, say they have baled 4800 pounds of hay per hour.

MR. FRANK JOHNSON, Banning, says he is baling six tons per three hours.
MR. JAMES P. BURDICK, of Santa Ana, says the Victor is the only machine baling hay successfully.

FOR SALE BY

SAN FRANCISCO:
Junction Market, Pine and
Davis Streets.

BAKER & HAMILTON.

SACRAMENTO:
Nos. 9, 11, 13, and 15
J Street.

PACIFIC RURAL PRESS

TWENTY-PAGE EDITION.

Vol. XXXVII.—No. 25.

SAN FRANCISCO, SATURDAY, JUNE 22, 1889.

\$3 a Year, in Advance.
SINGLE COPIES, 10 CENTS.

Scenes on a Stock Ranch.

We have had many scenes on California fruit ranches, many glimpses of beautiful natural scenery, but a set of views on a leading stock ranch is acceptable as hinting at another important branch of California industry and affording other features of the California landscape than the rugged phases which delight the tourist and recreation-seeker. The scenes presented pertain to the establishment of one of our so-called cattle kings, Wm. Dunphy, who has earned such distinction by his long career and wide interest in the industry of horn and hoof. We are indebted for the materials of the display on this page to one of Harrison's Series of Pacific Coast pamphlets, which treats especially of Monterey county.

La Posa rancho is the characteristic name of Mr. Dunphy's establishment. It is located on the west side of the Salinas river, and commencing at a point about 13 miles south of Soledad. The original Spanish grant covers the entire valley between the river and the coast mountains, for a distance of nine miles in length, and from one to four miles in width, and comprises some 9000 acres. Besides this there are a number of small farms and claims purchased from settlers in the foothills adjoining, making a total of about 12,000 acres. Nearly the whole of this land is rich alluvial soil, and capable of producing abundant grain crops. The entire tract is inclosed by a substantial fence and subdivided into fields and pastures to suit the needs of the herds that formerly grazed thereon. The valley lands are level, yet sufficiently sloping from the foot of the mountains to insure good drainage. The entire area—with the exception of a small portion called the *Monte*, and lying some 30 feet below the general level of the valley—was formerly a solid mass of bunch-grass, clover and alfalfa. The clover and alfalfa covered the space between the roots of the bunch-grass, and in springtime the entire mass was from two to three feet high. Later in the season the grasses cured, and all save the bunch-grass fell to the ground, where it all remained, sweet and wonderfully nutritious, until long after the winter rains began and the new growth took the place of the old. In this way the feed was always abundant, and of the best quality. But stock-raising has been superseded by grain-raising, and other farming, for this year Mr.

Dunphy has converted his magnificent stock ranch into a farm of mixed cultures, with every assurance that the yield will justify the change.

There are still, and will be, many animals

ranch is a picture of beauty. The coast mountains, with their bordering of foothills, which form the western boundary, rise to an altitude of several thousand feet.

The engravings are illustrative of our better

The Circus.

We notice that the circus again is abroad in the land, gathering coin from those who can ill afford to part with it, sweeping away hundreds and thousands of dollars from single communities and leaving nothing—yes, worse than nothing for the corruption of the mind. The ribaldry and moral laxity which too often prevails among circus crews cannot be publicly exhibited without more or less injury to the morals of any community.

We delight in amusement and recreation, and believe our people have far too little of it; but the circus does not afford the entertainment which can be commended. There are plenty of agencies which can be praised, and they would often be sought were it not that the blare and deviltry of the circus finds enough original sin in the human mind to induce patronage which exhausts funds that could be otherwise better used. If the circus comes into your neighborhood, think twice before squandering money upon it. Show the young folks how much more and better fun can be had for the same money otherwise expended. How much better, for example, some good, entertaining book or elegant periodical which will afford for years constant entertainment or delight, or some excursion to the vicinity of charming natural scenery, than an hour in the reeking atmosphere and immoral contagion of the circus tent. Think about this and make it the subject of conversation in the home circle.

EXPERIMENT STATION IN SOUTHERN CALIFORNIA.—A telegram from Pomona, Los Angeles county, announces that efforts are being made by citizens to secure the location of a university agricultural experimental station at that point. Several men have guaranteed to make subscriptions for buildings, and the Pomona Land and Water Company has agreed to give 25 acres of land, with water, for the station. Prof. Hilgard has always calculated to extend this work to Southern California as

soon as funds would warrant, and we have no doubt he will be glad to accomplish the result as soon as practicable.

ANOTHER BENCH SHOW.—The California Kennel Club talks of holding a dog show in this city next October.



A TYPICAL CALIFORNIA VALLEY FARM—LA POSA RANCHO IN MONTEREY COUNTY.

on La Posa rancho, as the ranch is finely stocked with cattle, besides horses and mules, the cattle being of excellent grade—many thoroughbred—and the horses all well bred, and thus the common beef animal gives place to his more illustrious relatives. Besides its great value from the standpoint of usefulness, th

class of valley farms and their improvements. Fig. 1 shows the buildings pertaining to the residence and the adjacent hay-fields. Fig. 2 gives a nearer view of ranch buildings with a herd of cattle coming to water, and Fig. 3 is a broad valley view with bands of cattle and horses enjoying the rich pasturage.

CORRESPONDENCE.

Correspondents are held responsible for their opinions.

California Farmers and the Peace Question.

THE RURAL PRESS.—The prosperity of Californian agriculture is pre-eminently dependent on the preservation of the world's peace. The consumption of our surplus products by export alone maintains our markets at remunerative prices. Even now our ever-increasing production demands wider and wider avenues of trade. Only by expanding commercial relations can our progressive farmers, vine-dressers and orchardists favorably consummate their ventures. It is needful, then, to realize that to secure and expand commerce we must secure peace.

Every step in this direction should receive eager welcome at our hands. Every proposed or projected step should be strongly forwarded and loudly applauded. On this account it is a pleasant duty to be able to inform your readers of a great European awakening to the need of an international policy worthy of our century. This is how the President of the London Chamber of Commerce lately put it:

The excessive burden imposed upon the people of Europe by their gigantic military armaments was becoming so serious as to be almost intolerable, and would render any competition with America, the British Colonies, and other less highly taxed communities more and more difficult. Arbitration had been successfully adopted in some cases, even though a special tribunal had had to be created for each case—a course to which there were manifest drawbacks. He could not but think that the time had come when statesmen should consider the advisability of establishing a permanent international court of arbitration to which any disputes might be submitted. This would, at any rate, give time and opportunity for reflection and obviate the fear of sudden attack.

In harmony with this enlightened view is the declaration of President Carnot at the inauguration of that "Festival of International Fraternity," the Paris Exposition. "These imposing festivals of labor," said he, "enable nations to meet and understand each other, and should give birth to those feelings of sympathy and esteem which cannot fail to exercise a happy influence over the destinies of the world by hastening the day when the resources of nations and the products of their labors shall be consecrated alone to the works of peace."

That some definite progress shall result, two Peace Congresses have been organized in connection with this exhibition. The first will convene June 23d at the Trocadero.

The program was formulated at a meeting held at the residence of M. Ch. Lemonnier, the president of the International League of Peace and Liberty; Mr. Hodgson Pratt, the president of the International Arbitration and Peace Association, presiding. Among those who took part in the proceedings were Messrs. F. Passy, Ch. Lemonnier, H. Pratt, E. Chénaut, H. Destrem, Conturier, Gaston Marin, Gieben, Mesdames Greiss-Trant, Taxily and Tournant.

1. Consideration of international arbitration under all the forms and in all the applications to which the principles may be adapted.
2. Permanent treaties of arbitration between two or several peoples.
3. Application of the principle of neutralization to rivers, canals, straits, Territories, nations, etc.
4. International applications of the principle of federation.
5. The creation, by the initiative of peace societies, of Colleges of Arbiters.
6. The introduction in universities, colleges and schools, of courses of theoretical and practical arbitration.
7. Reforms to be effected in international law.
8. The fundamental principles of an international code.
9. Generally: Study, examination and discussion of the means and measures which may progressively substitute between nations the juridic state for that of war or truce, and finally render disarmament possible.

Then comes an International Congress of Parliamentary or Congressional deputies, convened by a joint committee of French and British members of their respective Legislatures to meet June 29th and 30th. Senator John Sherman is one of the American delegation.

Last on the list, but to us by no means least, is the Congress of North and South American States invited to meet at Washington next October. Its deliberations will cover a wide field. The program includes not only the arbitration question, but a general family discussion on such matters as a uniform standard of coinage, etc., a regulation of customs duties on some intelligible common-sense basis, and the reciprocal furtherance of commerce.

This looks a little like the abandonment of red tape and the commencement of such a policy as commends itself to the sensible Granger. We want the American hog to go forth into all the world; we want our wine, our wheat and our wool to have free course and be appreciated in all lands; we want our fish and our fruits to fill the hungry Britisher, and our green peas and asparagus tips to tickle the Parisian epicure's palate. So Californians will be glad to give Mr. Morris M. Estee their enthusiastic support when he goes East next October to join Mr. Andrew Carnegie and the rest of the U. S. Commissioners in their friendly international deliberations. Let us hope that the commission may so successfully labor that the public moneys now being lavished on ironclads and fortifica-

tions will be the last so wasted; and that all future appropriations will be for our much-needed internal improvements, harbors, roads, bridges, irrigation works, and objects of like permanent utility.

Carmel Valley.

EDWARD BERWICK.

Vacaville Letter.

EDITORS PRESS:—Haying is about over, and people who are not already busy shipping fruit are wondering what they will do with it. The fruit business is as uncertain as courting a widow. Three months ago it was thought apricots would be scarce, and but few if any could have been bought for less than four cents per pound. Now, a few early crops have been sold at 2½ cents, and the ones who sold are said to have done well in selling.

The Fruit Crop

Is turning out small in Pleasant valley—in some instances scarcely enough to pay expenses of raising. What it will be in Vaca valley we cannot yet tell; it will depend somewhat on the price of dried fruit. The prospect now is that the larger part of the 'oots will be dried.

Help is plenty, with lots of loose men and families who want to camp out and out fruit, but cannot get a job. About all who have made calculation on drying their whole crop have for some time had their cutters engaged. Tramps who want work and something to eat, with the something to eat first, are more numerous than usual. A few days since four of them stopped at a place where no one was at home, and went through the house. Being pressed for time, they took two clocks and some other things, but were caught soon afterward. A man has taken the contract to

Poison the Squirrels

On several hundred acres of hills on the west side of Vaca valley, for which he is to receive ten cents per acre. There are not many squirrels here, but a few in an orchard soon do considerable damage. The squirrels were poisoned on a large tract of land in Vaca valley about nine years ago, at I think 50 cents per acre. For several years afterward scarcely a squirrel could be seen on the tract.

The worms and bugs have about all left us, except the grape-hoppers and the leaf lice; the latter are plenty on the prune and plum trees. The flies are worse on horses and nearly drive them crazy. If any one knows of a wash with which we could spray the horses to keep off the flies, it would be a great relief to the poor animals.

Quite an exciting election was held in Vacaville last week, at which a lady was chosen school trustee.

Vacaville, June 9, 1889

THE FIELD.

Danger Signals.

To supplement the warnings lately given as to the small beginnings of costly conflagrations, we print the following extracts from late exchanges:

On Thursday about 1 o'clock a piece of barley belonging to C. E. Sperry, near Keyes Switch, caught fire, and before it could be extinguished 12 acres had been burned over. The fire started from the carelessness of the section hands, who were burning "fox-tail" along the track, in leaving smoldering embers while they went to dinner. The barley burned was of heavy growth and fine quality, but not thoroughly dry, which appeared to be all that prevented a large field fire.

Last Saturday 30 acres of wheat owned by Frank Graves, and situated near Pennington, were burned. The fire originated through the carelessness of a sheep herder on the place.

A stack of grain on the ranch of J. B. Hockett, near Porterville, was destroyed by fire on Sunday last. The grain had just been harvested, and it is supposed some of the hands must have dropped matches near the stack, which were ignited by the rays of the sun.

As John Zumalt was returning from Visalia a few days ago, he found a fire starting up in the vicinity of Tagus, having been ignited by a spark from a passing locomotive. He shouted to one or two men a short distance away, and a section crew coming up soon after, by their combined efforts the fire was soon extinguished.

While the north wind was blowing Friday morning a spark from the blacksmith-shop on the J. C. Bail ranch set fire to dry grass around the shop and soon spread over about an acre. Fortunately there were men about the shop at the time, and the fast-spreading flames, after a short, sharp action, were put out. A narrow stripsome eight feet wide marks the distance between the burnt district and thousands of acres of tall ripe grain.

E. Browning of Maxwell expresses grave apprehension in regard to fires along the railroad track. Vegetation is drying rapidly, and already there have been six outbreaks, but so far without serious damage. Generally, fires in the neighborhood of railway lines are credited to the defective smokestacks, but Mr. Browning claims that a more prolific source of danger is to be found among the cigarette-smokers, who carelessly throw the lighted stubs from the car windows.

One hundred acres of barley has been de-

stroyed by fire on the fields of Thompson O'Brien on Roberts Island. The fire started on the peaty soil where it has been smoldering since the stubble was burnt off last fall.

H. C. N. spilt some boiled oil on the floor. Thinking to clean it up, he scattered some sawdust upon it. After the oil had soaked in, the sawdust was raked up in a pile and left to be removed later. Wednesday about noon the odor of something burning was noticed. The inmates of the store could not account for the odor. Along in the afternoon W. H. N. conceived that it might arise from spontaneous combustion, from the association of the oil with the sawdust in the oil-room. Placing his finger in the pile, he found it, as he expressed it, "red hot." The mass was heaved into the street, when it broke into a strong flame.

On all the above cases "comment is unnecessary;" readers can point the moral for themselves.

THE IRRIGATOR.

Native Plants as Indicating Character of Land.

The last issue of the *Arizona Enterprise* has the following interesting statements:

In response to a memorial of the Fifteenth Legislative Assembly of Arizona, addressed to the Secretary of the Interior relative to the classification of sacaton lands, Commissioner Stockslager submitted specimens of sacaton to J. W. Powell, Director of the Geological Survey, for his opinion of its character, value as forage, and the nature of the land producing it.

Mr. Powell's statement in relation thereto is as follows:

"The plant sent for examination is *Sporobolus Wrightii*, and is locally in Arizona and New Mexico called 'sucro' and sometimes 'sacaton.' The thick, tough roots are manufactured into scrubbing-brushes, and the seeds are sometimes used by the Indians for food. For pasturage purposes it has no value, as the stalks are not sufficiently succulent. The plant is characteristic of the arid or desert lands of Arizona and New Mexico. It grows about the margins of springs and along banks of small streams and under other conditions which require a more detailed statement.

"In the arid lands of the United States, the rainfall is concentrated on the mountains, and there is very little rain in the valleys and on the plains. For this reason the streams have their sources in the mountains. When they reach the valleys or plains below, most of them sink away in the sands. Such streams, therefore, cannot preserve channels in the lowlands; but where the waters are lost for any season this plant springs up. If the season is very dry, the stream is lost immediately at the foot of the mountains. In such a season the 'sucro' will grow up at that point. Another season the rainfall will be greater and the water will flow down farther by a mile or two miles, or 10 or 15 miles, as the case may be; and wherever the stream ends for that particular season, the 'sucro' will spring up. In the same manner, if the caving in of a bank dams it temporarily, the flooded land will bear a crop of the 'sucro.'

"For such reasons as I have given, and for many others which could be set forth, all of the arid or desert lands of the Southwest which are most valuable for irrigation are marked now and then and here and there by patches or patches of the 'sucro,' and it is considered to be one of the best guides in the proper selection of lands for irrigation.

"It may therefore be said that wherever this *Sporobolus Wrightii* is found throughout Arizona, New Mexico, Utah, etc., the lands require irrigation for agricultural purposes, and crops cannot be raised on such lands without irrigation; second, that wherever this plant is found it is evidence that the lands have been wisely selected; and third, that the plant itself is not valuable for agricultural or pasturage purposes."

This report virtually disposes of the question, and the entries under the desert-land law, held for cancellation on the report of Special Agent Slater that the existence of sacaton classed the land as agricultural, will soon be decided in favor of the settlers, as they properly should be.

Appropos of the disposition of this question and the more recent rulings of the department in the mesquite "timber" cases, the fact is made conspicuous that the settlers upon the public lands have been unreasonably annoyed and put to great expense through the inexcusable ignorance of the special agents employed for the detection of fraud. The character of the sacaton lands could have been easily determined long ago by a little inquiry or investigation, and the settlers saved the trouble and expense of a contest. The classification of mesquite brush as timber was another outrage upon the settlers arising from the same lack of intelligence, with perhaps a flavor of retaliation for the refusal of favors sought. The special agents proceeded upon the hypothesis that every settler upon public lands is an uncaught rascal, and they have acted accordingly. Their utter failure to establish their charges of fraud is sufficient condemnation of their feeble judgment, and the final determination of the fimsy pretexts set up for their action sweeps away the last grounds for useless annoyance, and the settler can now rest secure that his rights will be protected by the Government.

SHEEP AND WOOL.

Wool Facts and Figures—No. 10.

[Written for the Rural Press by J. R. F.]

Probably no branch of the wool industry of the country shows so marked an increase as the manufacture of carpets. A long and well-written article on the industry states that the first record of a carpet in the United States was a small Turkish rug, said to have been in the house of Kidd, the pirate, who was executed in 1701. In 1760 there were advertisements in New York of a few Scotch and other carpets; but prior to the Revolution carpets were very rare, and these were only in the houses of a few wealthy Dutch merchants.

The first carpet factory in this country was built at Philadelphia, Pa., by William Peter Sprague. One of the patterns wove was a national device representing the arms and achievements of the United States. In the same year (1791), United States Secretary of State Hamilton recommended that Congress encourage the industry by increasing the duty on wool carpets. Another factory was built in Philadelphia in 1801, John Dorsey, owner. In 1810, statistics show that there were manufactured only 9984 yards of carpet in the whole country, the value of which was placed at \$1 a yard.

It was not until 1827 that the industry received much of an impetus. In that year H. R. Knight & Co. established a factory in Hartford county, Connecticut. In 1828 the Thompsonville Company built a factory in the same county, which was followed soon after in the same year by the establishment of the celebrated Lowell Manufacturing Company. In 1830, Samuel Given put a carpet factory in operation at Carlisle, Pa. In 1833, three carpet factories were built in Columbia county, N. Y., and one at Rochester, N. Y. In the same year, statistics of the industry show that factories were started in New Haven and New London counties, Connecticut, Somersworth, N. H., Baltimore, Md., and Steubenville, Ohio. In 1834 there were in this country 19 factories, running 511 looms, distributed as follows: Eighteen on Brussels, 21 on treble ingrain, 44 Venetian; 4 Damask Venetian, and 424 on ingrain other than three-ply. The estimated outturn of the factories was 1,147,500 yards, valued at about \$1 a yard.

After repeated attempts, Erastus B. Bigelow of Massachusetts invented in 1838 a power-loom for the manufacture of Brussels carpets (prior to this time hand-loom were only used). This invention revolutionized the industry, although it was not until ten years later that the power-loom was perfected. The importance of this invention is readily recognized when it is stated that by its use one woman or girl can easily weave from 20 to 25 yards of carpet a day, while with the hand-loom she could not exceed four yards a day. By the latter process the cost of manufacturing had been 30 cents a yard, which was reduced by the former to about four cents a yard.

This reduction caused the price of carpets to fall about 20 per cent. When the invention was first announced it was received with incredulity, owing to the accepted belief that it was impossible to make Brussels carpets except by hand-loom. The cheapened cost of carpets created a large demand for them, so that by 1857, 5000 power-loom could not meet the demand.

The census returns of 1860 state that there were 213 carpet factories in this country, consuming annually 8,843,691 pounds of wool, turning out 13,285,921 yards of carpet, worth about 60 cents a yard. The factories gave employment to 6681 hands and had a pay-roll of \$1,545,692 a year. Although the 1870 census returns show only 215 factories in the country, yet they had a pay-roll of \$4,681,718, with 12,098 hands employed. They consumed 33,000,000 pounds of wool and turned out 22,000,000 yards of carpet, worth on an average nearly \$1 a yard. In 1880 the number of factories had fallen to 195, but the number of hands employed had increased to 20,371 and the pay-roll to \$6,835,218.

The woolen-hosiery industry in this country has made rapid strides, as the census shows. Woolen hosiery includes socks, stockings, gloves, drawers, undershirts, jackets, opera-hoods, shawls, scarfs, comforters, and other knit goods, both wool and mixed. The hosiery-mills use in their manufacture cotton, silk, flax and wool, but the latter is chiefly used. In 1850 there were only 85 hosiery-mills; capital invested, \$544,735; product, \$1,028,102. In 1860 there were 197 factories; capital invested, \$4,035,510; product, \$7,280,606. In 1870 there were 248 mills; capital, \$10,931,260; product, \$18,411,464; wool consumed, 5,600,000 pounds; and hands employed, 14,788. The 1880 returns show that the capital invested had risen to \$15,579,591, and hands employed to 28,885.

Previous to 1832 there was only one hosiery factory of any importance in the country, and that was called the Newburyport (Massachusetts) Hose Manufacturing Company. The company used hand-loom. The capacity of these looms was two pairs of looms a day, while power-loom have a capacity of 20 pairs. By the introduction of power-loom the cost of production was reduced nearly 90 per cent.

The industry received quite an impetus about the year 1838 by the invention and use of the

circular knitting machines, which make stockings without a seam. Within the past two decades several other useful inventions have been made and put into use, which have reduced very considerably the cost of production, besides turning out a better quality of goods.

In 1880 the wool-hat manufacture, and also the manufacture of woolen belt goods, were segregated in the census returns. In that year there was invested in the manufacture of woolen hats \$3,615,830, the number of hands employed 5470, and the annual product amounted to \$8,516,569. In the manufacture of felt goods there was invested in 1880, \$1,958,254, hands employed 1524, while the product amounted to \$3,619,652.

Shoddy was first used only for padding, but during the civil war was used very extensively for overcoats, army cloths, piano covers and tablecloths, etc. By shoddy is meant cast-off worsted and woolen goods, reduced by powerful machinery to its original state, to be respun and woven alone or mixed with new wool. White shoddy is used in white blankets, and dark shoddy in carpets and coarse cloths dyed to cover the original colors. In 1842 there was a small shoddy-mill at Woodstock, Vt., and in 1860 there were five small ones in New York, giving employment to 58 hands. In 1870 the shoddy-mills used about 19,372,000 pounds of raw shoddy, and in 1880 they used 52,136,926 pounds on a scoured basis, equal to about 70,000,000 pounds on an unwashed basis.

The first Angora and Cashmere goats were brought into this country in 1855, and soon after the 1860 census, mills were established at Lowell to manufacture their wool and also the wool from alpaca sheep. The returns of 1880 show that there was manufactured in this country in 1879 3,351,701 yards of alpaca woolen goods, 1,000,000 yards of alpaca worsted goods, 2,919,050 yards of cashmere, and 1,557,537 yards of cashmerettes.

The following countries in Europe admit raw wools free of duty, while levying a duty on manufactured: Austria-Hungary, Belgium, Denmark, France, Germany (the latter country has a very small duty on comb wools, but not on all other kinds), Greece, Italy, the Netherlands, Norway, Portugal, Sweden and the United Kingdom. In the Americas, Canada and Chili admit wool free of duty, while the Argentine Republic levies an export duty.

The following statistical footings I compiled from the census returns, giving the number of all kinds of woolen establishments, capital invested, hands employed, wages paid, cost of materials and value of products in the United States:

	1850.	1860.
Establishments.....	1,559	1,203
Capital.....	\$28,118,650	\$34,092,654
Hands.....	39,252	43,738
Wages.....	\$ 8,397,307	\$10,153,938
Cost of materials.....	\$25,755,991	\$39,029,062
Products.....	\$43,297,545	\$65,596,364
	1870.	1880.
Establishments.....	2,993	2,689
Capital.....	\$108,910,369	\$159,091,869
Hands.....	92,973	161,557
Wages.....	\$31,246,432	\$47,389,087
Cost of materials.....	\$110,740,799	\$164,371,557
Products.....	\$177,495,689	\$267,252,913

According to the report of the English Royal Commission, the number of persons employed in the United Kingdom in the worsted and woolen manufacture was as follows: 1856, 166,885; 1862, 173,046; 1868, 249,900; 1874, 276,702; 1885, 277,546.

The same commission reports the consumption (home-grown and imported) of raw wool (not scoured) in pounds:

	1866.	1876.	1884.
U. King'm.....	313,000,000	369,000,000	381,000,000
U. S.....	229,707,000	235,020,000	376,036,000

In scouring wools bred in the United States, there is greater loss than in that bred in England.

In commenting on the growth of the wool consumption in this country compared with that of the United Kingdom, the *United States Economist*, in one of its issues in 1886, says: "But there is something behind these figures of which no account is taken; yet this is the most important factor to be considered in the calculation. Great Britain—including Ireland—as a whole has gained nothing in population in the last 40 years; while, on the contrary, we have increased to a nation of 63 million souls from 38,925,598 in 1870."

The population, according to census returns, of the United States was as follows:

	1790.	1800.	1810.	1820.	1830.	1840.	1850.	1860.	1870.	1880.
	3,929,214	5,308,413	7,239,881	9,633,822	12,866,020	17,069,453	23,191,876	31,443,321	38,538,371	50,155,783

OREGON STRAWBERRIES.—The strawberry crop in the neighborhood of Portland, this summer, is reported to be the largest and finest ever known; but lack of a market has made it unremunerative to producers, who have not been able to get even three cents a pound. It is estimated that 20 tons of berries are rotting on the vines within a few miles of that city, and some growers will plow up their berry patches. It would seem there was an opening there for a cannery.

TWO TONS OF ORANGE SEED.—The L. A. *Express* says that Tim Carroll of Evergreen nursery, near Anaheim, has this year planted two tons of orange seed. This, no doubt, beats the world's record.

HORTICULTURE.

Forest Fruits and Flowers.

[An essay by Lorenzo G. Yates of Santa Barbara, read before the State Fruit-Growers' Convention at National City, April 18, 1889.]

I have been asked to write an article to be presented to this convention, but being neither a practical horticulturist nor a fruit-grower for profit, I doubt my ability to present anything of special interest in relation to the utilitarian side of practical or profitable horticulture; but as an amateur who takes great interest in the subject, as a pleasant recreation from the fatigue of mind and body incident to arduous professional duties and scientific pursuits, I may, perhaps, suggest some ideas which may, at least, prove of passing interest to those here assembled; albeit my attempts may be equal only to those of the late lamented author of "What I Know About Farming."

I will address this assemblage as the *F. F. F.'s* (in contradistinction to the traditional and well-known *F. F. V.'s*), for if I understand the aims and objects of this convention, it is composed of persons who are interested in and who favor and foster the preservation and extension of forests, the introduction and profitable cultivation of fruits and the growth and increase of varieties, and the improvement in the form, color, and perfume of flowers.

Our forests must be preserved and their area increased, for many and very important reasons, which were well and ably presented at the eighth meeting of this convention at Santa Rosa, in November of 1887, by Mr. Abbot Kinney, recently of the State Forestry Commission.

Among the most important reasons for the preservation of the forests are: Their economic value, their incalculable sanitary and climatic influence, and their scenic effect in clothing with their drapery of green what would otherwise appear as naked and forbidding rocks, rugged, sterile mountains and dreary, monotonous valleys.

Our native forest trees should be grown and planted out, as the selection which nature has made for us. Some of them are rare, and unless they are cared for, will soon become extinct in their native habitat.

In this connection it may be well to remember that the average Californian of the past was one whose spirit of adventure or desire for gain had brought him to the Golden State from the older settlements and countries; these adventurous spirits were imbued with a desire to obtain wealth, not by the old and steady methods of the older countries, but rapidly and without the continued exercise of the patience and economy practiced by their forefathers.

This spirit has not entirely died out; we see its manifestations in our booms, our frantic rushing to newly discovered mines, new towns and settlements, caused by the unrest of those who are not contented with doing well, but are continually watching for some opportunity to hurry matters up and do better.

This uneasy spirit, together with the further fact that the Californian of the past looked forward to the time when, having "made his pile," he could return to "the States" and settle down among his old associates, were the principal causes why so few permanent improvements were made, and why our forests were so recklessly destroyed.

Forest economy is slow in its returns and has been neglected, and the attention of the tillers of the soil turned to the cultivation of such crops as yield quick returns to enable the temporary occupants to return to the places whence they came, carrying with them the results of their labors in the mines and on the lands of their temporary stopping-places. These old time depredations are happily things of the past, and the present inhabitants of our great State realize the necessity of repairing the damage done by the careless and inconsiderate action of their predecessors, and (except that droves of sheep and cattle are allowed to pasture in our remaining forests, and the careless use of fire by individuals, cause great damage to the young growth of vegetation, leaving the surface bare to be gullied and washed out by the winter rains) our forests are being protected, and we trust to our State Board of Forestry, Board of Horticulture, State Floral Society and other similar bodies to see that our forests are protected, and to bring about the establishment of Botanic Gardens, and the introduction and cultivation of new and valuable forest and fruit trees.

Our State is remarkable for its varied soil and climate in approximate localities. One man may be the owner of real estate upon which certain trees and plants may be cultivated with satisfaction and profit, while the owner of lands adjoining may not have the conditions suited to the growth of the same products, but exactly such as are required for the growth of other and equally valuable products of the vegetable kingdom.

California needs more organized effort for the introduction and proper cultivation of plants and trees of economic value, new fruits and rare and beautiful flowers. It needs Botanic Gardens, and then we may have the material for books similar to the "Catalogue of Plants Grown in the Metropolitan Gardens of Brisbane," compiled by F. M. Bailey, F. L. S., which gives the scientific and local names, habitat, with valuable notes on their properties and uses, and their economic value.

Prof. E. W. Hilgard, in an article on

Botanical Gardens, published in 1879, called attention to the advantages, popularity and utility of the many botanical gardens established on the continent of Europe and in Great Britain and her colonies, where they are not only recognized institutions of public instruction and utility, but also as acceptable and popular resorts for the general public. He advocated the establishment of botanic gardens in various cities of California, not alone that the climate of our State is remarkably favorable for the representation of the economic plants of an unusually wide range of other climates, thus testing the adaptability of new culture plants to the several localities, but also in consideration of the instruction furnished and made available in its most attractive form.

These gardens should not be a mere grouping of such plants and trees as are ordinarily selected by the landscape gardeners as being "good" for the purpose, but where the useful and the beautiful shall be so grouped and arranged as to form a harmonious blending of the whole, and so be pleasing to the eye and attractive to the mind of every intelligent person. In this way they will form kindergartens for young and old, and afford instruction and amusement to all, from the child who is just learning to read to the old and well-informed student or traveler, to whom they will act as living reminders of far distant countries.

Private individuals are accomplishing much in the introduction of new varieties of fruits; an instance in point is that of Dr. F. S. Gould of Montecito, near Santa Barbara, who has just received from Italy 600 choice olive trees, all budded on seedling stock from two to four years old from the bud. These were a selection made to obtain the finest varieties for the production of oil; the varieties are the Cucco, Corregiole, Frantoio, Morinello, Morchiaio and Palazzuolo. Although three months in transit, the trees arrived in fine condition and were still moist at the roots, which were separately packed in straw casings similar to those in which champagne bottles are packed; each packing-case bore the seal of the Government Board of Hygiene as a guarantee against the introduction of any fruit pests or insects. The Italian Society of Horticulture advise in all cases the budding on to seedling root stock as against the use of cuttings, as is prevalent in California.

Dr. Gould imported some olive trees of the Maria and Rubra varieties from France two years ago, but the French packing proved very unsatisfactory as compared with the packing of those just received from Italy.

The date palm has not received the attention it deserves; it is more hardy than the orange, and in Florida has been known to bear fruit in four years from the seed. Avenues should be planted, which will soon become "things of beauty" and in time "joys forever" (almost). They should be grown in pots for a few years. The fruit of one variety is large and seedless.

Among other trees and plants which may be tested for profitable culture we may include the jujube (*zizyphus*), carica papaya, the vanguardia edulis of Madagascar, which grows exceedingly well in Florida, and sprouts readily from the root if frozen down; the zingiber, such as comes from China in the form of preserves, and has been grown in Trinidad; the eugenias, one of which, *E. pimenta*, furnishes the allspice; the peach palm (*guilielma speciosa*) with edible fruit, which furnishes the principal article of food in some countries; the leeches (*nephelium litchi*), and others too numerous to mention, which, with our oranges, figs, apples, plums, apricots, grapes, olives, loquats, diospyros, pomegranates, currants, bananas, lemons, limes, nectarines and other fruits which are profitably grown here, will eventually give to California a list of fruits and vegetable products that will astonish the world.

And the flowers—the florists and gardeners of other States and countries find that in order to become successful in their calling in California they must learn a great part of their experience anew. We turn the flowers of the conservatories of other sections of the United States and the old countries into our gardens, and we must look elsewhere for other plants to grow in our conservatories. The floral literature of other regions will not apply here. Each locality must gain knowledge by experience.

If our florists would imitate those of Europe we would soon have a cultivated flora of our own. The Europeans send scientific botanists and trained collectors to almost every portion of the globe in search of novelties and useful plants, while the various Governments establish botanic gardens at home and in their respective colonies in distant countries, which are under the direction of men who are selected for their capabilities and practical knowledge, and not for the reason that they have political influence and so gain preferment. Our own Government would do well to follow their example also. Many valuable and interesting flowering plants have been brought to California, and, from lack of proper care and attention to their requirements, have died out and been declared unsuited to our climate, whereas if they had been given proper care by competent persons they would have taken kindly to us and our surroundings, and made a permanent home in our land.

Mexico, Central America, South America, the islands of the South Pacific, and other countries, have beautiful flowers, multitudes of which might be introduced and satisfactorily grown and increased, but many of our flower-loving people have not the means to introduce them, nor the time nor facilities for their culti-

vation, while those who have the means, in a great many instances, have not the inclination; but if our State and municipal governments take the matter in hand, these new and choice flowers might soon be so abundant that they could be obtained by those who, although unable to import them from foreign countries, would be certain to care for the strangers, and cause them to increase and delight the hearts of many a weary toiler in our land, and materially lengthen our already long list of "conservatory plants" grown out of doors in California gardens, including the stephanotis, mandevilla, gardenias, camellias, bouvardias, begonias, fourcroya, etc., nearly all the tropical cacti, aloes, agaves, and allied genera, which are coming into notice and favor with our plant and flower lovers. With the flowering plants may be grown a large number of species of coniferous ferns from all parts of the world, which are being brought under cultivation.

In this connection I will mention that one of our citizens, Mr. E. Harper, has just returned from a visit to New Zealand, and brought with him some of the beautiful tree-ferns of that distant country to adorn his home in Santa Barbara, and furthermore, he remembers some of his friends, the writer among the number, and bought some for them, and they will join in hoping that he may live many years to enjoy the beauties of the silvery fronds of the *Cyathea dealbata* (silvery tree fern) he collected in the "bush." My esteemed friend, Mr. H. C. Ford, in his article "Ornamental Plants and Shrubs," read before this convention at its meeting at Santa Barbara in April of 1888, gave a long list of flowering plants, to which those who require more specific information are referred, and I concur with his closing statement that "our choice is bewildering," and will further state in conclusion, that, with a proper understanding of our climatic advantages and a knowledge of the wants and requirements of the trees and plants; with a rapid and continuous influx of intelligent people and the consequent increase of area and improvements in cultivation of our soil, there will practically be no limit to the forests, fruits and flowers of the California of the future.

Naturalists in Lower California.

Walter E. Bryant, one of the curators of the Academy of Sciences, has returned from an expedition to Lower California. The party consisted of Walter E. Bryant, ethnologist; T. S. Grandgees, botanist, and C. D. Haines, entomologist. They were accompanied by two Mexican guides and packers, and had a pack-train of ten mules. They traversed a space of 500 miles never before explored by naturalists, and after 3½ months' travel, embarked at San Quintin, Lower California, for home. At the meeting of the Academy on Monday evening, Mr. Bryant spoke of the results of the trip. He reports that the expedition succeeded in bringing back 100 specimens of small mammals, 200 birds, a collection of small reptiles in alcohol, a number of birds' eggs and 1000 specimens of plants. It cannot be stated how many of these specimens are new until they are compared with known specimens, though there will be many. The explorations covered most of the territory on the peninsula from Magdalena bay to Cape St. Lucas.

"Three weeks," said Mr. Bryant, "were spent in and about Magdalena and in going up the estero (a slough) 120 miles north of Magdalena to San Jorge. From San Jorge we went to Comodu, almost to the gulf shore of the peninsula. From Comodu we traveled 500 miles in 40 days with pack animals, following the mountains northward, and emerged at San Quintin, on the Pacific shore, about 140 miles south of San Diego.

"Some of our specimens were shot, but our most valuable aids we had in the way of collection were the boys at Comodu. While preparing for the expedition I got the boys in the neighborhood to bring in squirrels, foxes, mice and rabbits. I told them I would pay 5 cents apiece for each animal and 25 cents for large ones, such as foxes and squirrels. I also loaned the boys steel traps, with which to catch the animals. This plan I followed throughout the entire campaign, and by that means we were enabled to collect more animals than we ourselves could have done in a whole year."

Among the specimens are a large number of lepidoptera, many of which were new to naturalists.

At Comodu the ground squirrels were found a little larger than the California squirrel and much blacker, to which the name *Spermophilus grammurus atricapillus* (black-cap ground squirrel), was given. A male and female oivet cat of a new species are among the collection.

Mr. Bryant says the country in that section is not inviting. The coast is low and sandy, and there is much mesa land, covered with thick, thorny brush and various species of cactus. There is little or no timber.

"About the only thing that would ever populate the country," he says, "would be the discovery of mines. There are indications of mineral wealth. If a population once got into the country, through a mining craze or otherwise, no doubt agriculture would receive some attention, and, perhaps, like it was in California, uses would be found for the broad wastes of land now condemned by the natives as useless."

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Watsonville Grange Feast.....June 22
Butte Mt. Pomona, Masonic hall, Yuba City.....June 29
Sonoma Co. Pomona, Santa Rosa.....July 17
State Grange, Sacramento.....Oct. 1

Oregon.

Linn Co. Business Council.....July 6

Some Things in Our Grange Edition.

In our Grange Edition to-day the following matters of interest are mentioned at more or less length:

The Circulation of the Blood, The National Banking System, Fraternal Organs Indorsed, The Educational Influence of the Grange, Marks of Noble Women of the Past and Present, The Pennsylvania Grange Business System, Concerning Trusts, The Morrow County Granges, Politics and Markets, Oregon State Grange—Reports of Chaplain, Assistant Steward and Lady Assistant Steward; Umatilla Pomona Grange, Tualatin Grange.

Temescal Grange Meeting.

The Grange met at 2 P. M. June 15th. Among visitors present were Worthy Master Overhiser, Pauline Newkom of Yuba City, Worthy Flora of State Grange, Judge W. C. Blackwood, Master of Eden Grange, and Sister Mary Smith of Yuba City Grange. Brother and Sister Woodward, formerly of Yuba City, who have lately joined Temescal Grange, were also in attendance.

The State Master declined the chair proffered him by Worthy Master Goodenough, but was prevailed upon to act as Steward, whereby all late-comers and officers admitting them were made to walk a chalk-mark closely during the session. Bro. Overhiser gave the Grange a good many valuable points of instruction, thereby rendering his visit impressive and useful.

The Secretary read a letter from Eden Grange announcing that a class of five were expected to receive the third and fourth degrees at Haywards Saturday, June 22d, opening at 10 A. M., and inviting Temescal Grange to join in the exercises and Harvest Feast on that occasion. The invitation was accepted with thanks.

Judge Blackwood being called upon, alluded to a statement made by Governor Penney of Oregon in his address of welcome to the State Grange of Oregon, wherein it was said the profits of agriculture had been reduced almost to nothing. Also that our young men shirk from farming. The products of the farm in many places had depreciated from 25 to 30 per cent. Judge B. said legislation had been for many years detrimental to farming in order to protect other industries. Nearly every other industry in the land had been protected by enactments until agriculture was impoverished. Go on with such legislation and farmers must become penurious and beggarly in condition. If they would be relieved, farmers must require different legislation.

Being awake would remedy these evils. Farmers must act together for themselves, and vote together for the best men regardless of party. The evils of the caucus system must be annihilated. He was in favor of the Australian system of voting. As nominations are now managed the honest voter on Election Day has really nothing to say in the election.

Worthy Master Goodenough corroborated most of Bro. Blackwood's views and spoke of the encroachments of the various trusts and combines and the difficulties brought upon farmers and other industrial classes by their powerful influence.

Brothers Overhiser, Woodward and Renwick also expressed similar views.

Judge Blackwood mentioned the increase of salaries by action of the last Legislature to take effect after the administration of the present incumbents, and stated the fact that the Treasurer of Alameda county would thereby receive \$4000 per annum, a sum greater than the salary of the State Treasurer.

The people never called for this increase of salary, but from the fact that candidates are so highly assessed for election purposes in order to secure their positions, such increase might not have been made. [We should be pleased to have Judge Blackwood favor our readers, giving more fully his views on the subjects discussed.] Brief remarks were made during the meeting by Brothers Frink, Harper and Dewey and Sisters Newkom, Smith, Chapman, Babcock, Paine and others.

The following were appointed a committee on Women's Work: Sisters Whidden, Paine and Babcock. Worthy Master Overhiser is in earnest to have the sisters enter zealously into the auxiliary duties of advancing the cause of the P. of H. all over the Union, and is hopeful of much good to result from the appointment of the National, State and Subordinate Grange Committees. Every opportunity and encouragement feasible should be given the sisters to progress in their new undertaking.

After the close of the Grange, Worthy Master Overhiser requested all sixth degree members to remain, and in the presence of some eight sixth-degree members, Sister Newkom (who was unable to be present at the last State Grange meeting owing to sickness and death in the family) was obligated and instructed in the mysteries of the sixth degree in order that she might fill her exalted station of Worthy Flora at the next session.

By invitation of Bro. and Sister Frink, a

goodly number of members met at their residence in the evening, and a very pleasant, sociable meeting was held. The guests were treated to choice cake, coffee, and ice-cream, and otherwise agreeably entertained. Temescalites were well pleased with the visit of the Worthy Master and Sister Flora, and the occasion will be remembered with much pleasure.

Tulare Grange.

Sister S. A. M. of Tulare Grange writes: "There is little to report from our Grange meetings now. Since we are in the midst of harvest, naturally the attendance is not large. At our last meeting, the 15th, Bro. Hawkins, Lecturer, read us an excellent paper of which he is principal editor. It is called the *Grange Chronicle*, and is to be read when important discussions do not crowd it out."

Bro. E. C. S. writes from Visalia as follows: Tulare Grange was not so well attended on the 15th instant as was usual on many occasions previous, the harvest claiming the attention of many. A goodly number of matrons were present, which speaks well for them and shows a good degree of Grange interest. The Grange paper was read by Lecturer. It being the first issue, many were anxious to hear its contents. The articles were very interesting and instructive.

Co-operation was brought up by Brothers Mackie and L. B. Hawkins, but there was little discussion on the matter. The Pennsylvania system was explained by the writer. A similar system is much needed in this State.

The Grange has appointed Worthy Master Moore, Past Master Merritt and Bro. Touhy to act as assisting committee to the State Grange for entertaining the National Grange meeting, if their assistance is required.

[Tulare Grange will no doubt desire a visitation of the members and visitors to the National Grange on their way East over the Southern route, should the next session be held in California.—Eds.]

Woman School Trustees

In noting the election of Sister Flora M. Kimball as school trustee at National City, a brother writes from Tulare as follows:

"Much as I dislike to take even a little glory from any one, especially a sister, I cannot refrain from telling you that as usual 'Tulare is ahead.' One year ago at the election of school trustees of the Enterprise district (lying five miles northwest of Tulare), two were elected, both being women—Mrs. J. B. Zumwalt and Mrs. Samuel Fowler, the latter being a matron of Tulare Grange." Good for the ladies. More information on this subject would be appreciated.

Mrs. Colman, for years, made Shasta county an excellent superintendent of public schools.

THE FARMER'S CHAMPION.—A correspondent writes as follows to the *Watsonville Pajaronian*: How right the adage, "There is always some Brutus to our ambition." The brightest hopes and best-laid plans often result in melancholy ruin. As an illustration, observe the following: This promises to be one of Nature's bountiful years, and as a consequence farmers all over the United States have been cheered by the prospects of obtaining fair remuneration for their labor and invested capital. Owing, however, to the recent formation of trusts, pools and rings it seems a matter of doubt whether they receive anything. But right here the Grange steps in, and in no weak or uncertain manner speaks out plainly declaring such combinations as damaging to all public interests, a stab at the life of the consumer, and a deliberate attempt to wring from farmers millions of extra dollars. It proposes to meet organization with organization, and in a number of such States as Iowa and Illinois hundreds of Granges and thousands of Grangers have pledged themselves, and placed a penalty behind the pledge, not to use one pound of binder twine or buy another twine-binder, while the State Grange of Illinois offers \$10,000 to any one who will invent a binder which will use straw in place of twine for binding. Farmers through the Grange are being educated and cannot be run over as in their days of isolation and helplessness.

WEST SAN JOAQUIN GRANGE met last Saturday, June 15th, for the first time in several months. Bro. J. C. Allen, Worthy Secretary, informs us that they are trying to hold the Grange together, hoping for better prospects. We sincerely hope they will be able to revive the interest of the farmers of their vicinity, take in new members and make a vigorous fight for the cause. This Grange has 15 members and is situated at Tracy, in the fertile San Joaquin valley. It was organized April 14, 1873, being the third Grange in California. At its organization it had 24 charter members, its present Master, Bro. A. P. Stocking, being one of that number. Having been in existence 16 years, the members should work hard to prevent this Grange from becoming dormant. When will Stockton Grange visit West San Joaquin. It will do both Granges good to have a conference meeting and discuss matters of mutual interest to themselves and all other Patrons. Bro. Stocking, just challenge the Stocktonians to visit you!

Politics in the Grange.

MESSRS. EDITORS:—Please permit me to say a few words about "politics in the Grange." Our wrongs are nearly all political ones, and the Grange ought to speak out, loud and often. We are fed on gush and blarney by Wall-street bankers and railroad millionaires, while they steal away our liberties and our substance, and now I repeat the question I once asked through the California Patron, "What are we going to do about it?" Resolutions, talk and grumbling, Grange suppers, and Grange picnics, will never reach the hearts of monopolists. Souls, they are said to have none. Cursing them makes them laugh and grow fat.

What shall we do about it? Nothing, I presume, but growl. What could we do? We could walk up to the ballot-box and relegate every corrupt, mercenary, drunken sot to obscurity and disgrace. Will the majority do that? No. They will vote for the man nominated by the party, no matter what his character. Do you blame any one for being a pessimist?

The farmers, laborers, mechanics, and all producers are being robbed by an infamous banking system, outrageous tariffs, watered stock, railroads and trusts of every kind, and they are awfully sore, and grumble continually, but that amounts to nothing. Let us have more politics in the Grange! Let us have more politics in our religion and more religion in our politics.

We have been legislated into poverty and scoundrels control legislation. How do they do it? In many ways, and when a plundering law is once enacted the "House of Lords" can always be depended on to oppose its repeal. The people have no use for Senators, State or National—bankers and railroads have.

If we had never heard of a senate, made or patterned after the British House of Lords, we should never have been in our present deplorable condition. With such safeguards to plutocracy, can we (the masses) ever prosper again? The sanguine may continue to hope, and Heaven grant their hopes may be realized, but it has been said that "dead republics know no resurrection."

Starkey, Cal.
C. E. TOBEY.
[More politics without partisanship seems to be the present call on the part of many of our intelligent, thinking people.—Eds.]

Fourth of July Exercises.

We hope to hear that a good many of our Granges will improve Independence Day in holding Grange picnics and reunions of farmers and their rural friends. There is many a valley and foothill district in which an unceremonious Grange picnic could be held on the 4th to advantage. There is an inspiring fitness for Patrons to gather together, talk and enjoy themselves on that great day of the year. Especially should such Granges as have failed to hold a picnic this season, or to celebrate the Children's Grange Day, take occasion to commemorate our national holiday. If you have no orator on hand and want to make a demonstration, read the Farmers' Declaration of Independence, published in the California Patron of Sept. 29, 1888, extra copies of which, if wanted, can be had on application to this office.

BULL BUTTER.—The Grand Jury of Monticello, N. Y., has indicted Alfred Gilman for misdemeanor in selling oleomargarine as butter. Gilman is a wealthy grocery and provision dealer of that place. It is charged that the oleomargarine in question came from Connecticut and was shipped on the sly in unlabeled gunny-bags to the Gilman store, where it was sold to customers as genuine butter. The penalty for this offense in New York is a fine or imprisonment, or both, and in addition a fixed penalty of \$500, recoverable by civil suit. In Connecticut the manufacture of oleomargarine and sale as butter is not prohibited. The Legislature of that State lately passed a bill prohibiting the manufacture of this article, but it was vetoed by the Governor on the ground that "oleomargarine is a healthful article of food." Connecticut has our sympathy.

CHILDREN'S DAY.—A. B. Huntley, P. M. of Plumas Grange and District Lecturer, says that the idea of "Children's Day" did not originate with the National Grange. Plumas Grange had a Children's Day some ten years ago, and last February a committee was appointed to arrange for a Children's Day in June. Plumas Grange has been an efficient helper, broadening the agricultural life of that region.

HENRY LEE HATCH of Orange, Vermont, and Miss Annie Louise Chandler of Nicolaus were married last Tuesday at the residence of the late Hon. A. L. Chandler. Rev. L. B. Hinman performed the ceremony. The happy couple have the hearty congratulations of a wide circle of friends. They will reside in Vermont. And thus Sutter county loses another of her fairest daughters.—*Sutter County Farmer*, June 14th.

ROSEVILLE GRANGE conferred the fourth degree on a class of four last Thursday, the 20th inst., and held a Harvest Feast. A general invitation had been extended to all members of the Order, and a grand gathering was anticipated. We hope to receive a report of this meeting for our next issue.

Good for Watsonville Grange.

MESSRS. EDITORS:—If all the farmers in Pajaro valley could have attended the last meeting of Watsonville Grange, we feel sure that few would have gone away without a desire to unite with it. The hall was tastefully decorated by the deft fingers of willing sisters, matrons, maids, and husbandmen, vying with each other in the pleasant task. The shrines of Ceres, Flora and Pomona were fairly ablaze with the appropriate symbols of these offices. The beautiful ritualistic ceremony was conferred in a manner to make a lasting impression on any one. Another large class will be initiated in August, which will more than double the membership in this Grange. Farmers have at last begun to see the benefit of the Grange, and are flocking to it by hundreds all over the country. An open Grange meeting with exercises will be held Saturday, June 22d, at 1 o'clock sharp, at Ford's Masonic hall, to which all having the slightest interest in agriculture are invited. At the conclusion of the literary exercises the Pomona Feast will be served in the commodious dining-hall and participated in by Grangers and their friends who hold tickets. VACEILLE.

[We hope there will be a large visitation from neighboring Granges, with representatives from different parts of the State. Watsonville is now one of the liveliest and most progressive Granges in the California circle.—Eds.]

About Bobby Thistle.

MESSRS. EDITORS:—Her Majesty, Sister Edwin Thistle, insanely shuffled off into hysterics when she read the motherly advice written by a "mother of two children" and published in your last issue. The writer of this had selected a hospital to send her to, when lo! she took a notion to be rational again, and then we killed the fatted calf and joy was indeed unconfined around this agricultural emporium. My nerves were somewhat shattered, but I am at present doing as well as can be expected under the circumstances. At one time I was confident I was either in a land of earthquakes and perched upon the epicentrum or was hanging from a tripod head downward over a boiling caldron of all kinds of burning, steaming trouble. I wish, however, to offer thanks awfully to the thoughtful sister who loaded her blunderbus with a five-gallon powder-can and peppered hot shot into Sister Thistle and the orphan who is writing this for taking Bobby, our oldest son and heir, to Grange before his dear, lovely gem of a tooth had scarcely left its chrysalis state.

We always like to receive advice concerning the successful management of babies from those who have had actual experience in this particular field and who know what they are talking about, for we admit it is a subject deeply interesting to us and one on which we are decidedly green. Hence we have a profound respect for the sister's extensive knowledge of babies, and will suggest for the edification of a million young papas and mamas that she write a treatise on "kids." We are fully prepared to say Sister Unknown writes convincingly and with an apparent air of sincerity on the subject of babies, differing greatly from Miss Lucinda Jane Oldgirl, aged 49, who writes from hearsay only. Sister Unknown is evidently free from all envy that we possess such a real live prize boy as Bobby. Most people who have boys overlook the fact that our heir is a phenomenal boy—in fact they look at Robert through leather goggles. Yet they know at the end of the season he will surely get the pennant. Perhaps the conspicuous absence of the sister's envy can be accounted for by the hypothesis that her boys somehow are girls and have bangs and wear bifurcated skirts. If this be so, one of these days, by Sister Unknown's instructions, her girls will make sheep's eyes at our Bobby and she will give almost anything to be Robert Thistle's mother-in-law. Methinks now she is sorry (as she has two daughters, I think) Bobby was not twins. I will again thank the sister for her kindness and assure her we are trying our best to make Bobby feel perfectly at home. He is enjoying the best of health. He has so far enjoyed good health, with the exception of the first two months after his birth, when his tongue was coated with omelet-colored interrogation point-shaped dots, which were highly indicative of gout coming from too high living. Faithfully and fraternally.

EDWIN THISTLE.
Union House, June 16th

BRO. T. T. HOOPER ILL.—We have received the sad intelligence that Bro. T. T. Hooper, Worthy Master of Montezuma Grange, was taken with a sudden stroke of paralysis on the evening of the 6th inst., affecting his left side and completely prostrating him. Much sympathy will be felt for Bro. Hooper by all Patrons, as his well-known kindness, generosity and fidelity to the Grange cause have won for him hosts of friends. We hope for the brother's ultimate recovery from this severe affliction.

BENNETT VALLEY GRANGE.—Invitations are out for the Grangers' party to be given soon. This party will be given in honor of the new members who have lately joined the Grange, and will be strictly by invitation.—*Republican*.

The San Jose Grange.

Fruit Selling, Drying, Etc.

The members of San Jose Grange gathered in rather more than usual force at their meeting, June 15th, and two young men, members of an Illinois Grange, but citizens of Santa Clara county of recent date, joined them. Worthy Master O. F. Alley presided and H. A. Brainard was at his post as Secretary.

E. T. Pettit read a selection entitled "The Secrets of Happiness," and Mrs. S. P. Sanders another from her scrap-book entitled the "Lifetime of Man," both of which were received with expressions of approbation from the audience.

There was quite a comparison of views on the subject of fruits and fruit markets. One member from Los Gatos said he had been offered \$30 per ton for his apricots, but had not concluded to accept. A member from the Santa Cruz mountains said that a man who dried considerable fruit last year had told him that he could not afford to give more than a cent per pound for apricots and the same price for prunes. Another said he had been offered \$25 per ton for some large-sized prunes. Another member had learned that the Chinese cannery had paid more than that for apricots when they found what suited them. Another said he had visited that establishment and while they had quoted a price of \$35 per ton for apricots, they did not wish to enter into a contract with him for that price, preferring to take the chances of current prices by-and-by, be they greater or less.

As to sulphuring dried fruit, a member asked if there was any change in the demands of the market and whether there would be any call for unsulphured fruit.

The answer was that a proper and judicious amount of sulphuring would be required in first-class fruit; that over-sulphuring should be avoided. Sulphuring to the extent of killing the germs of ferment and decay and preventing the change of color by oxidation before the drying process had proceeded far, was undoubtedly a real benefit to the fruit. An exposure to sulphurous gas for 20 minutes would benefit rather than injure fruit.

The practice of dipping fruit in hot water before packing, and packing it while damp, the member said, was being cried out against in the market announcements of the dealers, and should be avoided if possible. Fruit so treated had changed color after reaching market, and partially spoiled. Another member said he had taken dipped fruit to the East and used it in his own family for several months, and kept it all winter without change. Others said that a quick dip into boiling water and drying carefully afterward was a benefit to the quality of the fruit. It was thought that the French method of curing prunes could be adopted with great profit.—*Mercury*.

The Assessment Question.

EDITORS PRESS:—I send a clipping from the Red Bluff *Sentinel* which I should like to bring before the farmers and fruit-growers, and I know of no better way than to have it placed in the Rural. The State Board of Equalization and assessors of the counties are doing the very best they can to rob the farmers, and if we stand quietly and make no effort to stop it, there is no telling where they will stop. It is very poor encouragement for us, after being at the expense of setting out an orchard and sowing alfalfa, to be subject to double taxation. If we should be so lucky as to find some other kind of grass better than alfalfa, they will want to make a treble taxation. We must fight then to the bitter end. N. MERRILL.

The following is the article to which Mr. Merrill refers:
State Board of Equalization and Assessors Condemned.

When I gave in to our county assessor my property tax for this year, and after all was completed, as I supposed, the assessor asked me the question, "Have you any alfalfa?" I informed him I had, also the number of acres and when sown; the first 20 acres in the winter of 1885, and the last sowing this spring.

What was my surprise when he (the assessor) informed me that he should levy another assessment of \$10 per acre on the old alfalfa and \$5 per acre on the last sown. I told him that was double taxation, and asked him by what authority he made such double assessments. His answer was, "By order of the State Board of Equalization," and at the same time produced the printed instructions. I read it carefully, but it said nothing about alfalfa; still he (the assessor) said that was the order of the State Board of Equalization, and he must make the assessment according to their instructions, even if it was in conflict with law.

The State Board of Equalization have usurped authority which they have no right to do. They plainly say, "We know the Legislature has enacted certain laws in regard to the assessment of property, but we are greater than the Legislature, and we pronounce the law unconstitutional, and we will instruct the assessors of the State to levy the taxes as we think best, regardless of law."

And it appears that our assessors think that the State Board of Equalization are to be obeyed, instead of the law which they have sworn to obey.

I wonder if they (the assessors) think of their oath of office? Was it to transact their busi-

ness according to law, or as the State Board of Equalization should dictate, regardless of law?

The State Board of Equalization is very badly afflicted with the "big head," and the sooner they are brought up with a round turn, and a great deal (not a little) of conceit taken out of them, the better. They not only disregard the law, but they instruct the county assessors to do the same.

As the law now stands, "no growing crops shall be assessed."

In defiance of the law, they assess a growing crop of alfalfa \$10 an acre, after the land has been assessed. They also assess fruit trees after the land is assessed, which the law plainly says shall not be taxed.

Now what will be the result of all this unlawful assessment? The whole assessment is made void, and no taxes can be collected.

Now I would ask the State Board of Equalization, Why do you defy the law and try to oppress the farmers of the State? Everything he has in sight, and you assess him up to the highest possible notch, and that does not satisfy. You assess some of his property twice; you defy the law and excite revolt; so does the anarchist. How much better are you than they?

Brother farmers, will you quietly stand with your hands in your pockets and be thus robbed (for it is nothing less than robbery) of your hard-earned money? Let every farmer and fruit-raiser see to it and refuse to pay this tax that is made in violation of the plain law. Yes, and would it not be a good lesson to our officers to bring them up before the court and have them explain why they are violating the law, and let them find out they must obey the law instead of a swell-headed State Board of Equalization who dare defy the law. N. MERRILL.

Red Bluff, May 26, 1889.

Fresno County First.

EDITORS PRESS:—That first and only carload of "May wheat" ever received in San Francisco was from Fresno and not from Tulare county, as in last week's Rural. Reedy, a thriving village built upon the new branch railroad running southeast from Fresno, by the energy of T. L. Reed, one of our enterprising big land-owners, is in Fresno county, just three miles east of Sanders P. O.

The Rural will remember O. L. Abbott, the first Overseer of Cal. State Grange. He is a large farmer and attorney of Reedy. The "76 Land & Water Co.," when land prices began to boom here, refused to their tenants the right to purchase, to which they claimed they were entitled. O. L. Abbott was one of their tenants and has taken the lead in litigation to secure the rights of the tenants. It looks now as though Abbott will win every case involving title to property worth hundreds of thousands of dollars. Success to him! W. A. SANDERS.

Sanders P. O., Cal.

HYDRAULIC MINING.—Judge Sawyer rendered a decision June 19th in the case of the United States Government against James Regan, Brick Hains, Too Good and others in favor of the plaintiff. The defendants had been working a mining claim on Cottonwood creek by a hydraulic process, and the Government brought suit to enjoin them from so doing. The defendants failed to appear at the trial and judgment was given in favor of the Government.

STATE FAIR.—The premium list for the 36th Annual Fair of the California State Agricultural Society has been issued in the form of a neat pamphlet, a few copies of which have been left with us for distribution. The fair opens Sept. 9th and closes on the 21st. Persons wishing to obtain the premium list by mail should apply to Edwin F. Smith, Sec'y State Board of Agriculture, Sacramento.

BRAZEN CHEATS.—The confidence man now gets on board a train in the character of an emigrant, tells a long story to the intended victim about a sick family, no money and nothing of value left except a ring (showing it) made of gold dug from their mines, worth \$20 or \$25, but which he will part with for less. He sells the ring, which proves to be brass.

THE PLACER COUNTY FAIR is to be held at Auburn, the week before the State Fair. The directors of the district have voted that for the fair of 1889 there shall be no purses offered for horse-racing and that no money shall be expended by the association in fixing up a track for racing purposes.

ASSISTANT EDITRESS WANTED.—Oregon furnishes a first rate editress for its Grange department. Why should not California? Who will recommend us an editorial assistant, not particularly handsome, but smart? Who recommends first?

MAKING HAY.—The Gridley *Herald* says that 25 men are constantly employed on the Ord ranch cutting and stacking hay. Over 2100 acres will be cut this season, 1500 of which is alfalfa.

THE publication of *Our Little Grangers*, Cincinnati, Ohio, has been discontinued, after ten years of existence.

EDEN GRANGE, as announced elsewhere, gives one of its well-reputed Harvest Feasts to-day. Let all Patrons who can, attend and be very happy.

AGRICULTURAL SCIENCE.

The Lakes of the San Joaquin Valley.

University Experiment Station, Bulletin No. 82

The rapid contraction by evaporation of the three lakes of the upper San Joaquin valley, the consequent concentration of their waters into alkaline lyes too strong for animal life, and the nature of the soils laid bare on their margins, have formed the subjects of investigation and discussion in former reports of this department, especially in connection with the reclamation and cultivation of alkali soils. (See reports for 1879, pp. 30 to 39; 1880, pp. 12 to 33; 1882, pp. 56 to 60; 1884, pp. 61 to 69; 1886, revised reprint from report of 1880: "Alkali lands, Irrigation and Drainage in their mutual relations," 45 pp.) It is a matter of regret that it has not been possible to pursue the subject by personal visits as systematically as its practical importance and theoretical interest might have warranted; for we are here in presence of a group of phenomena that have been repeated many times in past geological epochs, and for the study of which, in their physical, chemical and biological aspects, opportunity is not often afforded. Hence, while the information and data here given are of necessity incomplete and fragmentary, they are of interest as affording an insight into processes regarding which but little is thus far on record; and their communication may perhaps serve to incite others having the opportunity to do so, to a closer study of the progressive changes.

For a better understanding of the situation in the Kern and Tulare basins, the following statements from former reports are reprinted:

"A personal examination of Kern lake, and of the region lying between it and Buena Vista lake, as well as of the Mussel Slough country, made under the auspices of the United States census, in March, 1880, satisfied me that in none of these rich agricultural sections could the slightest increase of alkali be safely risked; and analyses subsequently made of the waters of both Kern and Tulare lakes prove that a very few years' use of the water then filling either of these reservoirs would be promptly fatal to the productiveness of the lands irrigated. As regards Kern lake, this was obvious enough from a casual examination and tasting of the water. Having been shut off from the natural influx of Kern river for a number of years, it has been rapidly evaporating and receding from its former shores, so that at the time of my visit a difference in level of over four feet had been produced in 15 months, leaving high and dry a boat wharf built at that distance of time. About 18 months before, all the fish and turtles in the lake had suddenly died, creating a pestilential atmosphere by their decay; and even the mussels were now mostly dead, a few maintaining a feeble existence. A strong alkaline taste and soapy feeling of the water fully justified their choice of evils. The tule marsh, laid dry by the recession of the lake, was thickly crusted with alkali, and the tules were dead, except where still moistened by the water of the lake, showing that the latter was not yet too strong for such hardy vegetable growth, albeit fatal to animal life.

"Buena Vista lake was stated to be in a similar condition, but not yet quite so far advanced in evaporation, and still maintaining some animal life in its waters, having lost its connection with the river more recently. Tulare lake is well known to be full of fish, and as it annually receives the overflow of Kern and the regular inflow of King's river, its evaporation and recession has been much slower; yet its water's edge is now distant several miles from the former shore-line, and as the water of the rivers is more and more absorbed by irrigation it will doubtless continue to recede until a point is reached at which the regular seepage from the irrigated lands will balance the evaporation. This epoch would seem, however, to be quite in the future as yet, for the rate of recession has, apparently, not sensibly changed in the last few years. It is not likely in any case that the water of the lake will be more abundant or less impregnated with mineral matter than is now the case, at the time when the state of equilibrium shall have been reached.

"With the lights now before us, it can hardly be regretted that the old Westside ditch, which was to irrigate the lower country with the corrosive waters of Tulare lake, was not successful. The lake level is now several feet below the bottom of that outlet, and the lake keeps receding annually, and its alkali becomes stronger as the mass of the water decreases. It is difficult to say where it will stop; but if, as is probable, a state of equilibrium is reached whenever the waters of Kern and King's rivers shall have fully filled the parched depths of the plains by a more general system of irrigation, it is not at all probable that the lake water will thereby become fresher; on the contrary, such seepage water will be likely to bring into it the alkali now dried up in the lower strata, and the annual evaporation will concentrate the solution more and more. It would certainly be most desirable to utilize the lake as a great reservoir for irrigation supply; but to render this practicable, it would be necessary first to empty out or displace the mass of alkaline water at present occupying the basin. The discussion of the feasibility of such an undertaking, however, belongs to the province of the engineer corps.

"The analyses referred to above gave the following results (in grains per gallon):

	Kern Lake, 1880.	Tulare Lake, 1880.
Date of taking sample.....	March.	January.
Total solid contents.....	211.60	81.80
Soluble after evaporation.....	182.75	71.16
Potassium sulphate.....	3.24	3.24
Sodium chloride (common salt).....	116.41	22.77
Sodium sulphate (Glauber's salt).....	17.93	17.93
Sodium carbonate (sal-soda).....	61.37	27.92
Insoluble after evaporation.....	0.29	8.80
Calcium carbonate.....	2.97	2.97
Magnesium carbonate.....	4.96	4.96
Silica.....	.44	.44
Organic matter and water.....	22.43	2.98

"To convey to those unaccustomed to the consideration of such matters an idea of the meaning of the above figures, it may be

stated that the solid contents of river water are usually from 10 to 20 grains per gallon. The water of Tulare lake, where it is undiluted by the inflow of King's river, is therefore about 10 times, and that of Kern lake about 26 times, stronger than an average river water. Even this, however, conveys but an inadequate idea of the relation sustained by these waters to organic life. The average sea water (containing mainly common salt) is about ten times stronger than the water of Kern lake as regards its solid contents, yet in Kern lake, fresh water fish live freely during part of the season, while in Kern lake the fish died at a time when, according to a minimum estimate, the water must have had about twice the strength of Tulare lake, or about one-thirtieth of the strength of sea water. This shows strikingly the deadliness of the Kern lake alkali as compared with sea salt, or, in other words, of Kern lake water as compared with tide water."

Condition of the Lake Water in June, 1888.

Early in June, 1888, at my request, Mr. B. F. Moore, Patron of the Experimental Station near Tulare City, sent a messenger to obtain a sample of the lake water in order to ascertain the progress of evaporation. The sample was taken 2½ miles out in the lake, 8 miles east of the mouth of King's river, not far from the Cross creek fisheries.

The water had a general greenish turbidity and considerable greenish sediment at the bottom of the bottles. This sediment showed under the microscope an abundance of green cellular plants, mingled with adherent fine silty matter, partly silicious, partly calcareous.

A partial analysis of this water (by Assistant Geo. E. Colby) resulted as follows:

	Grains per gallon.
Total solid contents.....	204.7
Soluble after evaporation.....	180.9
Sodium carbonate (sal-soda).....	4.4
Insoluble part.....	3.7
Organic matter and water.....	14.1

The soluble part consists chiefly of carbonate of soda and common salt with Glauber's salts.

The insoluble part consists of gypsum and carbonates of calcium and magnesium with some silica and alumina (probably clayey matter).

It will be seen from a comparison of this analysis with those made in 1880, that the solid contents of the lake water had increased very nearly 2½ times in the eight years, and that its concentration approximated closely to that of Kern lake in 1880. Yet it appears that an abundance of fish survived, at least of certain kinds, although, as will be seen below, the mussels had already succumbed.

The Condition of Tulare Lake in Winter of 1888-9.

Having been informed in November, 1888, that "the fish in Tulare lake were dying by shoals," I concluded that the water of that basin had by evaporation at length reached the limit of endurance of its inhabitants, who had probably found themselves unfit to survive the altered surroundings. Desiring to verify the facts, I in January, 1889, made arrangements to visit the lake in company with Mr. J. G. Woodbury of the State Fish Commission; but being delayed by imperative duties, I requested Mr. Woodbury to proceed alone, and while making his observations on the economic side of the question, to collect a sample of water and such other data as might present themselves. He accordingly visited the northeastern part of the lake, near the mouth of Cross creek, during the first week in February, and on his return communicated to me the following interesting account, which is here reproduced by consent.

"On the train I met several gentlemen who live along the railroad, opposite the lake, and was told by them that Tulare City was the best place to start from for a visit to the fishing-grounds. I engaged team and driver to take me to the fishery near Cross creek, a distance of about 25 miles, according to the driver's statement, and not less than 20 by my own estimate. At this point the lake receded last year about half a mile, and in consequence the fishermen were compelled to move their position about a mile farther into the lake. Their pound for the fish is half a mile from the shore and their seine is pulled 2½ miles farther out into the lake. It is afterward pulled in by a horse and windlass located about 200 yards from the shore, on a platform where the horse is also stabled.

"They catch about 125 pounds at a haul at this fishery; the fish come in on the seining grounds in warm weather rather than when it is cold; and as the same ground is continually seined over, it seems that the fish must travel considerably to keep it constantly stocked.

"I inquired about the reported dying of the fish. The fishermen said that it occurred last summer and autumn, and that it was mostly catfish, 'greasers' and some of the so-called trout, also some carp, but very few perch. Now it is the perch that is so much valued by the fishermen; in fact, the perch is what they fish for, as the catfish do not sell so well and the greasers are of no account. The 'trout,' of which I did not see any, they say are very soft and do not keep well, also are very insipid.

"The perch is certainly a very fine fish, large, bright and clean-looking; they are also very good eating, as I had occasion to verify. These perch have enormous mouths, and in that of every one in the pound can be seen a 'shiner,' (or 'sliok,' as they call the fish) with the tail sticking out of the great mouth, being drawn farther in as the process of digestion proceeds. One perch which I took along to have cooked, I took by the gills, and looking down his big mouth, I saw the tail of a fish, which I readily got hold of with my fingers and pulled out. It was six inches long and only its head partly di-

(Concluded on page 596.)



My Photograph.

The picture man's accustomed hand
Arranged me with celerity,
With judgment and dexterity.
He turned me right, he turned me left,
With wonderful rapidity,
Securing my inconstant head,
To give it due solidity.

He placed a river at my back,
And trees and rocks adjacently
Adjusted with artistic touch,
And viewed the whole complacently.
"Just drop your chin!" I dropped it, to
The best of my ability;
"But shut your mouth!" he added, which
I deemed an incivility.

Across the room, with dirty face,
A bric-a-bracket Psyche sat;
The artist backward jerked his thumb
And bade me keep an eye on that,
And eke to smile and also wink,
With dignity and suavity,
Whereat I smiled full solemnly,
And winked with awful gravity.

'Twas difficult—but now 'tis done,
With secret exultation do
I show to friends my photograph,
And note the admiration, too.

"How beautiful!" they cry, nor know
Their honest praise is praise of me,
Till, pressed to tell them whose it is,
"Tis mine!" I say triumphantly.

How I Wrote My Novel.

[Written for the Rural Press by MARGARET A. WORK.]

I made up my mind to write a novel, and as harvest was all over, and the wheat sold, and the work all done and everything quiet on the farm, I thought it was a good time to begin it; so I took my note-book and rocking-chair and went out into the orchard under the trees to think it over.

As I sat there eating figs, I decided who I should have for my hero; that was short work. Willie Kimball was my favorite of all the young men in the neighborhood. He was tall, well formed, frank and manly in his bearing, a little reserved for his age, but always kind and courteous, and as his father's large farm adjoined ours, I had seen enough of Willie to like him exceedingly.

Willie had a stepmother with whom I had no acquaintance, but Willie used to drop in sometimes on winter evenings, instead of going to town, to read our papers or play chess with the Granger. He was a favorite among the girls and was welcomed everywhere, but in selecting him for the hero of my novel I took into consideration the fact that his father was well-to-do and would probably deed him the quarter lying next to us when he was twenty-one. Then I fell to wondering if my stately friend Miriam Grey, who, being a city girl, would make a splendid heroine for my story, would in reality be a good match for him, when suddenly two soft arms fell about my neck and two cherry lips touched my cheek.

"My lady love, what are you dreaming about now?"

This was Dolly Dunton in her new blue calico dress, a bunch of white roses on her breast, smiling into my face as pretty as a picture, and bright and loving and fascinating as ever. I was always glad to see Dolly, though I should never think of putting her into my novel. She was such an every-day, friendly good sort of a girl, with nothing romantic about her. She was an orphan with no pecuniary prospects, but her aunt, my neighbor, gave her a good home and such advantages as the town school afforded.

Dolly loved flowers and colors, and as soon as I felt her soft kiss I knew what she wanted. She wanted that first lesson in painting I had promised to give her, for Dolly was always handy and willing to help me, and I was glad to impart to her my scanty knowledge of oils and coloring. I gave a little sigh over my interrupted thought as I slipped my notes out of sight. Dolly carried my chair in and we set up the easel in the spare room and went to work in good spirits. My pupil was very apt and happy in her work, so that I became newly interested in painting, and started another picture to fill up the spare moments. When it grew too late to work, it was time to hunt the eggs and get the supper; so I had no more time that day for my novel. I agreed, so loving and importunate was Dolly, to give her one day in the week for painting, in return for which she was to come on Saturday and do my baking and sweeping, while I drove to town and attended to my trading and society duties.

There was no more time that week for my novel, for one day I washed, and one day the Granger made over the chicken-house, and I spent the day talking to him and doctoring sick chickens. Then Saturday and Sunday came,

which are always crowded days, any way. Monday, some company came and spent the day, and Tuesday I washed and baked, and Wednesday morning everything looked fair for me to go to work on my novel. I had received a letter from my friend Miriam Grey saying she would surely come to the country as soon as the first rains had laid the dust, and I thought what a good opportunity I would have to write up a romance between her and my handsome Willie. Miriam's father was a lawyer with money, and I could easily work him up into a parent who would never, never consent to giving her to a plain farmer, and, with Miriam's fine culture and conscientiousness, she would worry herself to a shadow before she would disobey her father, whom she loved loyally.

So I sharpened my pencil and fell to work painting Miriam in a sky-blue tea-gown walking in my garden with Willie in his best, he saying bright, laughable things and snapping his riding-whip in the air. I had barely written ten lines when the Granger came striding into the house, evidently in a high state of excitement by the way he slammed the door. He rushed into the room with a gust of air.

"Betsy, I have engaged the barley-grinders, and they will be here to night."

I rose up in horror. Nine men to supper and not a loaf of bread or a pie or cake, or a bit of fresh meat in the house. "John, how could you? Why didn't you let me know?"

"Couldn't help it, Betsy. Kimball got through with his other job sooner than he expected, and he wants to do this and discharge his crew. They will be here all day to-morrow."

As I usually had help in harvest, I was naturally upset by this sudden invasion. But John was most obliging. "I'll do anything you want, Betsy, only set a good table; the Kimballs expect it."

It was no more than right that I should make an effort for my neighbor and his crew of men. I knew I could depend on Willie and his father for thanks and appreciation, any way; so while I rolled up my papers and hid them in a drawer I laid my plans for supper. I told the Granger to hitch up the cart immediately and go to town for fresh meat, and on his way to stop and ask Dolly Dunton if she would come over and help me out. Then I hunted the eggs, and built a fire, and skimmed the milk, and cooked three pans of sour milk and made some cottage cheese, and had my jelly cake partly done, when the Granger came back, his cart loaded with meat and grapes, and Dolly under a large sun hat as pretty and sweet as ever in a dainty white blouse, and all her skirts rustling as if they had come from a French laundry. In a twinkling she had her gloves off and her arms in the flour-tarrel and began mixing up piecrust without waiting or asking questions. And I admired her so much that I couldn't help putting my arm around her slim waist and giving her a good hug as I brought her a can of berries for the pies.

Our supper was a success. The biscuits were light, and the steak was tender, and everything just right, and Dolly and I stepped out into the cool of the evening to congratulate ourselves while the men filed into the lighted dining-room. Willie managed to spy me and came to give me his hand before going in. Dolly slipped behind me with her hand in mine as he came up, and I could see his face light up with pleasure at her pretty, modest action as he said: "And Miss Dunton, too; how shy you are!" She gave him her hand and said nothing, and when he went in she was still as a mouse by my side.

"Are you tired, Dolly?" I said.

"O dear me! no. I am so glad to come and help."

It was after nine o'clock before we had all the work done that night, though Willie insisted on coming in and wiping the dishes for Dolly, although I begged him not to trouble himself.

Then we took time after supper to have a few songs at the organ while the men sat outside in the moonlight to listen. But Willie and Dolly kept making mistakes over my shoulder—said they couldn't see the words; so I sent Dolly to bed and ordered Willie out of the house. He rushed back to thank me for a very pleasant evening. I was tired, and I fear Dolly was too, for as she stood in the stairway with the lamp in her hand to bid us good night I thought her eyes were over-brilliant and her cheeks too red.

Willie went home before dinner the next day, and as Dolly looked tired and dispirited in the afternoon, I let her go home too, and prepared the supper, the last meal for the men, myself. Then I had extra scrubbing and housecleaning to do, and I was just getting rested when the Granger took a notion to go over to Farmerton, about thirty miles distant, to visit several families of relatives we had there. He said he wanted to trade buggy-teams with a man over there, so we had best take the buggy and go over. So I had to look over our visiting clothes, and starch and iron our dusters, and cook up a lot for the hired man to eat while we were gone. So I hadn't any time to think of my novel then, and after we came home from our week's trip I was very tired for a few days, and then some friends came and spent a week with us, and then, before I knew it, County Fair came on, and we had promised to go, on account of the exclusion of bars by the temperance folks. I exhibited my grandmother's quilt, some old lace, and some canned fruit, and it all took time. We drove eighteen miles and staid three days, and when we came home from that, everything we

had was dirty or needed fixing over, so that the winter-seeding commenced on the farm and we began to have three hearty meals a day before I had any time to think of my poor neglected novel. But Willie went to the County Fair with us, and I took Dolly along too; and I noticed that he was growing more of a gentleman every day, so kind and honest and upright.

With the Ladies' Aid Society in town, and Dolly's lessons, and the winter flannels to make, I was busy for awhile, but I managed to get time for a little writing; so I fell to work describing Miriam Grey. She was a charming girl, pure and gentle and refined, and well-read; but thus far in life she had put her whole soul into her musical studies. I felt that now she needed an experience to find a soul; so I thought I would have them meet in Munich after their meeting at my house, she as a student of music, he as an American traveler, and there they would love and quarrel, and finally, after many sorrows and adventures, meet again at my house only to be parted by her father.

However, I had not made any progress in my work, when we had a lovely early rain and I knew Miriam would be up. Then I made up my mind to paper the spare room, and with going after the paper and everything, that took several days of time; then I cooked up a little in advance so as to have time to drive her around. She was coming on the morning train and I had to meet her myself, as neither the Granger nor his man could take time from the field. When the Granger went to hitch up Mary for me before going out to work, he found her so lame she was unfit to drive, so he came to the kitchen door to ask me if I was willing to drive Jo. Jo was a balky old horse, perfectly gentle as a usual thing, but he had spells of stopping in the middle of the road and standing there unmoved by whipping or coaxing till the spirit of horseflesh moved him to proceed. Once started, he would go furiously for fifteen or twenty yards, then jog down to his usual pace. Any one who did not know the horse would be frightened to death. I never liked to drive Jo when I had company, for fear of one of his tantrums; but there was no help for it, so I had him hurried off to look as well as he could and went to meet Miriam.

Miriam was there and looked as stately and stylish as ever in a black suit and an English walking-hat. I put her in the buggy and drove to the butcher-shop and bought some meat, and to the grocery and got some San Diego honey and some rushing, and then drove out of town in a hurry, for I thought I would be late about dinner.

When we were about half-way home, chatting gaily, Miriam let her veil float out of her hands into the air, and I stopped Jo to get it. When I was ready to go again, Jo wasn't. He wished to remain where he was. I was afraid to whip for fear he would kick, so I slapped the reins on his back and coaxed and clucked, but he only looked angry and stood still. Miriam began to look anxious, so I got down and took him by the bit to coax him a little. He was quite willing to go that way and almost trod on my heels. I led him along a few moments, then stopped him to go back to the buggy; but before I could get in, Jo suddenly decided to go and was off. Miriam screamed, and I saw her reach for the reins, but they slid over the dashboard. I knew at once that she would be all right if she only sat still, for I was sure Jo would stop inside of a mile. Nevertheless I was frightened enough, and hurried on as fast as I could. Then I saw a cart coming on ahead, and I was afraid Jo would shy to one side and tip the buggy over in the ditch. Then I saw Miriam stand up as if she would jump, and she did jump, but just at that moment the driver of the cart sprang out, caught Jo by the bit, and Miriam had hardly touched the ground when he took her in his arms. It was Willie, handsomer than ever in his blue working blouse, and when I reached them, Miriam was just opening her eyes from a faint and he was supporting her. I thought he showed good sense in not leaving her on the ground in that elegant dress.

When she had recovered, I saw that she was still afraid; so Willie said he would take her in his cart, and I drove off with Jo all right, and I said to him as I slid the harness from his high back: "Poor old Jo! you are not a prize horse, but you've given me quite a lift in my match-making scheme."

Willie came over that evening to see how Miss Grey was, and a few evenings after he came again, and while I was washing the supper dishes and making the hash and grinding the coffee for breakfast, Miriam found out that Willie's fine tenor blended well with her voice, and after that we had a feast of music; and I held my breath with joy when she told him to come over often, and she would send for some new music.

Miriam told me after he went away, and while I was resting on the lounge by the fire, that if she could help any one in music she considered her time well spent. She sat before the fire on a footstool, her soft gray draperies falling about her, her head resting on the cushioned arm of a chair, with her face thrown into the strong firelight, and I fancied I saw a new light on her face, a happy, sweet light, but toned down gently as if it dare not show itself.

(To be Continued.)

A solid chunk of wisdom was done up in a neat package by the Presbyterian delegate who said the other day that an ounce of taffy is worth a ton of epigraphy.—N. Y. Tribune.

A Forty-Niner's Yarns.

[Written for the Rural Press by Mrs. J. HILTON.]

As usual during the summer months, we have a number of men working for us. This year among the number is a little bit of an old man who is spryer than any of the young ones we have, and who always keeps us laughing by his droll ways and speeches. His has been an eventful life. He came to California in '49, and a life during the years of the gold excitement could not be tame.

He tells how he went to W—, of the life he led there as chore-boy, miner, Indian fighter and so on. I cannot reproduce his way of telling some of the incidents, as he points his stories by gestures, making them so telling, but will give you the words as nearly as I can.

In speaking of the temper of some men he knew, he tells of how, when he was chore-boy, the cook asked him to take a note for him to a young lady living a short distance off. He says: "Of course I went and took the note to the lady, and after she had read it I told her I was to get an answer to take to the cook. 'You tell Mr. Cook I do not live very far from him, and that he has a tongue, and if he wants answers to any business he has with me, he must come and tell it to me. I do not write to young men.'"

"So I goes back to the shanty and gives him her words. As it happened, there was a hen eating out of a swill-pail just inside the door, and when I gave cook the girl's answer he was so mad he grabs up the hen with both hands and pulled her right in two pieces and jabbed her down into the pail. I knew if I laughed at him he might try to serve me the same way, so I rushed out and had my laugh all by myself. When I told the young lady how he received her message, she looked as though she was glad she had not had anything to do with him."

"While we were at that place, a cry of 'Indians!' went up one morning, and we all made a break for our lives, for the Indians were on the warpath. One man would not go; he did not believe they would hurt him. I had a long shotgun and it was loaded with buck-shot. As I ran carrying my gun, I looked back to see how near the Indians were, and one was so close he shot an arrow so that it went into my breast. That made me mad, and I raised up my gun and gave him the contents of one of the barrels. He bounded into the air and dropped dead. I pulled the arrow out as I ran. It had struck a bone and did not kill me as that Indian meant it to; but I shall carry the scar to my grave. One of the men was so excited that as we were running across a shallow river he threw his gun into it and rushed along without it. As the Indians could not catch us, they went to the camp and killed the man that trusted to their kindly feelings. From all appearances he had been horribly treated before being killed. We raised a band of miners and returned to the place next day, and we did not leave many of the wretches to torture white folks, you bet."

Los Alamos.

Chaff.

THE LATEST AGRICULTURAL NEWS.—Jack (excitedly)—Mamma, you know that lemon-pit I planted last year that came up a pea-vine? Well, it's got string beans on it!—Life.

THIS MOT is attributed to Mr. Blaine: A friend met him and said, "How is your health, Mr. Blaine?" The Premier paused for a moment, rubbed his hand across his brow, and said, musingly, "Let me see, what newspaper did I read last?"

REV. DR. PRIM—Do you preach extempore, Brother Yallerby, or do you take notes? Brother Yallerby (from the South)—Well, sah, thar was once a time I took notes, but I've found it safest, down in my deestrick, to insist on habing the cash down.—Texas Siftings.

IN the parade the other day was a kilted Highlander. He made us wonder how they strike matches in that country.—Kansas City Sun.

A NEW YORK MURDERER, the first to be sentenced under the new law, says that he "would rather be hanged 40,000 times than to be executed by electricity." Perhaps so. After the first hanging he would become so hardened to it that he wouldn't dread the other 39,999 times.—Norristown Herald.

"THE trees are fast putting forth their garb- age," remarks a Canadian paper in casual recognition of the first signs of spring up there.

THE tower of Babel proved a failure because M. Eiffel was not there to build it. The Paris tower seems to have another attribute of Babel, for Rev. J. M. Buckley reports that 28 languages and dialects were heard recently at the base.—Christian Register.

AN UNNECESSARY ADMONITION.—A placard containing the following warning is posted conspicuously on the remains of the old barge at the foot of K street: "No Swimming Allowed on this Hulk." The author of that notice must have had a queer idea of the nature of the average boy. As if any one would care to take a dry swim on the rough deck of the old craft, covered with splinters and projecting nails, while the river flowed invitingly by! He probably was thinking of the Arkansas mother's warning to her charming daughter, who wanted to go out to swim.—Record-Union.

WATER FOR TEA OR COFFEE. *The Secret.*
American says: All tea and coffee drinkers can tell by their taste if the water from which the beverage is made has not boiled or has boiled too much. Either of these conditions will spoil the flavor of the costliest tea or the best coffee berry, but not every one knows the reason or how to avoid the result. The secret is in putting good fresh water into a clean kettle already warm and setting it to boil quickly, and then taking it right off to use in tea, coffee and other drinks before it is spoiled. If the water is allowed to steam and simmer and evaporate till all the good of the water is in the air, and the lime and iron and dregs left in the kettle, you must not expect a well-flavored cup of tea or coffee.



A. T. DEWEY.

W. B. EWE.

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SAN FRANCISCO:

Saturday, June 22, 1889.

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Coal Oil Engines—Osborn & Alexander.
Hams, Etc.—Thos. Loughran.

See Advertising Columns.

The Week.

The notes of the week are repeating themselves with slight variations. The Eastern telegrams are still charged with details of disaster—not the crowning casualty of Pennsylvania, for that has gone into history, fortunately, with a score of probably not more than 3000 lost lives, which is better than was hoped when estimates were running to four times that amount. The later misfortunes are, happily, smaller, but cover a large area of Eastern country. On June 15th dispatches from New Jersey, Delaware, Maryland, Eastern Pennsylvania, New York State and the New England States, as far east as Maine, indicate extensive damage to property and some loss of life by storms accompanied by lightning. Two days later, storms, cloudbursts and dambursts covered the area of Kansas, submerging towns, washing away railways and destroying human life. Crops have suffered not only in Kansas, but widely throughout the West, and the records of evil far exceed those of recent years.

In contrast to these again is the quiet of the elements on the Pacific Slope. The weather is all that could be desired for the ripening of field, orchard and vineyard crops, and the people are fully engaged in their several industries with nothing to molest or affright them. It is

true that there have been local losses by rust, and in many sections some fruits are light, and where fruit is abundant there is question as to the profit in its handling, because of low market rates and uncertain prospects; but these are minor evils compared with the disasters and misfortunes from which we are happily free. It must be a sad or deeply-afflicted being who cannot find occasion for thanks in California.

The Arid Lands Inquiry.

Evidently thorough and comprehensive work is contemplated by the Senate Special Committee on Irrigation and the Reclamation of Arid Lands, which will start westward from St. Paul on Aug. 1st. We have already noted the fact that timely attention is being paid to this matter by our State Board of Trade and other local organizations, but it is apparent that much valuable individual work may be done by those who have the facts and the inclination to bring them forward, and the committee desires the fullest recital of California experience and the results of enterprise.

The secretaries of the several State societies have just received a circular letter from the secretary of the Arid Lands Committee in Washington, which makes some pertinent suggestions as to what the committee especially desires to know, and as these points will be a guide to all who contemplate statements on the subject, we give them at length as follows:

(a) The extent of arid area in your section; that is, of land which for cultivation requires the artificial application of water to the same.

(b) The average precipitation, rainfall, etc.; the sources of water supply, and the means which, in the judgment of practical men, can be applied for its utilization by storage and distribution.

(c) The present extent of irrigation, if any; number of canals, reservoirs, weirs, dams, head-gates, etc.; their extent, length, cost, etc., and the area served; the duty of water per acre, and the measures thereof; the manner of holding water properly and of regulating its distribution; the rental or cost of water and all other related facts.

(d) The crops grown "under water," or without irrigation. Relations of pastoral and tree life to these questions, and in general any data that bear upon the subject.

The committee hopes to receive active co-operation, and also desires to again impress the importance of this great question. The address of the chairman, until the 20th of July next, will be: Hon. Wm. M. Stewart, U. S. S., Carson, Nev.

Another pertinent suggestion which is made on the part of the committee is that horticultural societies and associations consider at once, and as thoroughly as possible, the questions involved in the irrigation and arid land problems concerning their own districts, so that they may be able, through their intelligent representatives, to give the committee the benefits of their experience, knowledge and conclusions. Also, that a special effort be at once made to gather the facts and data in each neighborhood which bear upon the problems named, and that these be at once forwarded to the Senate Committee on Irrigation (care U. S. Geological Survey), Washington, D. C.

So far as the California State societies are concerned, they have already acted energetically in the matter, and will probably continue. We have received an interesting communication from Mr. Lelong of the State Board of Horticulture in which he calls attention to the proceedings of the recent convention in National City upon this subject, in the adoption of the following resolution:

WHEREAS, In the great State of California there are great areas of fertile lands, which are now more or less parched and arid, because of the uncertain and insufficient rainfall, and lack of moisture during a large part of the year, but which, with sufficient irrigation facilities, would produce abundant forage crops, and be especially suited to the production of the valuable fruits of the semi-tropics; and

Whereas, By impounding the surplus waters of the winter or rainy season in storage reservoirs, the water which now goes to waste may be utilized during the dry or summer season in producing sure and greatly increased crops; and

Whereas, The construction of such greatly needed works is entirely beyond the unaided efforts of our citizens (although much has been done by them), and the grand results desired can only be accomplished by aid of the General Government; and

Whereas, Following the example of older nations, Congress has undertaken the beneficent work of assisting in the building of irrigation works where needed; and

Whereas, The "Senate Committee on Irrigation" meets at St. Paul in August next to consider this important subject; therefore be it

Resolved, That a committee be appointed by the chair to meet the aforesaid Senate Committee and to present to them, by a manifest and forcible appeal, the pressing need that Government aid be granted our people in securing proper irrigation facilities for

those important sections of our State which contain large sections of arable but arid lands.

In pursuance of the above resolution, Mr. Frank H. Cunningham was appointed chairman of said committee. Communications may be addressed to him at Oceanside, San Diego Co., Cal.

All horticultural societies, commissions, and associations are especially urged to assist actively in the preparation of data. Mr. Cunningham has already presented a statement on the subject, which we will give at another time, and we have no doubt he would like as much more information as possible to present to the committee at some of the sittings in this State.

We are prone to claim in this State that Eastern people do not appreciate our Western conditions and needs, because they do not know the facts. The inquiry by this committee will give us the best possible opportunity to place all these things on official record, and it should be the pleasure of every one to do his share and duty in the matter.

Railway Rates Here and Elsewhere.

When California producers reflect how large a share of the gross receipts for their produce goes into the coffers of the railway companies, they are naturally led to wonder whether producers in other parts of the country have similar experience. Occasionally the claim is made that local charges are altogether too high and that the profits of the transportation companies are too large, and though such a general impression prevails, we are not aware that comprehensive data is offered to support the assertions. It is a very important matter, and it is desirable to have definite and authoritative statements that one may think clearly and speak intelligently. Fortunately, a document filed with the California State Board of Railway Commissioners during the present week contains many carefully prepared statements, which it is for the public interest to have generally understood, because they throw clear light upon a subject which is too little comprehended. R. G. Sneath of Jersey Farm, San Bruno, 14 miles south of San Francisco, makes an issue against the Southern Pacific Company that he is charged exorbitant rates for hay and grain from San Francisco and other points to his station, and fortifies his argument with many allusions to the general policy and charges of this corporation as compared with railway service generally in the United States. We have not space at this time to present a full outline of his argument, but its import so far as discrimination against his station is concerned cannot be perhaps more pointedly described than by the statement that he shows that while under an existing law (§ 489, Deering Civil Code, California Statutes) the charge from San Francisco to San Bruno should be \$4.50 per car, he is charged \$10 per car. This uncomfortable fact has set Mr. Sneath to investigating the subject of railway charges in this State as compared with those of some other States and of the country at large, and it is to the result of this investigation as laid before the Railway Commission that we wish especially to refer at this time.

Mr. Sneath shows that the charge of \$1 per ton in carload lots from S. F. to San Bruno, a distance of 14 miles, is at the rate of 7.14 cents per ton per mile; that the average rate for 100 miles south of San Francisco on the Southern Pacific is 2.58 cents per mile on hay and 2.94 cents on grain, and on general merchandise, in less than carload lots, is from 2.72 cents to 15 cents per ton per mile, according to the schedule of rates issued by the company. Compare with these figures the average rates elsewhere for similar service. According to Poor's Manual, an accepted authority, the average rate for the whole United States for all classes of merchandise and freight was only 1.063 cents per ton per mile for the year 1887. Compared with the average ton-per-mile rates in the following specified States, the overcharge in California becomes more glaringly apparent, viz.:

State or Territory.	Average ton rate per mile.
Vermont.....	.99
New York.....	.85
Pennsylvania.....	.88
Maryland.....	.59
Ohio.....	.65
Indiana.....	.70
Virginia.....	.80
New Mexico.....	.84

The average of the foregoing State averages is

less than four-fifths of a cent (.007966), while the lowest ton rate per mile of the Southern Pacific for 100 miles south of San Francisco is over 2½ cents. How the lowest Eastern rate would compare with the lowest Californian we are not told, but the fact that the lowest Californian is more than three times as great as the average in the States named is perhaps striking enough to occasion considerable thinking on the part of those who have to pay local charges.

But whenever the claim of high California rates is made, the friends of the corporation always set up counter-claim that railway conduct is more expensive in California, etc. How true is such a claim may be learned from Mr. Sneath's statement as follows: "The coast division of the Southern Pacific runs through a succession of rich, populous and productive valleys and numerous prosperous towns and cities, and that by reason of nearly a level grade, the cost and operation of such a road should be far less than the average road of the Eastern States, and which, together with the extremely favorable climatic conditions, should enable the company to afford transportation on equally favorable terms."

These remarks would apply to many other of the numerous divisions of the Southern Pacific Company's railways. The vast crops of hay and grain and fruits are rolled along the valley floors on a very even grade and over roads which must have been constructed very cheaply. Of course, the mountain divisions are not open to such characterization, but that is no reason why the valley producer should not get service over level roads to tidewater, or to and from the metropolis over such roads at a minimum rate.

Another serious charge which Mr. Sneath brings against the company, and which nearly all producers and shippers have also experienced to their financial sorrow, is the deficient equipment of the road in the commonest facilities for moving produce at times when there is greatest desire to reach the market and realize upon products. On this point the document "avers that from lack of rolling-stock and needful facilities, producers generally meet with large and irreparable losses by not being able to sell and deliver their products when the markets were favorable to them, or when they were in pressing need financially."

Such are a few of the charges now filed with the Railway Commissioners. They are worthy the consideration of all who desire the comfort and prosperity of our producing classes, and it would seem that no persons should be quicker to seriously consider them than the managers of the railway themselves, for their future business must largely depend upon the prosperity of their patrons. They are manifesting much enterprise in inducing immigration to California. They can in no way contribute more directly toward that desirable end than by ministering to the prosperity of those now endeavoring to gain a livelihood from products in the transportation of which they have practically no competitors.

A Silk Factory to be Started.

Some years ago about \$100,000 was expended upon the buildings and machinery of the Union Pacific Silk Factory, a few miles out of this city, on the San Bruno road, but the enterprise was not successful and the plant has long been standing idle.

It is now stated that the Japanese M. E. Mission, backed by Eastern capital, has bought the entire outfit for \$23,000, and will soon put the factory in operation. All the work is to be done by Japanese students, working in two shifts and spending half their time in the factory and half in school; the object being not so much to make money by the weaving of silk as to establish the mission on a self-supporting basis, and to teach the young men a valuable trade. Experienced men have been engaged as instructors in the work.

It is stated that the boys will be given their board and about \$3 a week at first, to be increased as they grow expert. About 150 of them will be employed, preference being given to those who are preparing for some mission in Japan.

The school, which is to be undenominational, will be under the charge of M. H. Nichols, who was for many years a missionary in India.

THE wool crop in the vicinity of Eureka, Nev., will this season amount to 150 tons.

FLORIST AND GARDENER.

An Announcement.

By an arrangement (which will we trust prove advantageous to the patrons of both journals) the *California Florist and Gardener* will henceforth be consolidated with the *Pacific Rural Press*. The *Florist and Gardener* was established by Mr. Emory E. Smith in May, 1888, and has been conducted by him with much devotion and intelligence, and to the evident satisfaction of his patrons. By consolidating with the *Rural Press* Mr. Smith secures a wider field for his efforts, gains for his old friends and patrons more than he could possibly furnish them in the monthly publication, and at the same time, by extending the work of the *Rural Press* in a direction which properly lies within its scope, he will aid us in making our journal broader and fuller in the important matters of gardening and floriculture than it has been hitherto. For these and other reasons we believe the new arrangement will prove of advantage and benefit to all concerned.

To all subscribers of the *Florist and Gardener* the *Rural Press* will be sent during their unexpired terms of subscription, and to those who have been hitherto subscribers to both journals an extension of time will be given on the *Rural* subscription, equivalent to the amount due them, dollar for dollar, from the retiring publication. Unexpired advertising contracts will be fulfilled through the columns of the *Rural*.

We sincerely welcome the circle of the *Florist and Gardener* to the ever-increasing community of *Rural* readers.

We trust to maintain with them the same cordial and friendly relations which have existed hitherto, and expect to put forth increased effort to aid them in their work, and to labor with them for the promotion of California horticulture in the special lines in which they find delight as amateurs or careers as professionals. We invite correspondence, by means of which the most distant can compare notes of gardening experiences and advancement, and thus prove mutually helpful and effective for the general good.

Gardening and Horticulture.

At present there are no more abused or misunderstood words than the two above.

In early history, all fruits, flowers, vegetables, etc., were grown in inclosures known as gardens, and all those to whom their culture was intrusted were called "gardeners." As the science and art of gardening became more extended, keeping pace with the growing enlightenment of the people, it became necessary to have a word of broader and more general meaning for application to things pertaining to gardening, and the word horticulture was introduced.

The time has now arrived, at least in the United States, when these two words have no longer a sufficiently specific meaning, and a great deal of confusion results. The tendency of the age to divide business into distinct branches has been markedly shown in gardening as we now have it. There are fruit-growers, farmers, ranchmen, florists, seedsmen, vegetable-growers, foresters, nurserymen, besides amateur gardeners, jobbing gardeners, public gardeners, landscape gardeners, and several other sorts. These are again subdivided into orchardists, small-fruit men, plants-men, cut-flower men, etc. Nearly all of these modern pursuits have an equal interest in and claim upon the use of the well-worn terms gardener and horticulturist. Still these several branches have become so distinct and so important that general terms are not only no longer applicable, but are sadly misleading. It would be well if we advanced a step and gave each branch a specific and recognized designation.

This tendency to specialists in these lines and others in the United States is much more pronounced than in leading European countries. Americans generally lack either desire or opportunity or both to thoroughly learn a whole trade or profession, and in restless haste to make money quickly follow out only that line of accomplishments which seems to in each case open up the shortest road to a substantial bank account without any regard to a well-rounded education.

It is indeed no longer possible for a man to be practically proficient in all branches of gar-

dening, and it is a public injustice to apply to a man following out only one or two branches a word which implies a fullness of knowledge or skill which is not possessed.

By clearly defining the occupations many ignorant pretenders who in a general way call themselves gardeners or horticulturists would be shown up, and the enlargement of the field would greatly encourage the acquirement of knowledge and skill. If the words horticulture and horticulturist are used at all, they should only be applied in the most general way to all gardening pursuits.

Cacti.

[Written for the *Rural Press* by MRS. M. M. CHILDS of Santa Barbara.]

The mild winter, abundant rains and warm sunshine have brought out a generous lot of cactus blooms, unusually large, and, as always, rich in color.

It pays to keep plants eight or ten years, or more, especially the better class of Phyllocacti, when you can have such lovely, fragrant blos-



SINGLE HIBISUS.

soms for so little care and labor. Nothing in plant life that we gather about us to adorn our homes will bear such neglect in the matter of water, food, and repotting, and then surprise one with such magnificent size and color. Phyllocactus America, Amaranthinus and Fallii give blooms that just cover a dinner-plate, and of the loveliest shades of glowing scarlet, with tints of rainbow hues of purple or violet, while Phyllocactus rosea-grandiflora, Dazzle, and Feastii outvie our lovely Duchess de Brabant roses in shades of rich rose color. When ama-



INDIAN BASKET MAKERS.

teurs shall have run through the various specialties one by one, they will settle down to a varied collection of the best of each species of plants to be obtained, and then add to each specialty as novelties make their appearance. Then we will have reached the perfection of gardening, when our roses shall not be neglected for the chrysanthemums nor our cacti, aloes, agaves, yuccas and palms for the dainty gracefulness of the ferns.

The Basket-Makers.

The accompanying engraving is a reproduction of a view of an Indian village on the borders of Mexico adjacent to San Diego county. The landscape and flora are distinctly characteristic of the country. The hut with its tiled roof is similar to many of those found in the district. The group of natives in the foreground are among the few remaining of their race, who have retained the art of making the peculiar baskets for the production of which they were once famous. The baskets are woven from a species of grass, made pliable by preparation. They resemble, when complete, the rounded crown of a hat and are water-tight, being used extensively for culinary purposes.

California Lilies.

[Written for the *Rural Press* by CARL PURDY, Ukiah, Cal.]

In all bulbs of the lily family California is rich. Of the true lilies there are eight species. The *Fritillarias* are also represented by eight species. The *Mariposa* and *Star tulips* are known botanically as *Calochortus*.

The Pacific Coast has over 25 species of *Calochortus*, and of these, the most beautiful and varied in color of our wild flowers, California monopolizes three-fourths. Close to the *Mariposas* in beauty, the *Brodiaeas* number over 15 species, in many striking forms. The *Fire-Cracker* is styled a *Brodiaea* or *Brevortia*, as botanists fancy, and is equally striking under either name. Three *Erythroniums* represent that beautiful genus, the *Dog-tooth violet* of other regions. The *Soap-root*, *Chlorogalum*, is too common to attract attention here, but the foreigner who, after great pains, brings one to blossom, can better appreciate the delicate beauty of its white, wax-like flowers.

History immortalizes the *Camassia* as the

commended them to the European florist, but it took long to learn how to grow them and why ripened bulbs were hard to obtain and costly. Still they grow in favor, and it is safe to say that our lilies, brodiaeas and calochortus are better known in England than they are here in their native home. It is not true that Californians should begin to encourage our native bulbs and give them the place in the flower-garden that their beauty deserves? A bed of calochortus or brodiaeas, a clump of lilies, or a well-grown bunch of trilliums, will vie in loveliness with the queens of the garden. In concluding this article I would call attention to the fact that our liliaceous bulbs are fast disappearing. In the valleys farming, and on the mountains sheep-raising, are fast killing them. For awhile they lingered along the fences and in neglected corners, but the barley grass, dog fennel, and other weeds, drove them out. It will not be many years before they will be rare where they formerly flourished by thousands, carpeting the earth.

Ukiah, Cal.

[Written for the *Rural Press* by FRANKS B. SAUNDERS.]

As a shrub for lawn planting, nothing that I have seen surpasses the hibiscus in beauty of flower and foliage, or shapeliness of form. It is a constant bloomer, and is one of the things that will survive much ill treatment, though no plant can be neglected with impunity. Being of symmetrical form, it requires little training, unless it be to prevent its branching too low down.

The foliage is very attractive, the leaves having a particularly fine gloss from which the dust is easily removed by the wind, a feature of no small merit in this country.

But its chief attraction is in its flowers, which are borne in profusion and are remarkably large and brilliant, and are thrust well out upon single stems. I have one of the sub-vioaceous variety, which has created a good deal of flattering comment among my friends, and indeed, many strangers have stopped to inquire its name. It was planted in May, 1888, and being a small mailing size, I had faint hopes of its success, as the season was so far advanced when it came. But how it did thrive! And almost at once it began to bloom and continued blooming until Christmas.

It requires good drainage and sufficient but not too much water. Soap-suds may be used freely as a fertilizer, ammonia added to the suds to the amount of a tablespoonful to a gallon of water. The soil should be well worked, and never allowed to bake. In this climate the hibiscus will grow to a height of three or four feet the first season, with wood well matured. Frost nips the buds and tender leaves but does not kill the shrub.

Redlands, Cal.

Canary Seed.

[Written for the *Rural Press* by HON. I. A. WILSON, Santa Clara.]

For the information of your Santa Clara county correspondent, I will state the following circumstance:

Stephen Abbot, my father-in-law, who resided in Fruitvale, Alameda county, and who gave name to that valley, there raised this seed by the quantity as early as 1856, and for several years thereafter. He sold the seed at the rate of 10 cents per pound, by the quantity, and realized as much as \$1000 a year from such sales. It was no more difficult to grow than a crop of wheat. The only difficulty was in thrashing out the crop. This was done with the flail to avoid bruising and breaking the seed, as was the case when he tried thrashing with the machine.

Wild canary seed grows in the fields in this county and in some other regions. The seed is smaller, but the seed-stalk on head has with this exception the same appearance as the cultivated kind.

No doubt other means for thrashing might be resorted to, making the crop a more profitable one. While the price was much higher than at present, the seed was superior to that usually sold in the market, and therefore more valuable.

It would be advisable to fit the ground well; to plow deep in land free from weeds, making it fine and in a condition to hold moisture. Sow seed broadcast or in drills, as with other grain, and harvest in same manner.

The beauty of our liliaceous bulbs soon re-

AGRICULTURAL NOTES.

CALIFORNIA.

Amador.

THE LAST FAIR IN IONE.—*Ione Echo*, June 15: The directors of the 18th District Agricultural Association of Amador and Sacramento counties met in Ione, Saturday, present, Directors Gregory, Frates, Peek, Borden, McFarland and Treasurer Woodley and Sully La Grave. It was unanimously decided to set the fair for Aug. 1st, 7th, 8th and 9th. This is the same week as last year, and, everything considered, is undoubtedly the best that could be selected. This season is a forward one, and there will certainly be a better display of fruits and other products than last year, and then the showing was a grand one. The board accepted the report of the Pavilion Committee and closed the bargain with A. J. Amick for the purchase of the Bloomington warehouse property. Price, \$2700. This property, with a few hundred dollars spent in alterations, can be made a fine pavilion. The speed program was considered at length. The list of races as agreed upon will bring many of the best horses in the State here. The purses are all liberal, and the different races of the most popular kind. The board resolved to permit no unlawful gambling games on the fair grounds. The premium list was revised and numerous increases made. The citizens of Sacramento county give assurance of taking an active interest in the fair, and many exhibits and a large attendance may be expected from there.

Contra Costa.

THE USEFUL LADYBUG.—*Antioch Ledger*, June 15: N. W. Smith informs us that from apple trees last year infested with codlin moth he is this summer gathering a fine crop of sound fruit. He attributes the freedom from the worm to the presence of a species of ladybug, described as having peculiar markings. Where Mr. Smith's fine orchard was beginning to be invaded by aphids this busy insect has done good work also.

Fresno.

TWENTY-FIRST DISTRICT FAIR.—*Fresno Republican*, June 14: The Third Annual District Fair will be opened October 1st, concluding on the evening of the 5th. The racing purses will aggregate \$10,000, and the display of canned and dried fruit is expected to be much better than that of last year.

NEW WHEAT.—*Fresno Expositor*: On Thursday, June 6th, Willett Gates delivered to the Fresno Milling Co. in this city, 120 sacks of new wheat, being the first installment of a purchase by the milling company of his entire crop of between 7000 and 8000 sacks. As an instance of push and go-aheadativeness, it may be said that this wheat was headed, thrashed, sacked, delivered and ground into flour, all in the same day. Last year the first wheat delivered in this city was on June 21st, showing that the harvest this year is some two weeks earlier.

THE FRESNO MILLING CO. last year handled no less than 130,000 sacks of wheat exclusive of all other grain, and this year it will handle at least 200,000 sacks. From one man alone the Milling Co. purchases from 60,000 to 80,000 sacks of wheat.

Inyo.

FAIR DIRECTORS' MEETING.—*Independent*, June 15: The directors of the 18th Agricultural District met at Independence last Saturday. A. W. Eibeshutz presented his credentials as successor to W. Walker, who failed to qualify. F. McIver also presented his credentials, both being accepted and admitted as members of the Board of Directors. Committee on Premiums presented a list which was approved. A committee, consisting of Directors Eibeshutz, Robinson, Shepherd, McIver and Miller, was appointed to prepare the racetrack for the coming fair. In order not to conflict with the State Fair of Nevada, the time for holding the fair of the 18th district was changed from the dates named at a previous meeting; the fair will be held Sept. 24-27. The secretary presented a report of the financial transactions of the association for the past year, which was accepted, approved and ordered on file. The total receipts of the association for the year were \$2939.50. The secretary produced receipts from the treasurer and from the bank of D. O. Mills at Sacramento, for the total amount of \$2945.15, leaving a balance in his favor of \$5.65, this amount having been advanced by him to help pay a certain warrant. The total liabilities of the association up to date were shown to be \$3182.09. The assets are the pavilion and grounds and racetrack at Independence. A meeting of directors was ordered to be held at Independence on Saturday, June 29th.

Los Angeles.

THE LAST OF THE ORANGES.—*Pasadena*, June 14: The last carload of oranges for the season was shipped yesterday. The total shipments have been 150 cars, 45,700 boxes. The value of the total orange fruitage for the season is about \$80,000 net.

APRICOTS ABUNDANT.—*Pomona Cor. Chronicle*, June 16: The apricot crop of Pomona valley is nearly ripe. The Pomona Horticultural Association has found by a personal inspection of the orchards that the total crop of the valley will amount to 475 tons. This is 15 per cent larger than was ever raised in the valley before.

fore. A heavy crop of apricots is reported everywhere in this vicinity, and scores of farmers report that the limbs are breaking away from the trees because of the heavy weight of fruit upon them. A larger part of the deciduous fruits here this year will be dried.

Placer.

A BIG CHERRY TREE.—*Newcastle News*, June 12: The Hector cherry tree is 83 inches in circumference 6 feet above the ground, and is over 60 feet high. When fruited, the branches have a spread of 65 feet, and without fruit they have a spread of 54 feet. Last year there were sold from the tree 300 10-pound boxes of cherries, which averaged \$2 per box, thus realizing to the owner \$600 from the crop of the tree.

San Bernardino.

SUGAR BEETS.—*Chino Champion*, June 14: Tests of sugar beets made yesterday were satisfactory, 14 samples from various parts of the ranch giving an average of over 14 per cent sugar, several reaching as high as 17 and 17½. From ten plantings from February 21st to 28th, miles apart and in the various grades of soil, yesterday's tests gave an average of over 14 per cent of sugar; and 14 samples from plantings from February 21st to about April 10th, of all sizes, gave an average of over 14 separately, and also from combined quantities of the juice. These separate and combined tests practically prove the high quality of Chino-grown sugar beets.

BEES AT BANNING.—*Herald*: There is no better place for bees in Southern California than the neighborhood of Banning. In a fair average year one stand of bees will store 100 pounds of comb honey or 200 pounds of clear honey. The bee season opens here in March. The willows are then in blossom. After the willows comes the Yerba Santa; then follow manzanita, buckthorn, green sage, mountain clover or wild alfalfa, white sage and wild buckwheat. The white sage makes the best honey of any flower named. The first honey is taken about the middle of May, and the last at the end of August. This is a late season and no honey has yet been taken. The swarming-time is in May. There is no trouble experienced in saving swarms, the old-kettle-beating and showering we used to have recourse to in the East to bring down a swarm of bees being unnecessary here. In this county bees need attention steadily from March till September. One man can handle 100 stands if the product is extract honey; 200 if the product is comb honey.

San Diego.

HONEY.—Mr. Cowden of J. B. Cowden & Co. lately informed the *Sun* that the county honey crop was very abundant this year, as numerous rains had provided great quantities of "bee material," especially of the white sage and wild buckwheat. San Diego county honey, he said, was famous for its superior qualities, and last year they sent it as far east as Salt Lake, and as far north as Juneau City, Alaska. An agent will be kept on the road throughout the season. He arranges with the stores in the various honey-producing neighborhoods to act for him, and in this way the product is received as soon as it is offered. On the north the honey centers are Oceanside, from which a large quantity of extracted honey was received; Escondido, Fallbrook, Murrieta and Temecula. On the south the largest supplies come from Dehesa, Dalzura, Campo and Jamul. The honey is all graded by the firm before it is shipped. When comb honey begins to come in they expect to send a good portion of it to the East. Last year the firm shipped out 4½ carloads.

San Joaquin.

JOINT WORMS.—*Stockton Independent*, June 12: Gen. Kethum yesterday brought into town samples of his wheat which has been seriously damaged by the joint worm. He estimates that about one-third of the average yield of one of his fields has been lost off this year by the worm. A farmer living near the Calaveras river says the joint worm has been destructive in his section for three or four years. He says the only way to clear a field is to change the crop or burn all the straw and stubble.

FIRES ON ROBERTS ISLAND.—*Stockton*, June 15: Big grain fires have been reported on Roberts island, but the fact is the losses do not amount to more than \$3000 and all the fires are out. One field of 150 acres of barley and another of 70 acres of wheat have been burned, but there were no further fires up to midnight. June 17: Peat fires broke out again yesterday on Roberts island, and 1750 acres of grain were burned, all of which was insured for from \$11 to \$15 per acre. It is thought tonight that the fires will not spread, men being employed to watch all sides. The great danger is in the high winds, which take up pieces of burning peat and carry it into the grain. There are about 12,000 acres in grain on the division of the island where the fire raged yesterday and to-day, and the farmers are very anxious. The fire which broke out had been in the past ever since last year's straw was burned.

Santa Barbara.

SANTA MARIA FAIR.—*Times*, June 8: The dates for holding the annual fair in Santa Maria have been fixed by the Directors of Santa Maria Valley Agricultural and Stock Association for Sept. 18th to 21st. Further information will be given from time to time.

AN UNWELCOME RARITY.—The forked lightning so common in the East reached our valley on Tuesday evening last about 5 o'clock, striking

and burning a stack of hay belonging to John McGuire, on the Dargie ranch, about 2½ miles from town. There was about 45 tons went into ashes. Fortunately the rain quickly followed, which prevented the fire from spreading.

Santa Clara.

THE COMING FAIR.—*San Jose Mercury*, June 16: The Agricultural Society met yesterday afternoon for the purpose of arranging a speed program for the fall fair. When President Topham called the meeting to order, Directors Boyd, Boots, Eas, Sargent, Quinn, Murphy and Secretary Bragg were present. Topham, Boyd and Murphy were appointed to prepare a premium list for the coming fair, with instructions to report at the next meeting. The committee was authorized to increase the premiums to the extent of \$1000 over those of last year if they thought it advisable. G. B. Polhemus, having offered to give a special premium of \$30 for milk cows, was requested to arrange for giving the premium in to the committee just appointed in time for them to report at the next meeting. The secretary was instructed to order the posters for the fair from the Stowbridge Lithographing Co. of Cincinnati. Pool-selling privileges were awarded to J. N. Killip for 65 per cent of the gross receipts, on a guarantee that these should amount to not less than \$1513.

Shasta.

FLOURISHING PEACH TREES.—*Anderson Enterprise*, June 6: The six acres of peach trees that John Hawes set out on his place a mile east of town, one year ago last February, make the best average showing in size and symmetry of any peach orchard of equal territory that we ever saw. The trees are all well shaped and nearly of equal size, standing six or seven feet high, the foliage dense, leaves large. They show perfect health. H. K. Pettygrove talks about three peach trees that he set out last February. They were taken from nursery stock here and were not out of the ground more than 20 minutes in transplanting. When transplanted, they were cut down to mere stocks, leaving but a few limbs. A measurement of the wood-growth in the main branches before the 1st of June, showed 110 feet of limbs (not counting any of the smaller branches, from a foot to two feet long, of which there are a great many), and the trees reach an altitude of more than eight feet from the ground. Trees beside them, received from the nursery below, show splendid health and a magnificent growth, but do not begin to compare with the trees taken from the ground here. This shows that they do much better by being planted as soon after unearthing as possible.

Sonoma.

RASPBERRIES.—*Petaluma Argus*, June 15: D. Hakes of Valley Ford brought in his first load of raspberries on Tuesday. His crop is very good this year, and he has increased his patch to 17 acres. The bushes he put out last year are now full of fruit. Mr. Hakes has 20 girls engaged in picking, and will soon have 25, which number he thinks can pick as fast as the fruit ripens. He will not have any except white help, and takes all girls when he can get them. There are so few engaged in the culture of raspberries that he finds no difficulty in disposing of his fruit at paying prices.

Sutter.

CANNING 'COTS.—*Yuba City Farmer*, June 14: The cannery here is now running with a large force of help and making a good daily average. The work is entirely on apricots, and the fruit mostly first class. During the last week the apricot crop has been ripening rapidly, and the numerous orchards will keep the cannery running in full blast for about 20 days, when the peach crop will take precedence. New machinery and more accommodations have been added to the various departments, which add greatly to the working facilities.

Tehama.

SHIPPING WOOL.—*Red Bluff Sentinel*: Cone & Kimball Co. has just finished grading and baling for S. Koshland & Co. about 500 square bales of wool, selected from the choice clips of this county, and have started by special train 11 cars which go by the C. P. and U. P. direct to Boston on fast time, so that our wool sheared in this county in May will be on the Boston market by the 15th of June. This is enterprise and dispatch.

COUNTY FAIR ASSOCIATION.—*Red Bluff Sentinel*, June 15: Articles of incorporation were filed in the Secretary of State office at Sacramento Tuesday for the Tehama County Agricultural Association. There is no capital stock. The directors of the association are G. G. Kimball, C. B. Aeburst, Isaac Rambo, W. W. Bates, B. W. Bidwell, E. C. Fortier, J. S. Cone, B. A. Bell, H. B. Shackelford, Geo. W. Vestal, G. C. McCoy, James H. Goodman. This association was formed about a year ago, at the time the organization of the county fair was being agitated. Articles were also filed in the County Recorder's office. The purposes of the association as set forth are to conduct and maintain an annual fair and to encourage agriculture, horticulture, stock-raising and manufacturing. The corporation is to exist 50 years.

Tulare.

FIRST WATERMELON.—*Delta*, June 13: B. C. Anderson, who owns a well-cultivated fruit ranch near Visalia, ate his first ripe watermelon this season on June 5th. This is about two months earlier than our Eastern friends can enjoy them.

HOG CHOLERA seems to be prevailing in all

parts of the county. John Frans has lost over 25 hogs. Geo. W. Francis gives the following remedy which he has found to be a sure cure for his own hogs: Throw one can of concentrated lye into water enough to soak a bag of barley in. See that the lye is dissolved, and let the barley soak over night. Then feed the soaked barley to the hogs.

SALTING ALFALFA AND STRAW SANDWICH.—*Visalia Times*: W. H. Dodds of Mussel Slough strongly recommends the practice of salting alfalfa when stored away for feed. He says the salt keeps the alfalfa tender and appetizing, and prevents it from sending forth the dust usually encountered in it when not salted—at least, he ascribes to salt the latter virtue. In putting the feed away he first forks down a layer of it and then salts it, pursuing this manner until the barn is full or the stack completed. This season Mr. Dodds will put by his straw with his alfalfa—a layer of straw and then a layer of alfalfa, and salting each layer. It is his observation that stock eat the feed closer when it has been salted.

FOR AN IRRIGATION DISTRICT.—*Tulare Register*, June 14: A petition asking for the formation of an irrigation district embracing Tulare City and between 60,000 and 70,000 acres of surrounding territory will be presented to the supervisors at their regular session on the 1st of July. The petition is signed by 133 as solid citizens as there are in the country and men who represent nearly half the land in the proposed district. Doubtless many more names, representing many thousands of acres more, could have been obtained could the parties have been seen; but some are absent and some who are known to favor the movement have not fallen in the way of circulators of the petition. Indeed, no project of public importance has ever been started that meets with such general and hearty approval. There is an abundance of water available from the Kaweah river to irrigate all this territory if it is properly utilized.

Ventura.

EDITORS PRESS:—The season for honey is advancing, and although the hives are pretty well filled it requires a fight to take it out, the bees are so cross these days following foggy nights. The indications are that the crop will not be more than half as large as last year, though the quality of the honey is very fine. As to fruit—apples will yield but about half a crop; pears are doing finely. The summer is cool.—S., *Fillmore*, June 10th.

SHORT BITS.—*Ventura Vidette*, June 15: More beans were planted this year south of the river than ever before. They are usually small white or navy beans, and are looking well. Supervisor Dudley reports crops in his section looking much better than ever, especially beans. Peter Rice informs us that his fruit trees, as well as others on the Las Posas, are full of fruit. It is thought that the yield in late-sown barley on the south side of the river will not be up to the usual standard, owing to a small fly that attacked it in the early stages. Peanuts from the ranch of H. K. Snow, New Jerusalem, are on sale in the grocery stores. They are as fine as grow anywhere.

NEVADA.

IN CHURCHILL COUNTY.—*A Gazette* representative recently paid a visit to Churchill county and Mason valley. The river is running nearly bank full, and the luxuriant fields of alfalfa that line its banks from Ragtown to the sink are nearly ready for the sickle, and every rancher is using his best shovel in an earnest endeavor to make the entire Carson river run through his own particular ditch. The first crop of alfalfa will be above an average, and a few weeks more of the present flow of water will make the second at least a fair one. The annual spring rodeo, just closed, shows the cattle on the ranges thin in flesh, with rather more than the usual percentage of winter loss, and far less than the usual percentage of spring calves.

ARIZONA.

CATTLE SHIPMENTS.—*Wilcox Stockman*: Geo. W. Stratton, Supt. of the San Simon Cattle Co., was in Wilcox the other day and stated that his company have shipped about 7000 head of cattle, nearly all steers, out of the Territory during the past two months. Of this number about 4000 head went to Montana. They had gathered together, at one time, in one herd, 5000 steers, which, we venture to assert, was the largest steer herd ever rounded up in the Territory by one firm. Grass in the San Simon was never better at this season of the year, and stock are all in good condition.

VERDE VALLEY ITEMS.—*Cor. Hoof & Horn*: The Verde river roundup ended May 24th, at Beaver Creek, after a long and tiresome siege, during which time the boys handled many thousand head of stock, under the supervision of Dolph Willard and Johnnie Bee, as captains of the river division, and Mitchell Borch, captain of Beaver Creek division. The boys will rest up a few days and then resume work on the Mogollon mountains. The farmers of this section are preparing to harvest their barley and alfalfa. Both crops are good. The stockmen never were in better spirits than now; spring feed is good, the calf crop is first-class, and all beef steers are already fat and sleek; all they lack is a market, and if something would burst Armour & Co., they would be supremely happy.

The Lakes of the San Joaquin Valley.

(Continued from page 559.)

gested. The fishermen say that all these perch when caught have fish in their mouths, in proof of which he pulled out one at random with a dip net, and showed the perch with a shiner's tail still out of the mouth.

"The fishermen state that no catfish are now caught, while two and three years ago they would get a wagon-load at each haul; also, that trout are now seldom caught, although they used to be very abundant. The men expressed no opinion as to the cause of the death of the fish, but stated that the catfish especially were drifted upon the shore, dead, by thousands.

"Catfish, however, are found by millions at present in the creeks and sloughs that run into the lake. A gentleman who lives on his farm fully ten miles from the lake, and who fishes in a small way for his own table, is of opinion that the destruction of the catfish and carp is caused by their being driven on the shallows by the wind, and left in shallow pools which, when the water recedes, soon become so hot that the fish die. I questioned him very particularly about this; and as he is very intelligent and his father was a fisherman whom he frequently assisted in his work, his views are entitled to weight. He has a boat and sailed around the lake last summer, and states that the deepest part of the lake, in the channel which runs from south to north in the direction of the old outlet into the San Joaquin river, does not exceed 20 feet; that outside of that channel it is generally not over four feet, gradually shallowing toward the shore. Notwithstanding this shallowness, the action of the wind should mingle the different portions pretty thoroughly and render the alkali about even throughout.

"Before starting on this trip he was told that he would have a good wind throughout his journey, as the wind blew from the center of the lake toward the shore. He states that he found it to be true; that he had the wind 'abeam' all the way.

"The two bottles of water I sent you were taken at various distances from the shore out to the fish-pound. Although the fishery is located off the mouth of Cross creek, as there is no water in that creek for several miles out from the lake, the water of that portion could not have been perceptibly freshened by its influx at this season, although some seepage doubtless occurs. The water of the lake is very muddy and has a nasty taste and smell; very much like that of a well about a mile from shore and 100 feet deep, which was, however, drank by the people at the farmhouse as well as by their stock, and left them all healthy. One of the horses of my team, however, was relaxed in its bowels all the way to Tulare, and the same happened to the driver and to myself.

"All the shore of the lake for miles, as far as I could see, was strewn with mussel or clamshells; the surface of the ground was white with them, and the wheels of the carriage crushed through them as though more than half the substance of the ground was actually made up of shells, as I have no doubt is really the case. They told me that these shells extend here, as thickly as on top, down to the depth of a hundred feet, as shown in the well referred to above. Not a live clam can be found in the lake now.

"I have subsequently been informed that ten years ago there were large numbers of live mussels in Tulare lake and that the hogs used to live on them then; that they would wade out into the lake and plunge their heads under water, get hold of a mussel and hold their noses up in the air and chew them up.

"All the (seven or eight) fisheries are located within four miles of Cross creek mouth; no fishing is now or appears to have been done near the mouth of King's river, 10 miles to northward, for the reason (according to the fishermen) that the water is too shallow.

"For the whole distance of 20 miles from Tulare City the country is of remarkable fertility, almost level, and where put into wheat the growth was strong, even to within two miles of the shore of the lake, where the land had been plowed through solid tule roots. The growth was very compact, strong, and of a beautiful green color, and had stood out abundantly; which, to my mind, showed that the rawness of the soil or the quantity of alkali had but little effect upon the growth. For long distances among the tules alfalfa covered the ground. I had no idea of the value and extent of the arable land of Tulare county until I rode over the immense extent of that plain to the lake. I think the time will come when Tulare will be one of the very best of the agricultural counties of the State.

"Speaking of the future of the lake—it must have been a good deal lower than it is now, for near the mouth of Cross creek there are many stumps which were under water only last year, and among which the fishermen used to get their nets entangled; these stumps are now just at the water's edge. Of course they could not have grown under water. Again, in a little surface well near the landing-place at the fishery, there is at the depth of about 18 inches, all around, a ring of blackish organic matter or mold, quite distinct from the yellowish clayey earth both above and below it. It looked as if it might be decomposed tules, and if so, the water must have been off the ground long enough to allow these tules to be decomposed and made into soil. There are now under this water about 200,000 acres of land of what might be made

the best quality, and this land under alfalfa would be worth many times what it is now under water, for fishes. Why would it not be a good idea to drain this lake down four feet lower, to the banks of that channel, into the San Joaquin river, through a canal that would at the same time serve as a water-way up to that old channel in the lake through which boats could go with freight? I think that by this scheme in a short time all the surplus alkali would be drained into the ocean from the lake and the surrounding country, for as the fresh water from the mountains is spread over the land it must sink down and gradually push the more alkaline waters down the canal. So the land would in time be freed from alkali and the canal would be kept full by underdrainage, which the lake now receives and evaporates."

Present Composition of Tulare Lake Water.

The sample of water sent by Mr. Woodbury was quite turbid, partly from fine mud, partly from the presence of greenish micro-organisms. Its taste was flatfish saline, and quite nauseous to the stomach. Exposed to the light, it soon became filled with rapidly increasing green gelatinous films and coecel, the exact nature of which was not investigated.

Upon filtration, which progressed very slowly, and did not clear the water completely (as is usual with waters impregnated with alkaline carbonates), considerable organic matter still remained in solution, and had to be removed by ignition before proceeding with the analysis. In presence of an excess of carbonate of soda, this ignition could not interfere with the accuracy of the determinations of acid ingredients.

The result was as follows:

Analysis of Lake Tulare Water.*

Specific gravity, 1.0050 at 62.5°.

	Grains per gallon.	Parts in 10,000.
Total solids.....	303.07	51.98
Soluble after evaporation.....		
Sodium chloride (common salt).....	292.96	48.84
Sodium sulphate (Glauber's salt).....	95.79	16.40
Sodium carbonate (sal-soda).....	73.76	12.63
Potassium carbonate (sal-soda).....	94.71	16.22
Potassium sulphate.....	15.68	2.63
Insoluble after evaporation.....		
Calcium sulphate (gypsum).....	6.97	1.19
Calcium carbonate.....	1.47	.25
Magnesium carbonate.....	1.07	.18
Silica.....	2.55	.44
Organic matter and water.....	1.87	.32
	16.12	2.76

The following table summarizes the composition of the Tulare lake water at the three different periods:

	1880.	1888.	1889.
Date of taking sample.....	Jan'y.	June.	Feb'y.
Total solid contents.....	81.80	204.7	303.07
Soluble after evaporation.....			
Sodium chloride (common salt).....	71.16	186.9	279.97
Sodium sulphate (Glauber's salt).....	22.77		95.79
Sodium carbonate (sal-soda).....	17.23		73.76
Potassium carbonate (sal-soda).....	27.92	74.3	94.74
Potassium sulphate.....	3.24		15.68
Insoluble after evaporation.....			
Calcium sulphate (gypsum).....	8.36	5.7	6.97
Calcium carbonate.....	2.97		1.47
Magnesium carbonate.....	4.95		2.55
Silica.....	.44		1.87
Organic matter and water.....	2.28	14.1	16.12

The figures in the above table hardly require comment unless it is to draw attention to the extremely rapid increase of the solid contents of the water between June, 1888, and February, 1889, as compared with the effect produced during the previous 7½ years. The latter was about 2½ times or 150 per cent on the whole, or an average of 13 per cent a year; while in the eight months preceding the last examination, the increase was nearly 45 per cent. It should be noted that these eight months were remarkable for very great evaporation elsewhere on the coast, also; and that they formed the end of three years of rather deficient rainfall in the State. The more abundant moisture of the season just passed, may have stopped or perhaps even reversed the process; a point which will receive attention within a short time. It will then be possible to predict with some degree of approximation how nearly the condition of natural equilibrium between the evaporation from the lake surface and the seepage from the streams and irrigated plains referred to above, is being approached, and to forecast the future of the lake and of its inhabitants if left to themselves.

Whether or not it will be expedient to interfere with the natural course of events, either for the establishment of a great irrigation reservoir, or (as suggested by Mr. Woodbury) for the reduction of the lake to a mere water-way in order to reclaim the lands now covered by it, is a question too complex to be discussed here. The answer will in a measure be determined by the decision of another question, viz.: whether the increased saline strength of the lake water is due wholly to evaporation, or in part to concentrated solutions of alkali extracted from underlying beds by the inward seepage. If a consideration of the area and depth lost by the lake within the last year shall show that there has been a distinct accession of alkali salts from the outside, the use of the drained lake-bed as an irrigation reservoir will be of very doubtful practicability, as it would imply an annual addition of such salts to those already contained in the natural soils irrigated therewith.

It is hoped that all persons who may, from their own observation, be able to throw light upon the history of the recession of these lakes, will communicate the facts so as to place them on record. It is with the hope of obtaining such additional data that this bulletin is issued in advance of the general report of which its subject-matter will form a part.

*Analysis by Mr. E. M. Hilgard, Special Student in the Agricultural Laboratory.

E. W. HILGARD.
Berkeley, Cal., June 15, 1889.

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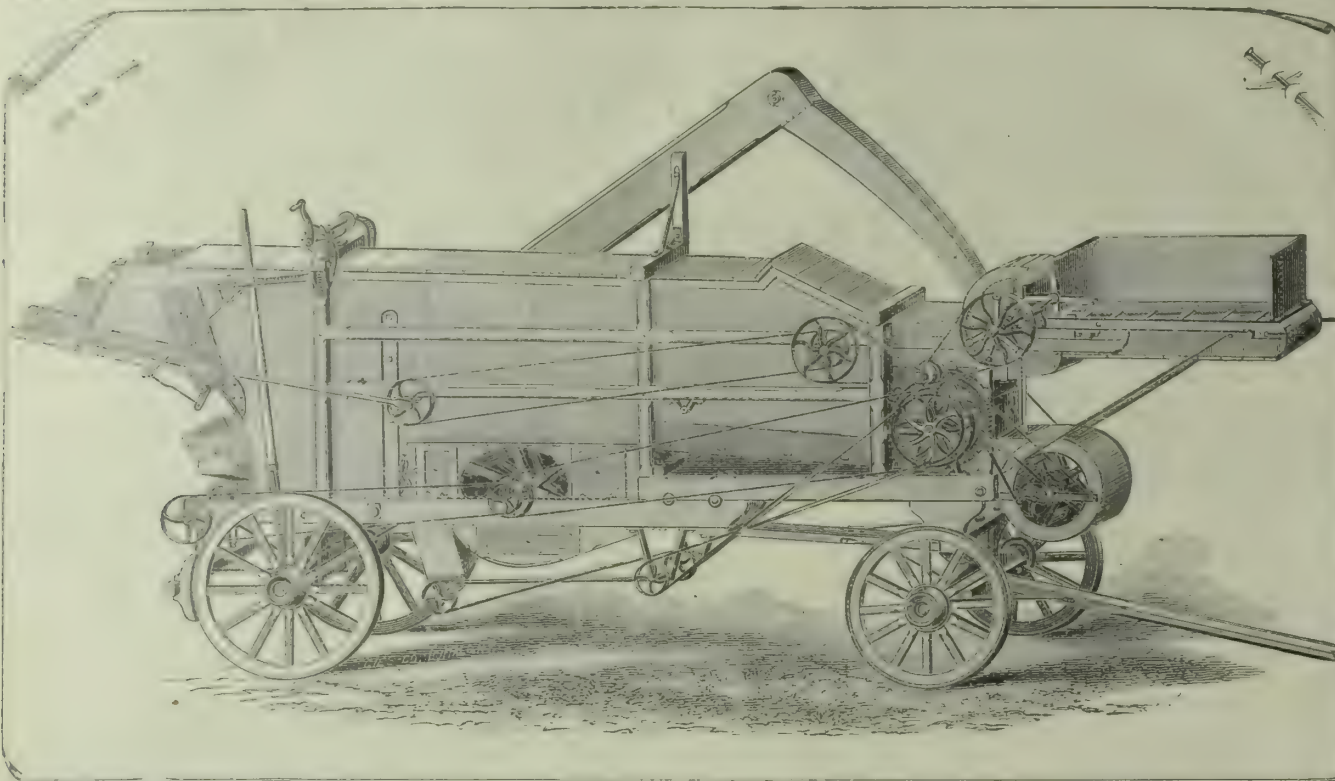
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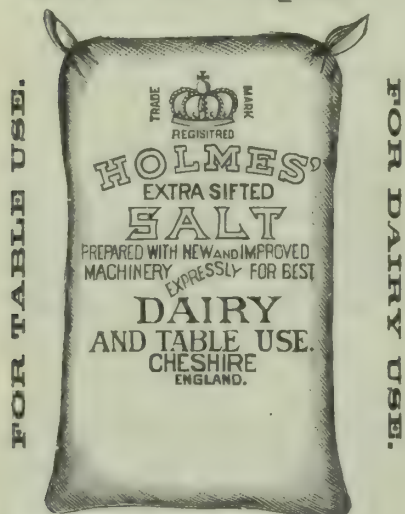
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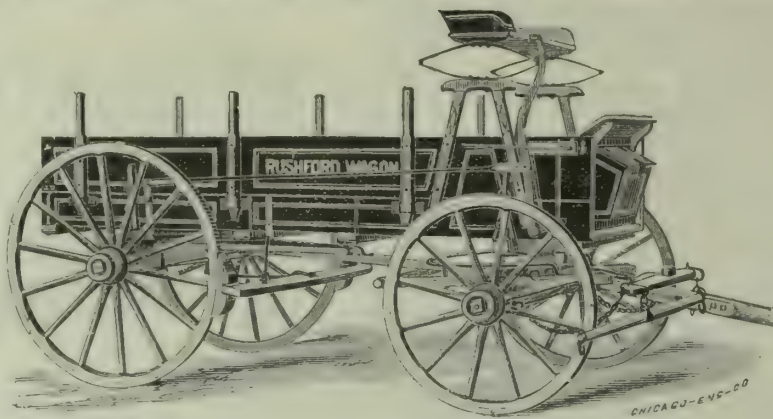
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THE RUSHFORD WAGON
Will Carry the Earth!



[From the Montague Herald, Montague, Siskiyou Co., Cal., May 1, 1889.]

One day last week a huge landslide on Ball's mountain caught an Oregon teamster's wagon and buried it beneath several tons of earth and rock. The horses were not touched, and the teamster jumped in time to save himself. A force of men dug out the wagon, and as it was a RUSHFORD, with National Tubular Steel Axle, it was not injured. The "Rushford" is beyond contradiction the best wagon made.

PILE ON THE MOUNTAINS!
The King of Wagons Can Stand It!

Farmers, if you would be Happy and Contented, buy a "RUSHFORD" Wagon, with either Steel Skeins, Old Reliable Concord Steel Axles, or with National Tubular Steel Self-Oiling Axles, which are Stronger and One-Third Easier of Draught than any other.

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For Stump and Bank Blasting. From 5 to 20
pounds blows any Stump, Tree or Root clear
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Railroaders and Farmers use no other.

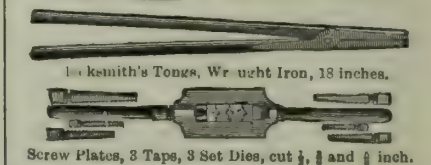
THE SCIENTIFIC KIT OF TOOLS

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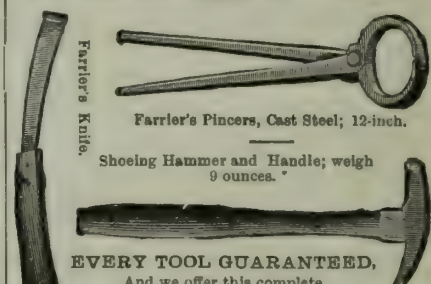
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1 1/2 lbs each; both solid cast steel.



Screw Plates, 3 Taps, 3 Set Dies, cut 1/2, 3/4 and 1 inch.



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Shoeing Hammer and Handle; weigh
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A practical treatise by T. A. GARREY
giving the results of long experi-
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PUBLIC AFFAIRS.

Taxation of Fruit Trees and Vines.

EDITORS PRESS:—The Act of the Legislature exempting fruit trees and vines from taxation, and the action taken thereon by the State Board of Equalization, directing assessors to disregard it as unconstitutional, brings the subject of taxation prominently before the people.

As this is a question of law and not sentiment, it would be well for us to understand the legal principles involved in the controversy.

A Constitutional Question.

What property shall or shall not be taxed? is a constitutional question and is clearly defined in the Constitution, and the Legislature has no power to exempt any property from taxation.

The Supreme Court, passing upon an Act exempting growing crops from taxation under the old Constitution providing that "All property in the State shall be taxed in proportion to its value," decided:

"The revenue laws of the State are unconstitutional so far as they exempt private property from taxation, and all parts relating to such exemption must be disregarded."

"Growing crops are private property and subject to taxation, the provisions of said statute exempting them notwithstanding." (35 California Reports, page 677.)

The same court decided in the case of *The People vs. Eddy*, 43 California, page 333, that "it was not intended by the framers of the Constitution that the Legislature should have the power to exempt any kind of property from taxation."

What are growing crops under the new Constitution?

The new Constitution, Article XIII, Section 1, reads as follows:

"All property in this State shall be taxed in proportion to its value, to be ascertained as provided by law, provided that growing crops shall be exempt from taxation."

The important question arises, what property does the term "growing crops" exempt from taxation?

The Legislature immediately after the adoption of the Constitution defined "growing crops" as those crops which require an annual planting or sowing or annual harvesting.

The Supreme Court, in the case of *Cottle vs. the Assessor of Santa Clara Co.*, reaffirms the legislative definition and decides that trees and vines are not included in the term "growing crops" exempted from taxation by the Constitution.

This decision of the Supreme Court is the supreme law of the State, and is a final adjudication of the true intent and meaning of the Constitution, and is binding upon the Legislature, the State Board of Equalization, the assessors and every taxpayer of the State.

The fact that the Legislature has disregarded the decision of the Supreme Court does not authorize or excuse the like disregard of the supreme law of the land by the officers of the State charged with the lawful execution of the revenue law.

Wright, June 8, '89.

FRUIT GRADERS.—There is much being done in the invention and introduction of fruit-graders, and certainly no class of devices has apparently a wider field of usefulness in this State. G. W. Thissell, the well-known fruit-grower of Winters, has one of his own invention which is working admirably and effectively, of which the public will hear more in due time. The other day Joseph A. Hofmann of 208 Montgomery street showed us an Eastern grader which he has set up in his store and which he would be pleased to have fruitmen examine. It has an excellent Eastern record, and is worth the scrutiny of California growers.

CALIFORNIA FRUIT UNION.—At a meeting of the California Fruit Union held Friday, June 14th, Hon. W. B. Parker of Vacaville, president of the Fruit-Growers' Association of Vacaville, was elected a trustee in place of T. U. Buckingham, resigned. The office of R. B. Blowers as trustee was declared vacant, and John Boggs, president of the Newcastle Fruit Co., was elected to fill the vacancy.

THE MUIR PEACH.—Next week we shall give important documentary evidence throwing light on the origin of the Muir peach, and which will apparently be conclusive as to the fact of its being a seedling.

THE Sweetwater Nursery Company of San Diego has incorporated with a capital stock of \$25,000. Directors—J. T. Gordon, J. Munsell Brooks, George W. Hawkins, John Ginty and J. Daley.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, term of subscription, and give it their own patronage, and as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

THE VINEYARD.

Viticultural Commission Meeting.

The Board of State Viticultural Commissioners met in semi-annual session on June 11th, in Platt's hall. The following Commissioners were present: I. De Turk, George West, Dr. W. S. Manlove, L. J. Rose and Charles A. Wetmore. The following officers were elected for the ensuing year: President, Charles A. Wetmore; vice-president, I. De Turk; treasurer, Charles Krug; secretary, C. B. Turrill; chief executive officer, Charles A. Wetmore; manager of hall, Clarence J. Wetmore. By unanimous vote of the board all the appointed officers appointed by the Executive Committee were confirmed and continued. Chief Executive Officer C. A. Wetmore made an extended detailed report of the work of his department, calling attention to various channels through which the work of the commission can be greatly enlarged and improved, and by which great benefit will result to the viticultural interests of the State. He suggested that monthly lectures relating to grape and wine interests should be delivered in the hall. He also stated that he expected, as soon as his other duties will permit, to prepare for publication an extended original treatise, adapted to California, on fermentation and distillation.

The report of J. H. Wheeler, late Chief Executive Officer, was read and carefully considered. He reported at length on his examination of the Los Angeles vine disease. He has sent circulars to the leading vineyardists and requested them to send specimens of diseased vines. These specimens were submitted to Professor Dowlin for examination. Mr. Wheeler in his report uses the following language:

"My interpretation of Mr. Dowlin's reports leads me to understand that this fungus, which is common to all of the diseased vines of Los Angeles county, is the agent which performs the finishing work of destruction. The application of a fungicide arrests the decline of the affected vines, causing an apparent revival of the plant, which falls again into decline if left too long without a revival of the application. * * * In my judgment, the first cause of the evil is yet to be found, and until then vineyardists must operate with the Bordeaux mixture, or the powder proposed by Mr. Shorb, to prevent the fungus from accomplishing its final work."

The Chief Executive Officer was requested to visit the infected district as early as possible, which he agreed to do.

It was decided to hold a Grape-Growers' Convention this fall, probably in August, the exact time and all details being left to the judgment of the Chief Executive Officer.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING JUNE 4, 1889.

- 404,461.—VEHICLE—H. Arenberg, Edgewood, Cal.
- 404,517.—FRUIT-STONER—Biggs & Leach, San Buenaventura, Cal.
- 404,481.—DEVICE FOR OILING WHEELS—F. W. Harris, Napa, Cal.
- 404,623.—SAW-SWAGING MACHINE—T. B. Hite, Seattle, W. T.
- 404,494.—FOLDING VEHICLE—Jos. McBoyle, Oakland, Cal.
- 404,463.—CHECK-REIN HOOK—G. W. Moliere, Ocean View, Cal.
- 404,727.—FLY-TRAP—J. E. Packard, Mendocino, Cal.
- 404,496.—VEHICLE—Wilfred Page, Penn's Grove, Cal.
- 404,554.—CHISEL—T. H. Palmer, San Bernardino, Cal.
- 404,436.—NECKTIE FASTENER—J. Reidl, Lewiston, I. T.
- 404,573.—STEAM ENGINE—A. H. Straub, Los Angeles, Cal.
- 404,509.—VALVE GEAR FOR COMPOUND ENGINE—J. C. H. Stut, S. F.
- 404,511.—FIRE-LADDER EXTENSION—Jas. W. Tully, S. F.
- 404,580.—SLOT-MAKING ATTACHMENT FOR BOLT-HEADING MACHINES—S. Uren, Sacramento, Cal.

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

Excursion to Ukiah.

EDITORS PRESS:—The recent excursion to Ukiah via North Pacific Railway was one of the most enjoyable and successful events of the year. The fare was placed at \$2 for the round trip, a distance of 120 miles. Eleven hundred people, made up of families and a goodly number of ladies, embarked on the steamer Tiburon at the foot of Market street. At Tiburon, two trains were made up and the excursionists sped over the road through tunnels and valleys at a high rate of speed, only stopping for water.

The Petaluma valley is 16 miles long and about 10 miles wide and one of the richest and most productive in the State. From Santa Rosa, the county seat of Sonoma county, northward through what is known as Russian River valley, there is one succession of villages, lovely homes and small farms under a high state of cultivation, surrounded by orchards, vineyards and fields planted in corn, vegetables and cereals. As you approach the attractive village of Cloverdale it appears to be walled in on the east, west, and north by great gray hills covered with bushes, stunted oaks and craggy rocks. From Cloverdale to Ukiah, a distance of 30 miles, the route is one of the most romantic, picturesque and interesting to the traveler in the United States. The railroad follows the Russian river about 10 miles of the distance, and considering the topography of the country, it may be classed as one of the triumphs of modern engineering.

The Ukiah valley in Mendocino county is walled in by high mountain ridges, the valley being from one mile to five miles broad, and the fertility of this section has become noted in the production of hops. This part of our State has been isolated from the traveling public, and the residents led a quiet and happy pastoral life, until the steam-whistle a few months since seemed to awaken them from their Rip Van Winkle slumber. Ukiah City is laid out on a plateau, and has special advantages in climate, fine water, and a rich country adjacent thereto that has the reputation of being one of the best fruit belts in the State. The Palace hotel, a large brick structure, kept by Mr. I. N. Stapp, is the headquarters for the stages that go out from this place, of which there are three lines, owned by Messrs. Force & Curtis, viz.: Ukiah and Mendocino, daily, except Sunday, fare \$5; Ukiah and Hydesville, 35 hours without stopping, daily, fare, \$15; Ukiah and Blue Lakes and Lakeport, daily, except Sundays, fare \$2. On this occasion, as these fine turnouts swung in front of the Palace hotel, the veteran Jehus reminded the excursionists of old times in California. It was hot, 96° in the shade, and the celebrated Vichy Springs, three miles distant, were well patronized.

The management was under Mr. W. H. Menton, general traveling passenger agent for the N. P. R. R., and no accidents or hitch occurred during the day. There were general expressions of pleasure and satisfaction among the excursionists, and a desire to take another ride to the city of Ukiah. This great concourse of people was landed at the foot of Market street at 8:50 P. M.

J. C. H.

Special Thanks.

D. W. Coquillett, the noted Government entomologist, renewing his subscription to this paper, adds: "I feel that I also owe you a special vote of thanks for making the Rural Press so uniformly interesting and instructive."

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

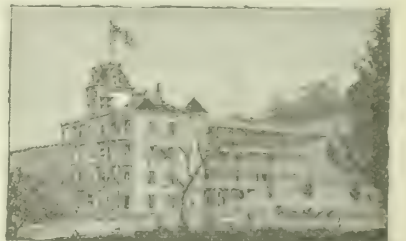
J. C. HOAG—San Francisco.
R. G. BAILY—San Francisco.
W. E. BRICK—San Francisco.
WM. H. COOK—Fresno and Santa Cruz Cos.
W. W. TIERHOLZ—Central California.
H. G. PARSONS—Southern California.
GEO. WILSON—Sacramento Co.
FRANK S. CHAPIN—Colusa and Lake Cos.
E. H. SCHAEFFLE—Calaveras and Tuolumne Cos.
DR. W. F. DRAKE—Sonoma, Cal.
CHAS. DUGAN—Stanislaus Co.
A. F. JEWETT—Tulare Co.
CHAS. F. BLACKBURN—Idaho.
R. G. HUSTON—Montana.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

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All Summer Complaints, Gramps, Colic, &c. &c. are always cured by Perry Davis' Pain-Killer.

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At Crystal Springs, St. Helena, Cal.

This delightful Resort offers unrivaled advantages to Tourists and all classes of Invalids, both for Winter and Summer. It is situated on the southwestern slope of Howell Mountain, 500 feet above and overlooking the noted and beautiful Napa Valley, and 2 1/2 miles from St. Helena. It is noted for its Pure Water, Dry Atmosphere, Clear and Balm Sunshine. Even Temperatures, Mild Breezes, and the absence of high winds.

THE RATIONAL TREATMENT

By all known remedial agents is employed in this Institution. With these natural and artificial advantages, pleasant and desirable surroundings, thorough and judicious treatment, and wholesome diet, most invalids who avail themselves of these agreeable facilities, rapidly recover. Patients have the care of a regularly graduated Physician of experience, who is assisted by well-trained and courteous gentlemen and lady assistants.

All Invalids and Tourists will be courteously received and kindly cared for. For circulars and further particulars, address as above.

Passengers with their baggage taken to the Retreat (by Retreat team) for 50 cents.

Telephone connections with Retreat.

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Rheumatism, St. Vitus Dance, Dropsy, Catarrh, Etc.

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Board, \$10 to \$14 per week.

ROUTE FROM S. F. Take morning train to Napa, Napa county, Cal. Take stage to Middletown, fare 2; and proceed to Anderson Springs, where the stage to Anderson, 6 to San Francisco, 2 P. M. Fare to S. F. 10; address, Middletown, Lake County, Cal. Write for further information.

J. ANDERSON, Proprietor.

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ANDREW SMITH, Redwood City, Cal.; see adv't.

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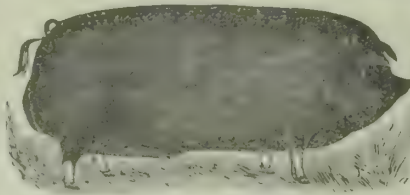
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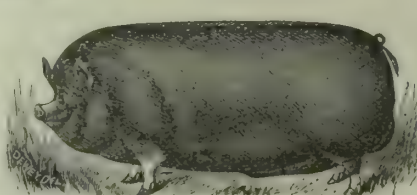
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SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with records better than 2:30, and the dams of 5 with records from 2:18 to 2:28.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of Favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp. Emancipation. Third dam by Brestrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbrige, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 406, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:28.

First dam Alla, record 2:32 (the dam of Spartan, 2:24), by Almost, sire of Fanny Witherspoon, 2:10; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brighnoll, a son Mambino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:28. Third dam by Cripple, a son of Medoc (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore, sire of Ryadyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trinkett, 2:24, and Stamboul, 2:14; Almost by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:03, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 2:26, heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Nisgara (sire of Cobb, 2:31, double team record, 2:29), and of Lady Hoss, trial, 2:18. Said to be by Mambino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

CHARLES DERBY will be limited to 10 approved mares. Terms, \$100 for the season.

CLEVELAND BAY.

BARON HILTON.

No. 584 E. C. B. Stud Book.

Vol. 1, American C. B. S. B.

Winner of Sweepstakes at Golden Gate Fair, 1888, and Sweepstakes open to all breeds and ages at California State Fair, 1888.

Sired by Luck's All (188).

First dam by Sportman (291).

Second dam by Luck's All (188).

Third dam by Cardinal (47).

Fourth dam by Emulator (103).

Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

TERMS, \$25 for the season.

ROYAL STUDLEY.

No. 68, Vol. 1, A. C. B. S. B.

Foaled 1883.

Winner first premium Illinois State Fair, 1885; first at Contra Costa Fair, 1886; first at Sonoma County Fair, and first at the Sonoma, Marin and Napa, and Solano District Fairs, and second at Golden Gate Fair in "all work" class, 1887, and first at Golden Gate and first at California State Fair, 1888.

Sired by Young Candidate, winner first premium at Gt. Yorkshire, beating 20 others.

First dam Whalebone (365), first premium Gt. Yorkshire.

Second dam by Luck's All (188).

Third dam by Summercock (302).

Royal Studley is a very handsome, bright bay, 16½ hands high, weight 1500 pounds, with superior style and action.

TERMS—\$25 for the season.

NAPOLEON 754, E. C. B. S. B.

Foaled 1885. Imported 1887.

Sired by Luck's All 189; he by Luck's All 188, by Cardinal 47; he by Emulator 103.

First dam Daisy by Luck's All 188.

Second dam by Providence 243; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teesdale, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

TERMS, \$25 for the season.

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ATTENTION!

ADMINISTRATOR'S SALE
By order of Probate Court, in the matter of the Estate of JAMES ROBERTS, Deceased.

I will sell at private sale to the highest bidder, for cash, on or after May 1, 1889, at the Ranch in Irvington, or at my office in Oakland, 946 Broadway, Alameda Co., Cal., the entire flock of Thoroughbred French Merino Sheep, consisting of 280 (Two hundred and eighty) Ewes, 79 (seventy-nine) Bucks, and 180 (one hundred and eighty) Lambs. These Sheep are the get of the original flock imported by Robert Blacow of Centerville. Mr. Roberts, as foreman, having charge of the flock for several years prior to Mr. Blacow's death, after which he became the owner of the entire flock, which he has kept purely for stock purposes.

All interested in Thoroughbred Sheep should be familiar with this flock, which has become famous under the care and management of Mr. Roberts; always receiving first premiums, having been sold to Europe, South America and all parts of the United States; individual members having repeatedly sold for from \$500 (five hundred) to \$1500 (fifteen hundred) each. Sheep Men should seize this opportunity to secure some, as they must be sold to settle up the Estate. Address, JAMES STANLEY, Administrator Estate J. Roberts, Deceased, Mission San Jose, or 946 Broadway, Room 17, Oakland, Cal.

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S. H. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 19, 1889.

The past week witnessed continued activity in garden truck and fruits, with prices, as usual, governed from day to day by the receipts. Harvesting is under full headway. All returns continue favorable for large crops of cereals. At the East and abroad the wheat market has fluctuated to some extent, being largely controlled by weather influences. The following is to-day's cablegram:

LIVERPOOL, June 19.—Wheat—Steady. California spot lots, 6s 6½d to 6s 9½d; off coast, 33s 9d; just shipped, 33s 9d; nearly due, 33s 9d; cargoes off coast, nothing offering; on passage, quiet; Mark Lane wheat, few buyers in market; French country markets, quiet.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	June.	July.	Aug.	Sept.	Oct.	Nov.
Thursday....	68½d	69d	68½d	68½d	69d	69d
Friday.....	68½d	69d	68½d	68½d	69d	69d
Saturday....	68½d	69d	68½d	68½d	69d	69d
Sunday.....	68½d	69d	68½d	68½d	69d	69d
Monday.....	68½d	69d	68½d	68½d	69d	69d
Tuesday....	68½d	69d	68½d	68½d	69d	69d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday....	33½d	33½d	33½d	Quiet.
Friday.....	33½d	33½d	33½d	Steady.
Saturday....	33½d	33½d	33½d	Improving.
Sunday.....	33½d	33½d	33½d	Quiet.
Monday.....	33½d	33½d	33½d	Steady.
Tuesday....	33½d	33½d	33½d	Steady.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	June.	July.	Aug.	Sept.	Oct.
Thursday.....	84	82½	82½	82½	82½
Friday.....	84	82½	82½	82½	82½
Saturday.....	84	82½	82½	82½	82½
Sunday.....	84	82½	82½	82½	82½
Monday.....	84	82½	82½	82½	82½
Tuesday.....	84	82½	82½	82½	82½

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	June.	July.	Aug.	Sept.
Thursday.....	79	77½	75½	75
Friday.....	78½	76	76	76
Saturday.....	79	76	76	76
Sunday.....	79	76	76	76
Monday.....	79	76	76	76
Tuesday.....	79	76	76	76

NEW YORK, June 19.—Wheat—84½c for cash, 82½c for July, 82½c for August, 83c for September and 86c for December.

Foreign Grain Review.

LONDON, June 18.—The *Mark Lane Express* in its review of the British grain trade for the past week, says: Sales of English wheat during the week were 41,765 quarters at 28s 4d. Off-coast trade is slow since Whitsuntide. A sale of California wheat at 33s 4½d indicates steadiness. Much English wheat is offered under 30s. Russian is 15, Indian 6d and American Red 3d dearer. Flour is dull. May arrivals of Chilean and California have gone to consumers. Light oats are firm; heavy, flat. Corn is 3d lower.

Wheat Market.

NEW YORK, June 16.—Wheat is active and steady on reports of better markets and crop damage abroad. A cable to Henry Clews says: "Wheat in Liverpool is advancing. Sellers are holding off expecting higher prices. Heavy rains are reported. England will need 15,000,000 bushels of wheat before September 1st, which will have to come from America." Russian news has been one of the main factors of the market of late. It is alleged that the wheat crop there is likely to be over 20 per cent short of last year, or practically 51,000,000 bushels less than last year. An advance statement of the exports of breadstuffs during May, 1889, prepared by the Bureau of Statistics, shows that the principal Pacific Coast custom districts, Puget Sound, Willamette and San Francisco, shipped 1,626,894 bushels of wheat, 100,000 more than New York, and far above any other port.

California Fruits East.

NEW YORK, June 13.—California fruit contained in Central Pacific car 10,596 was auctioned to-day: 170 boxes Royal Ann cherries brought from 45c to \$2.15, only one small lot, 50 boxes, going at the first figure; 467 boxes Republican cherries brought from 85c to \$2.10.

The contents of the Union Pacific car 40,601 were sold as follows: 573 half-crates Royal apricots from 95c to \$1.50; 46 boxes Royal apricots at \$1.15; 96 boxes Alexander peaches from \$1.15 to \$1.60; 39 half-crates Red plums at \$1.30; 41 half-crates apricots at 95c; 7 half-crates plums at \$1.30 to \$1.75; 170 boxes Royal Ann cherries from 80 to 90c.

NEW YORK, June 14.—In the California fruit auction sales to-day 880 half-crates of Royal apricots were sold at 90c to \$1.70, and a small lot of plums at \$1.40. A small lot of peaches were sold at 25c.

NEW YORK, June 17.—The latest arrivals of California fruit are in poor order. This accounts for the prices obtained to-day at the auction at the Fruit Exchange. Union Pacific car, No. 40,609, marked California Fruit Union: To Frank H. Buck, 425½ crates of Royal apricots, from 65 cents to \$1.10; to Frank B. McNeill, 20 ditto, at \$1.10; to L. W. & F. M. Buck, 101 ditto, at \$1; to W. R. Strong & Co., 68 ditto, at \$1.25; to Frank H. Buck, 30 boxes peaches, at 75 cents; to F. Herbert Buck, 71 ditto, at \$1.05; to W. Smith, 15 ditto, at \$1.20; to L. R. Strong & Co., 64 ditto, at \$1.05; to L. W. & F. M. Buck, 14 boxes Royal Hative plums, at \$1.30; to W. W. Smith, 24 ditto, at \$1.90; to W. R. Strong & Co., 15 ditto, at \$1.15. Oregon and California car, No. 1004, consigned by Fruit-Growers' Association of Vacaville: 434 half-crates Royal apricots, at 95c to \$1.40, to O. Garlich; 129 ditto, at \$1, to R. H. Chinn; 100 ditto, at \$6.50, to Robinson Bros.; 14 ditto, at \$1, to Wm. H. Buck; 43 ditto, at \$1.70, to Fruit-Growers' Association; 3 boxes peaches, at \$1.15, to O. Garlich; 2 ditto, at \$1.15, to O. Garlich; 6 half-crates Royal

Hative plums, at \$1.25, to Fruit-Growers' Association, and 53 ditto, at \$2.20, to ditto.

CHICAGO, June 13.—To-day's sales by auction were: Three carloads of cherries, peaches, apricots and plums. Cherries sold at \$1.80 to 75c; peaches at \$1.85 to \$1.05; plums at \$4.50 to 55c, and apricots at \$1.15 to 50c. The cherries were mostly in poor order.

CHICAGO, June 14.—To-day's sales by auction were: Two carloads of peaches, apricots and plums. Peaches sold at \$1.70 to \$1.15; apricots at \$1.05 to 55c; plums at \$3.70 to \$1.35. A good many apricots were in bad order to-day.

CHICAGO, June 17.—To-day's sales by auction were two carloads of apricots, peaches and plums. The apricots sold at 80 to 55 cts., peaches at \$1.20 to 95 cts., plums at \$3.10 to \$1.85. The market is very weak.

CHICAGO, June 18.—The agents of the California Fruit Union sold two carloads of fruit to-day as follows: Peaches, 300c to \$1.05; apricots, 55c to 85c; cherries, 50c to 60c; Bartlett, \$4.50. Peaches and cherries were in very bad order.

Eastern Wool Markets.

NEW YORK, June 16.—Wool—Most operators concede the firmness of the present situation, with a very solid front shown among producers in all localities. Manufacturers, too, have of late exhibited not only increased interest, but actual investing intentions so that sellers experience no special difficulty in retaining the major portion of advantage. Foreign advices are generally strong. A movement was reported here during the week. Sales include 15,000 lbs. spring California at 18¢ to 20¢; 35,000 lbs. do do, 12,000 scoured do, 5,000 lbs. Territory, 6,000 lbs. Eastern Oregon.

Mark Lane Express, May 28, says: At the present time manufacturers are experiencing exceptional demands on their resources, and they are encouraged to anticipate even further development of trade by reason of the extraordinary activity which characterizes the iron trade and the vast contracts which have been entered into by Clyde and Tyneside shipbuilders. Let us give one or two instances of the improved condition of trade—and these facts we take to be the grounds on which woolen and worsted manufacturers rest their hopes as to increased business in the future. At the present time the Clyde shipbuilders have on hand over 150 vessels of an aggregate of nearly 300,000 tons. On the Tyne there are 80 vessels building, and on the Wear, 60. It is interesting to note the quarters from whence this gratifying multiplicity of employment emanates. The vessels now being constructed represent about 80,000 tons for Germany, 17,000 for Portugal, 10,000 tons each for France, Norway and our colonies, 7,000 tons for Belgium, 9,000 for South America, 5,000 for the United States, and so on. With these orders in hand, and the prospect of an early distribution of Government orders in connection with the strengthening of the Navy, woolen manufacturers may well be confident of future trade prospects. As the result of this feeling among wool consumers, London importers, merchants and brokers are naturally sanguine of animated competition at the ensuing sales, and look with perfect confidence to even a higher range of values being reached than were current at the May sales. To a certain extent both buyers and sellers are justified in entertaining these cheery assurances, for it is over ten years since shipbuilding was so brisk and workmen were so highly remunerated for their labor. But London wool merchants do not only look for an extensive consumption at home; they anticipate a very large demand from France. They have had already communications to the effect that the Exhibition has had a magical influence on the woolen and worsted trades, and as the season advances a very much larger business will be experienced.

California Wine.

NEW YORK, June 16.—The *Wine and Spirits Circular*, the organ of the wholesale Liquor Dealers' Association, has this to say: "Trade in California wines in the East is steadily growing. There are many people of wealth and taste in this city who buy California wines for home use. Many of these people have been in California, visited the vineyards and learned more of their wines from personal inspection. But the bulk of California wines is used by the middle classes, who desire good wine at reasonable prices. Though not fully equal to the best French wines, good California wine compares favorably with foreign wines. Most of it is shipped by way of Cape Horn. The four or five months' trip around Cape Horn improves the wine provided it is warm. Dry white and red California wine retails in this city at from 85 cents to \$1.50 and higher per gallon, and sweet wines at from \$1.25 to \$3 and higher. Prices are lower now than they have been for years."

Miscellaneous.

All prime hogs show hardening values. Best washing 1½ cent better; good Red Pacifics, 16¢ to 18¢; poor, 13¢ to 15¢. Many old lots were cleaned up at 5½¢ to 6¢ for 87s; 3¢ to 4¢ for '86s. Exports from New York for the season to date are \$7,400 bales.

New honey would sell at 6½c.

Samples of California beeswax are shown fully up to the standard required at the East.

Lima beans are strong at \$3.40; small white, \$1.70; the latter slow.

Fruits—Pacific Coast dried—Though the market is not characterized by important action, yet in jobbing quantities there is a fair distributive trade going on, and as a rule at well-sustained prices. Turkish prunes continue firm and in fair demand. Figs are not wanted, and for nuts the inquiries are limited to jobbing quantities.

Raisins—California, L. U., two crown, \$1.40 to 1.60; California, L. U. three crown, \$1.75 to 2.10; California, London, three crown, \$2 to 2.24.

Lemons are held rather high, but dealers report their distributive trade as yet light, though they count upon an early increase in consumptive requirements.

Oranges are in better demand, and the market is stronger in tone.

Local Markets.

BAGS—The market has declined under freer offerings until 7½c is touched for fair-sized parcels—jobbing by the bale or two at 7½¢ to 8¢. The cause for the decline is reported to be the free offerings of outside holders who have become nervous at the inactive demand. Farmers naturally would like to see them still more nervous.

BARLEY—The market shows growing strength

under a freer demand and farmers more confident. In futures, trading has been active at hardening prices. The following are to-day's Call Board sales:

Morning Session: Seller 1889, new—100 tons, 72½c; 200, 72½c to ctt. Afternoon Session: Buyer 1889—100 tons, 80½c. Seller 1889, new—300 tons, 72½c; 100, 72½c. Buyer season—100 tons, 87c to ctt.

BUTTER—The market is overstocked with fair to good, but gilt-edged is scarce and wanted at full prices. The demand is quite light; said to be about 25 per cent less than at this time in 1888. It is a source of speculation among dealers what is to be done with the large supply of poor to fair. The quantity pickled is said to be largely in excess of former seasons.

CHEESE—The market is strengthening under lessened offerings by outside parties. The stock now here is well concentrated and held for better figures. The demand is good.

EGGS—Receipts are increasing, but the demand is still good.

FLOUR—The market is lower under free offerings.

WHEAT—The sample market for immediate delivery is very strong. It is claimed that quite a number of vessels' lay days are either up or about up, and to save expenses, exporters will pay an advance for wheat on spot or for immediate delivery. For July delivery \$1.27½ is bid for No. 1 white shipping and \$1.25 for August delivery. In futures trading the past week was fairly active, with at times quite attractive turns noted. The following are to-day's Call Board sales:

Morning Session: Buyer 1889—3200 tons, \$1.33½; Buyer 1889, after August 1st—100 tons, \$1.32½; 300, \$1.33½; 200, \$1.33. Seller 1889, new—1000 tons, \$1.25½. Buyer season—300 tons, \$1.39; 100, \$1.39½ to ctt. Afternoon Session: Buyer 1889—500 tons, \$1.33; 400, \$1.32½; 200, \$1.33½. Buyer 1889, after August 1st—100 tons, \$1.32½ to ctt.

	Buyer Season.		Seller 1889.		Buyer 1889.	
	H.	L.	H.	L.	H.	L.
Thursday.....	71½	70½	71½	70½	79½	79½
Friday.....	71½	70½	71½	70½	79½	79½
Saturday.....	71½	70½	71½	70½	79½	79½
Monday.....	71½	70½	71½	70½	79½	79½
Tuesday.....	71½	70½	71½	70½	79½	79½

	S. S.		B. S.		S. S.		B. S.	
	H.	L.	H.	L.	H.	L.	H.	L.
Thursday.....	133½	132½	133½	132½	133½	132½	133½	132½
Friday.....	133½	132½	133½	132½	133½	132½	133½	132½
Saturday.....	133½	132½	133½	132½	133½	132½	133½	132½
Monday.....	133½	132½	133½	132½	133½	132½	133½	132½
Tuesday.....	133½	132½	133½	132½	133½	132½	133½	132½

[COMMUNICATED.]
Market Information.

Produce Receipts.

Receipts of produce at this port the week ending June 19th, were as follows:

Flour, qr. sks....	38,443	Middlings, sks....	3,851
Wheat, cts....	103,897	Alfalfa, .....	...
Barley, ".....	22,873	Chicory, bbls....	...
Rye, ".....	662	Broomcorn, bbls....	...
Oats, ".....	1,994	Hops, bbls....	38
Corn, ".....	1,618	Wool,	3,871
Butter, ".....	947	Hay, tons....	2,444
do bxs.....	1,803	Straw,	258
Cheese, cts....	942	Wine, gals....	253,380
do bxs.....	31	Brandy,	8,630
Eggs, doz.....	15,892	Raisins, bxs....	50
Beans, cts....	8,161	Honey, cs....	87
Potatoes, sks....	22,461	Walnuts, sks....	...
Onions, ".....	4,118	Flaxseed, sks....	...
Bran, sks.....	10,633	Mustard, sks....	...
Buckwheat, sks....	...	...	...

Cereals.

Harvest advices continue favorable to a large output. It now looks as if the estimates of from 1,800,000 to 2,000,000 tons will be fully realized, notwithstanding many localities report a half crop. The grade, taken as a whole, is better than for several years past, which ought to cause new crop No. 1 white shipping to command relatively more than the No. 1 white shipping season just drawing to a close. The barley output is large to the acre, but there is a decreased acreage. The buckwheat, rye and oat output will be about an average. The corn crop promises to be above an average.

From Oregon and Washington the writer's advices continue favorable for a very large output of all kinds of cereals, with the general grade good.

The wheat market the past week for sample parcels has held to strong prices, with buyers fighting against an advance, and holders indifferent, except at full asking prices. There is no doubt but buyers have been compelled to pay an advance over last week's quotations, and are even yet to secure desirable parcels, necessitated to pay an advance on bids. In new, some trading for July is reported on the basis of \$1.27½ for good white shipping. The general feeling appears to prevail that farmers, as a rule, will prefer storing to selling.

In barley, there has been more pronounced buying of the better grades. The buying is said to be chiefly in the interior and in the interest of exporters, although speculators and home dealers are operating. At current low prices, the cereal is looked upon as a good investment. Walla Walla advices report the outlook of the very best for a good crop and a good quality.

Oats have been fairly steady, under a moderate demand and lighter receipts. The incoming crop on this coast promises to be above an average and of good quality, too.

Corn has not shown any material change. The general feeling with dealers appears to be bearish.

Rye continues in buyers' favor.

Feedstuff.

Ground barley is firmer, with a strong tone. The demand is improving.

Bran and middlings are without essential change. The demand is increasing and so is the supply.

In hay, the movements continue to be of a bearish character for all grades, except strictly choice. Even the latter appears to be shading off. More

new is offering, which begins to be given preference by large consumers. In the present condition of the market, reliable quotations are hard to give, for prices will fluctuate from day to day, according to receipts. Buyers, particularly at this time of the year, always take advantage of sellers' necessities.

Fruit.

Heavy receipts of apricots and canners holding off forced sellers to the former's terms. The low prices of 1 to 1½c (sales of extra choice well-selected for standard fruits have been made at the latter prices) have had the effect of cleaning up each day's receipts. The buying is on the basis of 1½¢ to 1¼¢ per lb., with 1¢ to 1½¢ as the extremes. Canners are still in the market for blackberries, strawberries, cherries and currants. The latter are reported to be scarcer, with prices creeping up. Gooseberries are higher and scarcer.

Several crates of cherries destined for New York and sent from San Jose, were transferred at Niles one day recently. The unusual fact regarding the shipment was that each cherry was separately wrapped in fine tissue paper after the manner of fine varieties of oranges.

The quality of both pears and peaches is improving, but as receipts enlarge, prices shade off. Plums are coming in more freely, with several varieties in the market.

It is very difficult this season to obtain correct information regarding contract prices paid by canners to orchardists. Why this is so, it is hard to say. It looks as if this is done so as to keep down competitive buying and good prices being paid to orchardists.

In dried fruits, the market shows no material change. The stocks of old are well cleaned up, and in consequence new will come in on a comparatively bare market. The low prices toward the close of the season stimulated the consumptive demand in distributive centers east of the Rocky mountains, which will materially create a larger demand for the coming season's crop. It now looks as if the quantity that will be dried will be larger than last year, which was more than ever before.

Raisins are without any special features to report. The market is about bare, with from three to four months yet before new come in on the market.

Live-Stock.

The market for bullocks shows a steadier tone for handy sized that cut up without much wasting. Mutton sheep are doing better, owing to more driving to the mountain valleys. Veal are also improving. Hogs are still weak, with the demand confined to the block and Chinamen's wants. In horses there is nothing new to report. The inquiry is said to be better for single-footers and general utility, with a fair inquiry for matched teams. It is claimed that there will be a better inquiry soon for medium to large draft horses.

The market for dressed cattle is quoted as follows: To obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent.

HOGS—On foot, grain fed, 5½¢ to 6¢ per lb.; dressed, 8¢ to 9¢ per lb.; stock hogs, 5¢ to 6¢ per lb.

BEEF—Stall fed, 6¢ to 6½¢ per lb.; grass fed, extra 5½¢ to 6¢ per lb.; first quality, 5½¢ to 5¾¢ per lb.; second quality 4½¢ to 5¢ per lb.; third quality, 3½¢ to 4½¢ per lb.; bulls and thin cows, 2¢ to 3¢ per lb.

VEAL—Small, 7¢ to 8¢ per lb.; large, 5½¢ to 7½¢ per lb. MUTTON—Wethers, 5½¢ to 6¢ per lb.; ewes, 5¢ to 5½¢ per lb.; lamb, spring, 7½¢ to 8½¢ per lb.

Vegetables.

Potatoes have held steady at full prices, with a continued improvement reported in the quality. The call is both for near-by and distant orders.

Onions continue to meet with a good demand. Good keepers are wanted at a slight advance. Silver skin has put in an appearance.

In garden truck there is a free movement, with peas, beans and summer squash doing better under lighter receipts. Cucumbers and tomatoes are weak at lower prices, under freer receipts. Picklers are taking the smaller cucumbers, while canners are preparing for tomatoes. In other vegetables there are no particular changes outside of an easier feeling in green corn.

Miscellaneous.

Poultry has held barely steady throughout the week. Choice, young, well-conditioned, large-sized fowls are wanted, and command an advance on quotations.

Hops are scarce, with a good inquiry reported for choice. Growing crop advices continue favorable. Growers are not inclined to accept buyers' bids for new crop hops.

The following are the leading shipments in pounds, by the overland railroads for the month of May: Beans, 325,070; green fruits, 6,596,000; dried fruits, 284,050; hops, 248,210; mustard seed, 20,400; raisins, 223,480; wool in grease, 2,020,770; scoured, 154,590; pulled, 86,550. Wine, gallons, 497,905. The wool market continues active at full prices, with at times desirable clips fetching a slight advance on outside quotations. The advance in prices this year over those of 1888 is about 10 per cent, which is equal to the prices that obtained in 1887. The demand this year is chiefly for medium-fine, which fetch proportionally more than fine grades.

From the *Commercial News* of June 19, the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	237,140	315,293
On the way to neighboring ports 29,013		116,093
In port, disengaged.....	10,991	47,103
In port, engaged for wheat....	54,052	

Domestic Produce.

Table with multiple columns listing various domestic produce items such as Beans and Peas, Broom Corn, Chioory, Dairy Produce, Eggs, Flour, Fruit, and Vegetables, along with their respective prices and grades.

PACIFIC COAST WEATHER FOR THE WEEK.

Table showing Pacific Coast weather for the week, including dates (June 12-18) and weather conditions for various locations like Portland, Eureka, Red Bluff, Sacramento, S. Francisco, Fresno, Keeler, Los Angeles, and San Diego.

EXPLANATION.—Cl for clear; Cy, cloudy; Fr, fair; Fy, foggy; Cm, calm; — indicates too small to measure. Temperature, wind and weather at 12 M. T indicates trace of rainfall. Observations taken at 5 P. M. instead of 12 M.

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- 22.—Needle Work, by Jennie June; 12 pp., 200 illustrations...\$0.25
- 23.—Ladies' Fancy Work, by Jennie June; 152 pp., 700 illustrations...\$0.25
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which are unequalled for their strength, durability, and most powerful cutting improvements, including the latest machinery and specialties.

Advertisement for Dewey & Co. Patent Solvents, featuring the company name in large stylized letters and text describing their products and services.

Advertisement for California Military Academy, Oakland, Cal., featuring an illustration of the academy building and text about its programs and location.

Advertisement for THREE WONDERFUL SEWING MACHINES, featuring an illustration of a woman sewing and text about the Singer Automatic, Vibrator, and Oscillator models.

Baling Hay.

In order to test the difference in Bale Rope, about which there is much discussion, we to-day used one coil Eastern made rope, 59 lbs, which baled 67 bales hay, weighing 8 1/2 tons, taking about 7 lbs rope per ton, and one coil of TUBBS CORDAGE CO.'S make, 57 lbs, which baled 88 bales, weighing 11 1/2 tons, taking 5 lbs per ton. These facts prove that it takes about 40 per cent more of Eastern rope to bale a ton of hay than it does of the Tubbs Rope. We used six strands to a bale and not a strand of the Tubbs Rope broke.

Advertisement for WHITTAKER'S BONELESS SHOULDERS, featuring an illustration of a ham and text describing the product as a palatable part of the hog.

Advertisement for CHICKERING PIANOS, CONOVER BROS. PIANOS, F. W. SPENCER & CO., featuring text about piano sales and agency locations.

Advertisement for OSTRANDER & SONS, REAL ESTATE OFFICE, featuring text about real estate services in Merced, Cal.

Advertisement for ALLEN SPRINGS, NEW MANAGEMENT, featuring text about the resort and its location.

Advertisement for The Singer Manufacturing Co., featuring text about their products and agents, including Ricord's Restorative Pills.

California Products at Chicago. CHICAGO, June 19.—California green fruits were a shade firmer under somewhat smaller receipts and the influence of better weather. Cherries, 10-lb boxes, sound, \$1@1.20; Peaches, 20-lb cases, \$1.25@1.50; Apricots, 20-lb cases, \$1@1.25; Cherry Plums, 20-lb cases, \$1.25@1.50; Plums, 20-lb cases, Royal Hative, \$2.25; Pears, 7 box, \$4.50@5. Oranges were steady and firm; there is only a moderate supply on the market and the demand is fair. Fancy mountain fruit, 7 box, \$4@5; Los Angeles Duarte, smutty, \$3@3.50. Hops are firm and are in but limited supply. The demand is moderate for choice grades, but otherwise it is light. Choice Washington Territory and Oregon, 25c; Pacific Coast, prime to choice, 20@23c. Beans—For several days the market has been without new developments; there continues a light business at late prices, and the market is notably steady; offerings remain small, with very few beans coming in.

THE walnut crop of the Santa Ana valley promises to be very large. The trees are said to be loaded with nuts.

Useful Facts.

The following list of agricultural districts in California, as at present constituted, is taken from the "Legislative Guide," compiled by Donald Bruce and just issued from the office of the *Political Record* in this city. This pamphlet, by the way, is packed full of information (condensed and handy for reference) in regard to our State Senators, Assemblymen and other officials, with tables showing the fate of all the bills introduced at the last session of the Legislature—which passed and were approved; which were vetoed; which failed in either house—etc.

Mr. Bruce has done a good work in reducing matter so varied, vast and complicated to a form so compact and accessible; and we hope the little book will meet with sales enough to reward him.

Agricultural Districts.

1. San Francisco, Alameda.
2. San Joaquin, Stanislaus.
3. Butte, Colusa, Tehama.
4. Fresno, Kern.
5. Santa Clara, San Mateo.
6. Los Angeles, Ventura.
7. Monterey, San Benito.
8. El Dorado.
9. Humboldt, Del Norte.
10. Siskiyou, Trinity.
11. Plumas, Lassen, Modoc, Sierra.
12. Mendocino, Lake.
13. Sutter, Yolo, Yuba.
14. Santa Cruz, except SE of line beginning at junction of Aptos creek and Monterey bay, NE to Santa Clara Co.
15. Tulare, Kern.
16. San Luis Obispo.
17. Nevada.
18. Alpine, Inyo, Mono.
19. Santa Barbara.
20. Placer.
21. Merced, Mariposa, Fresno.
22. San Diego.
23. Contra Costa.
24. Santa Cruz, all not included in Dist. 14.
25. S. Iano, Napa.
26. Sacramento, Amador.
27. Shasta.
28. San Bernardino.
29. Calaveras, Tuolumne.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3.00 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

CONNECTICUT is a great oleomargarine manufacturing State. In that State and Massachusetts more of the bogus butter is manufactured than in any other of the Eastern States. But hereafter the "land of wooden nutmegs" will quit being the "land of ball butter," as well. The Legislature has passed a law prohibiting the manufacture of oleo in imitation of butter, and consequently the manufacturers are giving up the business. This is another proof of the fact that the only hold the stuff ever had upon the market was its resemblance to and being sold for butter.—*Jour. of Agriculture.*

THE HONEY LAKE WATER CO. has incorporated for the purpose of distributing the waters of Skidaddle creek, in Lassen county, for irrigation, etc. Directors—W. A. Clark of Berkeley, S. W. Fuller, G. D. Cooper, J. B. Jardine and D. E. Hayes of S. F. Capital stock \$50,000, divided into 50,000 shares, of which 30,000 have been subscribed by 26 stockholders.

"FARMER" AND "AGRICULTURIST."—"Uncle Jerry Rusk" not long ago remarked: "There is a difference between a farmer and an agriculturist. A farmer is a man who has a piece of land and makes his living off it. An agriculturist is a person who makes money in some other way and spends it on his farm."

Successful Patent Solicitors.

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OF CALIFORNIA,
SAN FRANCISCO, CAL.
INCORPORATED APRIL, 1874.

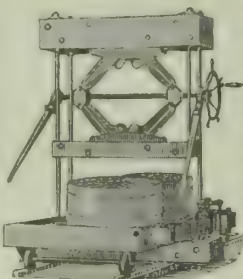


Authorized Capital.....\$1,000,000
Capital paid up in gold coin..... 624,160
Reserved Fund..... 40,000
Dividends paid to Stockholders.. 515,620

OFFICERS.

A. D. LOGAN.....President
I. C. STEELE.....Vice-President
ALBERT MONTPELLIER.....Cashier and Manager
FRANK McMULLEN.....Secretary
General Banking. Deposits received, Gold and Silver.
Bills of Exchange bought and sold. Loans on Wheat and country produce a specialty.
Jan. 1, 1888. A. MONTPELLIER, Manager.

Worth's Patent Combined Screw and Toggle Lever Wine, Cider and Olive Press.



Using two baskets so that while one is under the press the other can be emptied and filled ready to move under the press as soon as the first basket is pressed. First Premium awarded at all fairs wherever exhibited. Parties desiring a press combining Power, Speed and Ease to Handle, can see them at the wineries of the following Parties who have purchased and are using them at their wineries; Arpad Haraszthy & Co., San Francisco; Prof. Hilgard, University of California, Berkeley; J. B. J. Portal, San Jose; I. De Turk, Santa Rosa; Paul O. Burns' Wine Co., San Jose; Geo. West, Stockton; Kate F. Warfield, Glen Ellen; Joseph Drummond, Glen Ellen; Lay Clark & Co., Santa Rosa; J. & F. Miller, Windsor; R. C. Stiller, Guberville; Vache Freres, Old San Bernardino; J. F. Crank, San Gabriel; Wm. Allen, San Gabriel; Wm. Metzger, Santa Rosa; J. Lawrence Watson, Glen Ellen; Walter Phillips, Santa Rosa; Ely T. Sheppard, Glen Ellen; Wm. Pfeiffer, Guberville; Joseph Walker, Windsor; Ranchito Fruit & Wine Co., Ranchito; Downey Fruit & Wine Co., Downey; Wm. Baumgardner, Hollister; A. Bunham & Sons, Bennetts Valley; E. E. Meyer, Wrights; Hill & Marshall, Petaluma; C. Weller, Warm Springs; Seward Cole, Coleridge; Chas. J. Dunn, Healdsburg; Glen Terry Wine Co., Clayton; H. L. Gordon, San Jose; Mrs. A. C. Furniss, Calistoga; B. W. Hallenbeck, Santa Clara; Thos. Buckingham, Kelseyville; Buckner Bros & Regna, Santa Rosa; C. P. Howes, San Francisco; Cucamonga Vineyard Co., Cucamonga; J. C. Mazal, Pinedo; Dr. W. W. Hays, Nordhoff; Wm. Maitland, Boulder Creek; Madam Kloss, Glenwood; D. M. Delmas, Mountsin View; Wm. Bihler, Lakeview; J. L. Beard, Centerville; M. Bollotti, Sonoma; John Hinkelman, Fulton; R. J. Northam, Anaheim; J. Auzerias, San Jose; G. C. P. Sears, Sonoma; J. D. Williams, Cupertino; James Finlayson, Healdsburg; P. & J. J. Gobbi, Healdsburg. Also Worth's Improved Grape Elevators, Improved Continuous Pressure Hydraulic Presses, Worth's Patent Power Grape Squeezer and Crusher, Worth's Patent Horse Power and all kinds of machinery for wine-makers. The Large Toggle Lever and Screw Press is capable of a pressure of 260 tons or 300 pounds to the square inch, the small press has 36 tons or 240 pounds to the square inch.

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Loan Department. Notary Public.

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FOR

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Using the Benoit Corrugated Rollers.

STILL AT THE FRONT.



This Mill has been in use on this Coast for 8 years.
TAKEN THE PREMIUM AT THE STATE FAIR

Four years in succession, and has met with general favor,
there now being

Over 250 of them in use in California, Nevada & Oregon.

It is the most economical and durable Feed-Mill in use. I am sole
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mount on wagons.

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Mr. M. L. Mery—DEAR SIR: In reply to yours of
August 1, 1887, regarding the mill I bought of you, would
say that the No. 2 gives perfect satisfaction, and that I
can crush from 1000 to 1200 sacks of Barley per day. I
will recommend it to the public for good work and lots
of it.

M. C. DILLMAN.

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Having used one of the Barley Crushers manufactured
by M. L. Mery, of Chico, Butte county, I can say it will
do all that is claimed for it, and to those wishing an A
No. 1 machine, I would recommend it as the very best.
I have crushed 35 tons in 11 hours' work.

J. D. GOLDEN.

M. L. MERY, Manufacturer, Chico, Cal.

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"ORIGINAL GANDY" BELTING,

Unequaled for any Class of Work.

ENDLESS THRESHER BELTS A SPECIALTY.

THE EVERLASTING WHIFFLETREES.

These Whiffletrees are something entirely new in construction, the body being Steel Pipe, tapering neatly toward the ends; the trimmings are Malleable Iron shrunk firmly to their place and never become loose in any climate.

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These Warehouses are the largest on the Pacific Coast, and are furnished with the latest improvements for the rapid handling and storage of Grain. A Mill attached, supplied with the best and newest machinery for cleaning foul and smutty wheat.

Storage of Grain per Season not to exceed.....	\$1 00 per Ton.
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Grading Wheat.....	50 "
Cleaning Wheat.....	75 "
Smutting Wheat.....	1 00 "

Weighing into Warehouse, Free.

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SQUIRREL AND GOPHER
SMOKER.This is an apparatus for
Burning Straw and
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And forcing the Smoke and Gases down their holes, which kills them. Does away with poisoned wheat and all other dangerous methods.

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NET SURPLUS, over everything.....287,531 34

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See Official Report in Rural Press April 27, 1889.

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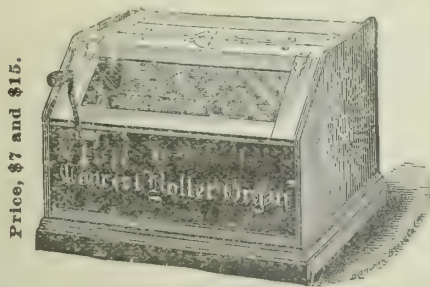
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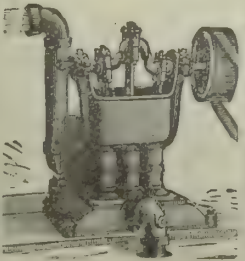
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PUMPS,

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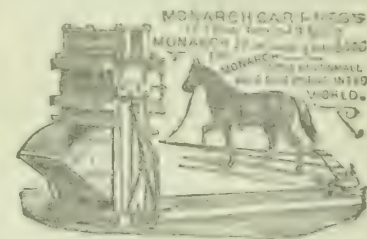
A mounted, horizontal hay press. Size of bale, 22x24x46 inches. Capacity, from 16 to 25 tons per day. Uses 4 men and works with 2 horses. Requires no tramping. Puts 10 tons or over in a box car.

Price.....\$1000.

THE HURRICANE—Size B.

Size of bale in press, 22x24x46 inches. Average weight of bale, 250 pounds. Capacity, from 16 to 25 tons per day. Uses 3 or 4 men, at option of baler. Works with 1 or 2 horses. Uses rope or wire. Does its own tramping. Puts from 7 to 8 tons in a box car.

Price.....\$1000.



The SELF-TRAMPING JUNIOR MONARCH

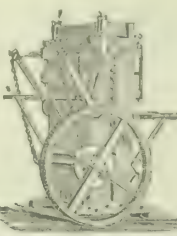
Size of bale in press, 22x24x46 inches. Average weight of bale, 250 pounds. Capacity, from 16 to 25 tons per day. Uses 3 or 4 men, at option of baler. Works with 1 or 2 horses. Uses rope or wire. Does its own tramping. Puts from 7 to 8 tons in a box car.

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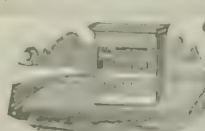
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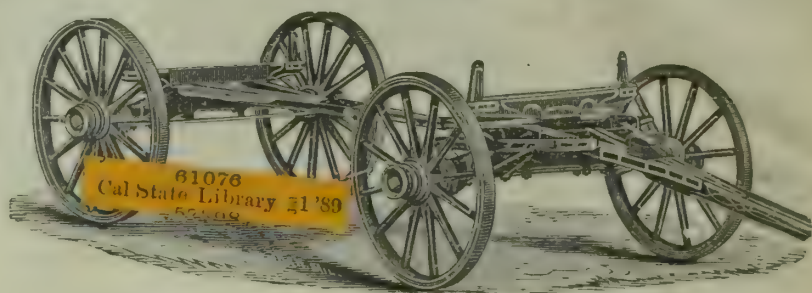
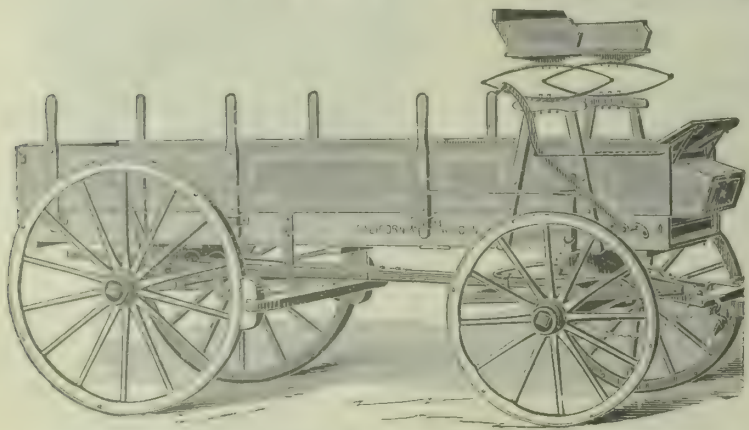
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Complete with Whiffletrees, Neck Yoke, Stay Chains and Wrench.

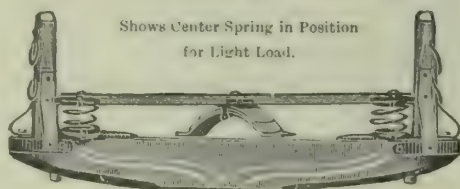
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IT GIVES BETTER VALUE IN RETURN FOR THE MONEY LAID OUT than any other known. The USER gets his money's worth, besides the saving in time, temper, trouble and repair bills, and the DEALER has equal reason to be pleased with a wagon that gives him no annoyance after it leaves his store.

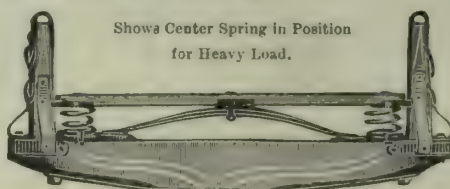
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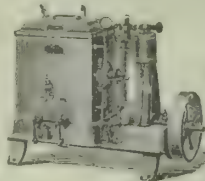
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A NEW HOTEL OF FIFTY ROOMS,

With large shady verandas and other comforts.

We are determined that this place shall be second to none, and we can provide accommodations to suit all, from the best to the cheapest. Cottages for Housekeeping furnished with the following articles only, viz.: Stove and utensils, Table, Chairs and Bedsteads.

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L. E. McMAHAN & SONS, Props.

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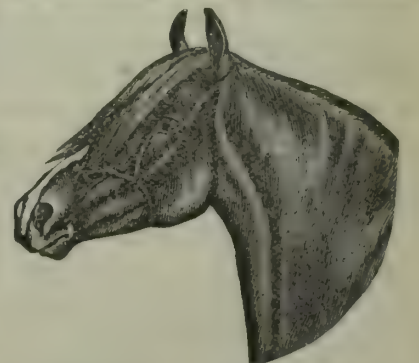
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TWENTY-PAGE EDITION.

Vol. XXXVII.—No. 26.

SAN FRANCISCO, SATURDAY, JUNE 29, 1889.

\$2 a Year, in Advance.

Seedling Roses.

At the recent flower show there was exhibited a large number of California seedling roses. Luther Burbank of Santa Rosa had quite a large collection, all of which had good points, but unfortunately the flowers were damaged in transportation, and the judges were unable to decide as to their specific merits.

The seedling which attracted the most attention was produced and exhibited by E. Gill of Oakland. The accompanying illustration was engraved from a photograph, and is somewhat reduced in size. It is a pure hybrid perpetual, a dwarf, healthy, compact grower, and produces on each shoot clusters of erect buds, which bloom in long succession. The flowers, which are good when expanded, are large to very large, with petals of great substance, which do not fade easily. In color, the flower resembles the Jacqueminot, but of a more pronounced red color. It is a most excellent rose, and California should feel proud that a second rose of undoubted merit should be introduced this year. John H. Sievers' "Rainbow," which was brought to public notice a few months ago, has fully sustained its reputation so far. The growing of new varieties of roses in California may yet become a great industry, and fortunately there are several of our most skillful floriculturists giving attention to it.

The Pharmacists.

The latest national visitation to California consists in the delegates to the convention of the American Pharmaceutical Association, which is holding its sessions in this city as we write. Delegates are present from all parts of the country and they are being entertained and welcomed according to the established California style of treating visiting organizations. The work of this association, although but remotely connected with agricultural arts, is still of great importance to agriculturists because they constitute a large part of our population and naturally pay vast sums of money to the compounders of medicines, etc., though possibly they do not bestow as much upon the shady side of the soda fountain as some other kinds of people.

We are glad that the association is in existence. Its work tends toward the elevation and improvement of the dispensing business and makes it less likely that we shall get morphine when we wish quinine, etc. Its labors are in favor of pure materials intelligently compounded and against the great prevalence of fraud in the debasement of all medicinal substances by adulteration. We are glad the pharmacists have come to California and we hope their general health will be such that they will not need to swallow any of their own decoctions.



A CALIFORNIA SEEDLING H. P. ROSE.

Close of the Volume.

The appearance of the index upon the last page of this issue will remind readers that we have reached another turning-point in our work, and that another volume is ready to go upon the shelves. A study of the index shows that the Rural is growing not only in number of pages, but in wealth of practical information upon timely and important topics.

The number of pages, 628, indicates that the old standard of a 16-page paper weekly, upon which we labored for a number of years, has been increased by 50 per cent, and the almost exclusive presentation of California facts and opinions to which we are compelled by the vast growth of local enterprise and quickening of local thought is evidence of the advancement the State is making in industrial lines.

In closing another volume we desire to return thanks to the hundreds who have aided us by the communication of their thoughts, observations and experiences. Our host of contributors are, as we have frequently gratefully acknowledged, the backbone of the publication. We desire to fully acknowledge our obligations to them and urge them to go forward with the assurance that they are doing genuine public service.

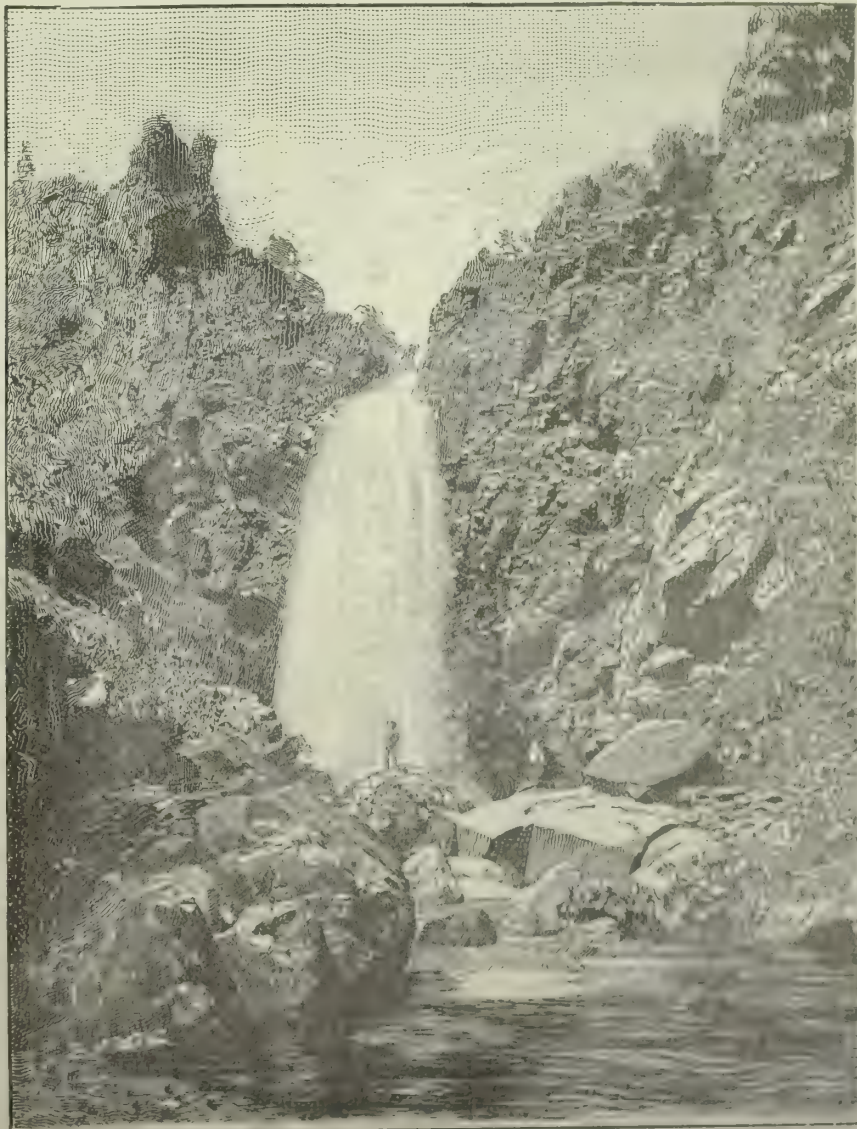
We have plans for the new volume which will be developed as its numbers appear. We feel that success brings its responsibilities as well as its gratifications, and we are resolved

that so far as constant effort on our part can insure it, the Rural Press shall never forfeit the high praise and confidence which its vast parish of readers so generously accord it.

CLOVER CREEK FALL.—We give on this page one of the smaller gems of the scenery of the Shasta region, the falls in Clover creek, which are situated about 40 miles northerly from Redding. The scene, as the engraving shows, is wild in the extreme, and is made up of rocks with their scanty, clinging vegetation, as the environment of the waterfall, which is of no mean dimensions. The scene has elements calculated to please the romantic, the nature-loving, or the piscatorial mind, and is another reminder of the delights of the mid-summer outing upon which the Rural has frequently expatiated.

AGRICULTURAL DIRECTORS.—The Governor has appointed members of District Boards of Agriculture as follows: No. 19 (Tuolumne and Calaveras) D. R. Oliver, T. C. Birney, D. W. Berger, J. A. Goodwin, Otto Dolling, T. J. Solinsky, Lewis C. Horey and Adam Keibar. No. 24 (Pajaro valley), James Waters, Geo. W. Silly, A. P. Roache, A. N. Judd, H. S. Stipp, J. A. McCane, H. L. Jessen and P. J. Thompson.

SENATOR STANFORD does not allow the use of overchecks on his horses at Menlo Park because they torture the animals.



CLOVER CREEK FALLS IN THE SHASTA REGION.

THE DAIRY.

Keeping One Cow.

Pacific Rural Press.—G. H., in the *Rural Press* of June 1st, asks for some hints "on the milking and keeping one cow." A dozen readers of the *Press* might answer his questions, and each give a different one. When I commenced keeping a cow, I asked a number of my former acquaintances for information on these points, and each gave me a different answer. I made a note of all they said, and with some ideas of my own, I adopted the following plan, and my four years' experience has proved satisfactory to myself, at least.

The selection of a cow for family use is of great importance. There is as much difference in cows as in people. It is not every man who can make a speech, or has brains enough to run a business, and it is not every cow that carries her good looks on the surface that gives the best quality of milk, or makes the most butter. When you buy a cow, don't go to a large ranch or employ an agent. The former will sell you his poorest stock, and the latter only works for his commission. Make yourself thoroughly familiar with all the points of a cow, and in your selection use good judgment and sound common sense. A good family cow has a long face, wide between the eyes, the eyes clear, bright and expressive, and placed a long way below the horns. She should have a large muzzle, a slim neck, and a bright yellow skin, especially inside the ears; the breathing should be regular, the back and abdomen strong, the udder wide where it connects with the body, the teats squarely placed, tail slim, and the fore legs shorter than the hind legs. When milked, the bag should give way and become limp and soft when the milking is finished. A cow with a fleshy bag is not a good milker, and her bag is apt to become badly caked when she is fresh.

Feeding the cow—Two quarts of bran, one-half pint of middlings, and few carrots or beets cut up in it morning and evening. Be sure to scald your bran. When you get up to build the fire in the morning (of course you don't let your wife do it), put on a kettle of water and let it come to a boil, then pour it on your bran. Be careful not to give more than half a pint of middlings at a time, for it might founder your cow (I speak from experience); also give her an apple-box full of chopped hay. A hay-cutter (one worth \$10 will answer) is a necessary appendage to keeping a cow, for the sake of economy. A cow will eat only so much, and if the hay is long she will waste more or less of it any way.

In dry weather, when there is no grass, two or three gunny sacks of green feed a day will help to keep her in milk. Sow corn and barley in drills, about August or September, and keep it well irrigated until the rains fall. A patch of barley thus sowed, and irrigated, say 50 by 100 feet, will keep a cow well. From my little patch I get from three to four crops during the season, by irrigating as fast as I cut it.

Never sit down to milk without first speaking a pleasant word to your cow. If you are in the habit of it, she will always look for it. If your cow should step aside, or raise her foot when you are milking her, because you happen to give her teats a wrong twist, or should happen to flop her tail in your face, to drive away some stray fly that is annoying her, don't take a club and hit her over the head with it, and yell at her as if she was a wild beast; nothing will sooner ruin the disposition of any cow than such treatment; besides, she might pay you back by holding up her milk. Speak kindly to her, call her by name, and let her know that you are her friend, and she will prove a true friend to you.

Keep your cow clean. A cow takes kindly to a nice brush, and a good brushing of ten or fifteen minutes every morning (and no one knows how much dust and dirt will come out of a cow's hide till he has tried it) will not only add to her good looks, but will keep her healthy, and also add to your milk and butter account.

As to what an average cow ought to give is a hard question to answer, as no two cows are alike. I have what would be called an average cow. Besides what milk and butter we use in our family, of which we keep no account, I have sold in the last six months one hundred and twenty pounds of butter for which I realized \$30.85, and also \$18 worth of milk, making a sum total of \$48.85, and my cow was not fresh, either. The gentleman from whom I purchased my present cow told me that from April, when she became fresh, till the middle of August, when I bought her, he had sold \$50 worth of milk, which would make a sum total of \$98.85.

With a good hay-cutter and using every time you feed, a ton and a half of hay for the year will be sufficient, providing you have some pasturage during the winter months—otherwise, two tons.

I prefer wheat hay, as it is considered best for milk; next to that, wheat and oats mixed.

A cow should not be confined in too small a yard, as she needs exercise.

I do not think of any more suggestions at present. If G. H. can think of anything more he would like to know, I will try and help him out. I don't pretend to be an expert at the business, and what I have written is simply derived from my own experience.

We (which includes the good wife, for what man does not owe all that he is and all that he

is worth to the advice and good judgment of his wife?) keep a cow, not only for our own comfort and benefit, but to make her pay her own way.

By carefully following the suggestions which I have given, she has afforded us a handsome profit, besides a great deal of satisfaction.

ROGER CONANT.

Santa Cruz, June 18, 1889.

[This is an admirable paper. What can other one-cow men or women add from their experience? The subject can be profitably pursued.—EDS. PRESS.]

Cheese-Factory Rules.

The stockholders in the Hanford cheese factory have adopted the following rules to be observed in transacting the business of the institution:

1. Milk shall be delivered at the factory clean and sweet every morning (Sunday mornings excepted), and not later than 8:30 o'clock. It shall not be skimmed or watered, but shall be strained at home when put into the carrying cans.
2. Carrying cans shall be thoroughly cleansed every day by being first well washed with warm water and a very little soap and then scalded with boiling water and put where the sun can shine upon them.
3. An auditing committee shall be appointed whose duty it shall be to keep themselves informed concerning the general business of the factory so as to be able at all times to give such information to the patrons and to audit the cheese-maker's accounts. They shall also constitute a grievance committee, and should any patron or the cheese-maker make complaint of any grievance, they shall make investigation and adjustment as they deem proper.
4. The cheese-maker shall receive milk every morning (Sundays excepted), and he shall weigh each patron's milk by itself and give credit for the weight and keep a record of the same, which shall always be open to the inspection of all patrons. He shall make the milk into cheese, and if any poor cheese is made through his neglect he shall take such cheese and pay for it the same as the regular price for good cheese.

BRITANNY BUTTER.—The British Vice-Consul at St. Malo, in his report on the agriculture of his district for the past year, states, "for the benefit of agriculturists in general," that the Breton peasants make all their butter from sour milk. The milk, as drawn from the cow, is emptied into a large earthenware jar, and allowed to remain, in the summer, till it is sour. In winter it is continually warmed at a moderate fire until it has turned. The whole contents of these jars are emptied into a churn worked by hand or horse-gear. The butter from this, if properly handled, is as sweet as that made from cream in the usual manner. "This would tend to show that very unnecessary trouble and expense is incurred in England in butter-making, the Breton system being simple and requiring little or no outlay."

THE STABLE.

Percherons in Lake County.

EDITORS PRESS:—Your correspondent was greatly surprised to find one of the leading draft-horse breeding farms of America away back over the hills in Lake county. Who says climate has not a money value when it brings such enterprises into a country? The enterprise was started at a beautiful suburban stock farm fourteen miles west from St. Louis. As Mr. Collier's health failed there, travel in search of a balmy climate resulted in the purchase of a house on Clear Lake and naturally the horses were forwarded. What could Capt. Collier have afforded to pay if he could have had the climate there that he has here? In other words, what would he give here in Lake county climate for a place with as good land and improvements so near to a large city and so well advertised as his old home?

There the breed is known and appreciated, and the colts are in steady demand. They find about as ready a market for grade Percheron colts as for steers, the cost of producing less than twice as much, and the price from three to four times as high. The market value of grades, based upon their usefulness, is the foundation for value of thoroughbreds everywhere. On this basis Percherons have a steady market all through the Mississippi valley, and Mr. Dunham, the great importer, has been able to build up his colossal trade and sometimes to sell as high as seventy thousand dollars worth of horses in a single day. To this herd Mr. Collier went for his foundation stock, first selecting from the catalogue 35 of the best pedigrees, and from that 35 he chose 15 for individual merit and bought them for \$19,600 cash, and certain reserved privileges of breeding which would figure up about \$2500 more. Of this purchase he has thirteen grand brood mares, all registered in the Percheron stud-book, both in France and America, and the produce of such noted sires as Brilliant, Success, Vaillant, Coco and Favori. These are the most noted horses of the breed. Brilliant's blood predominates, and besides having been made famous by Rosa

Bonheur's pencil, he is generally supposed among Percheron breeders (who do not own a rival) to be, for pedigree, style and action combined, the best Percheron that ever lived. Secretary Judson, of the Minneapolis State Agricultural Society, told the writer that he had seen Brilliant clear the ground by six feet when jumping in play as they led him from the stable. Capt. Collier has been driving some of his colts, only partially broken, at a 12 mile an hour gait. In following one to Upper Lake the writer had to urge his driving horse, of thoroughbred stock, into a trot every few rods to keep up with Francisco's walk.

Of this famous herd the four-year-olds are by Brilliant 1271 (755); three-year-olds and two-year-olds by Cesar 3526 (601); one-year-olds by Monarque 5149 (2428). All told, there are now 41 thoroughbreds either registered or eligible and to be entered when of proper age.

A Home Market.

As Capt. Collier is by no means an old man and counts himself a fixture here for life, he has wisely determined to build up a home market and to begin with has put his prices so low that buyers here can save from \$500 to \$800 in cost of sire laid down at their ranch. Nor is this the only advantage, for in buying here they get a horse that is acclimated and avoid a large part of the risk of transportation. He will be very glad to duplicate prices of Eastern breeders with animals of equal worth. Capt. Collier has not yet built upon his own place, but with his family is occupying the beautiful villa of the Rodman Bros., where they have the finest lake view to be had on its whole shore. Two of these gentlemen are graduates of West Point and one of Yale, while near them live Chas. Hammond, G. G. Hammond, Jr., and Wm. Edmonds, all graduates of Harvard '83. With a few more accessions to their colony they might revise the old university regattas on a far more beautiful lake than the old course, and I presume they still retain their old-time enthusiasm for the red of "Fair Harvard" and the blue of "Good Old Yale."

By contrast Capt. Collier has lately bought from that old friend of the Rural, W. C. Myers, of Ashland, Ogn., a pair of Shetland ponies. His friend, Capt. Rodman, has a trio of Java ponies, lately imported from Australia. These are smaller than the Shetland even and built more like trotting horses. The stallion weighs about 400, but feels as big as any horse. In bringing him from Ukiah (30 miles) he was too playful to lead and unbroken to drive. So they had to ride him home, and with a man weighing 150 pounds on his back he was as full of play at the end as at the beginning of the trip. To see him you would think it no more than fair for the man to carry him half the way. If all are as hardy as this, no wonder they are in common use in Java.

A Miniature Stage-Coach

Is on the program. When Captain Collier has time to train the ponies, he means to have a little Concord coach built to match, and then let the children load it up and drive to Lakeport. They are as bright-eyed a crowd of young folk as you often see, and it would not be strange if they sometimes visited Highland, Saratoga, Blue Lakes, Soda Bay, or even Bartlett, in their drives, as all are within driving distance. Our first choice would be to return to boyhood if we could hold the ribbons on that outfit, and the next to have a picture of it for the Rural to show our other boys and girls what fun they have up among the lakes and mountains.

A Great Loss.

Cesar 3526 (601), whose picture appeared in the Rural some time ago, weighed 2040 pounds, and had a great record in the prize-winning, first as a two-year-old in France, then at the World's Fair in New Orleans. At the great St. Louis Fair of '85 he not only took first in his class, but was pronounced the best horse on the ground and the finest draft horse ever shown there. When a little more than four years old, he died of heat apoplexy. Twelve of his get owned by Capt. Collier and a few by Mr. Dunham are all the Cesar colts that can be had. He was a wonderful horse.

Lack of Appreciation.

In talking with other farmers of Lake county, they did not seem to realize that these horses amounted to much. They thought they were too big to travel over the hills, were not fast drivers, etc. Some of Capt. Collier's neighbors have actually clubbed together and contracted for the service of that scrub horse whose owner would bid lowest for their united patronage.

They forgot that they are raising horses to sell and that there is about as steady a market for horses weighing 1300 pounds and upward as for mules. No danger but there will be enough small horses to drive over the hills. For logging teams, for heavy drays, for fire-engines and heavy omnibus horses they want the strength of four horses rolled up in two.

No matter how good a little horse may be, it is no use to hitch a pair of them to a truck where they are expected to draw a regular load of four tons over the cobbles. It is the same way with the twenty passengers and baggage that go on the big bus, and if one of the big fire engines wants to be on hand first we don't know how they can do better than with a pair of broad-chested, flat-limbed, round-barreled, short-backed Brilliant horses, weighing nearly a ton apiece, and all horse at that. Bred to the common small mares of the country, they are liable to get a colt weighing 1300 instead of 900, and that makes a great difference at the

end of a day's plowing or in getting up a hard grade, or through a soft stretch of adobe road.

It would be a pleasure to describe some of the grand animals of this herd, but there is no place to stop. It would be too tedious to name all, and there are not adjectives enough in our language to go around. One interested in such horses will send for a catalogue and then visit the place. There will be some of the horses at the State Fair and a far better showing when the new railroad shall have removed some of the difficulties in taking them to Sacramento. Mr. Rodman has a standard-bred trotting sire, said to be a worthy rival of Electioneer, and a fine lot of high-bred brood mares. He was away at Yale attending his "Decennial" class-meeting and had no chance to describe the stock. We hope to have the pleasure of meeting him and describing the stock at another time. Any one interested in Percheron or standard-bred horses would do well to visit Lakeport, or to address Capt. Wm. B. Collier at that place. F. S. C.

HORTICULTURE.

The Muir Peach.

Its Origin Settled.

EDITORS PRESS:—After several months of delay, I am happy to be able to give the public the true historical facts concerning the origin of the Muir peach. I feel confident that the readers of your excellent paper will be pleased to know that the Muir is a genuine California seedling and that it came from the Crawford variety.

It seems very fortunate that Mr. Thompson of Vacaville pitched into the Muir. Had he not done so, I should never have taken the pains to hunt up its true history or origin. The letters below will explain why Mr. Thompson could not follow the trail of Pool's Late Yellow from Mr. Wolfekill's to Mr. Muir's ranch. In conclusion, I trust no hard feeling exists between Mr. Thompson and myself growing out of the controversy, and I am glad that it has so happily ended. G. W. THISELL.

Winters, Cal.

Letter From John Muir.

Mr. Thissell—DEAR SIR:—In regard to the origin of the Muir peach you speak of, I must say that I never got any buds of Sashel Wolfekill, or of any one else, or ever budded any trees. The fruit in question was on the place when I bought it from Mr. Stewart. You are at liberty to have this statement published if you so desire. JOHN MUIR.

Pampa, Whitman Co., W. T., Feb. 9, 1889.

Letters from J. M. Stewart.

Mr. G. W. Thissell—DEAR SIR:—Yours of October 28th at hand. Contents noted. In regard to those peaches, they were all seedlings. I had no budded peaches on the place. Those seeds were planted in the spring of 1866 and in the winter of 1867. They were transplanted, and in the summer of 1868 they bore fruit for the first time; the best or choicest one was growing along the turn row or road running west from the house. In the spring and summer of 1869 I gave those trees extra care by thinning the fruit and summer-pruning, and every one that sampled the fruit said that they never before had tasted such fine peaches. There were some parties down from El Dorado county that told me they never in their life had tasted such fine peaches as those.

Those yellow freestones were seedlings from the Early Crawford variety. The cling and some white freestones I obtained from Jasper Ogle, who joined ranches on the west. They were all seedlings; he had them in nursery rows and I dug them up in the spring of 1867. I sold the place to John Muir in the fall of 1869; gave him possession after the first of December, 1869. Mr. Muir told me after he moved to Lake county, where I was at his house, that he thought he had raised the finest peaches from those trees that were on the place when he bought it of any in the State; at least they were pronounced so by fruit-growers and packers.

This statement I am willing to certify to before any magistrate, and have no objection to it being made public. J. M. STEWART.

Walnut Ranch, Nov. 20, 1888.

Second Letter From Mr. Stewart.

Mr. G. W. Thissell—DEAR SIR:—Your favor of 7th instant is at hand and contents noted. In regard to your inquiry about the seeds or pits that those peaches grew from at the date that I wrote you about first, I made a practice of saving seeds from choice peaches or plums, and I frequently bought peaches from a German peddler, whose name was Reester, who bought chickens and eggs and took them to Sacramento, and on his return would bring out fruit to any one wanting it. Another vender of fruits was an Italian or Portuguese. He also brought fruit from Sacramento. But by whom those peaches were grown, I know not, neither can I swear positively which of those peddlers sold me the fruit, but to the best of knowledge and belief it was the German Reester. Yours truly, J. M. STEWART.

Fillmore, Dec. 17, 1888.

RECIPE FOR AXLE GREASE.—An excellent home-made axle grease is said to be made of two parts tallow, two parts castor oil, and one part of pulverized black lead.

POULTRY YARD.

My Neighbor's Chickens.

Of all the nuisances that make
A rural life accursed,
My neighbor's chickens take the cake
For being just the worst.

I rise betimes to plant a bed;
As soon as I'm away
Those hens, by the big rooster led,
March in and spend the day.

And when I hasten home at night
To see my labors crowned,
Those chickens, with a cyclone's might,
Have scratched my pretty ground.

My wife the baby leaves alone
To shoo those hens away,
But as she cannot throw a stone,
They laugh at her and stay.

Around my house is little seen
But dusty holes and dirt;
They eat the grass before it's green
And all my flowers hurt.

My neighbor has a garden, too,
And keeps it looking fine,
For he has trained his pirate crew
To fly right into mine.

In case I shoot the feathered plagues,
I go to jail, alack;
If in my yard they drop some eggs,
My neighbor wants them back.

Beneath my window ere the dawn
His rooster comes to crow,
Till I, half crazy, seek the lawn
And chase it with a hoe.

I live in strife and misery,
Because my neighbor tries
To handle chickens that should be
Upon a farm of size.

—H. C. Dodge, in *New York World*.

Death Traps.

EDITORS PRESS:—This is an excellent time of the year for the poultry keeper to have a watchful eye open for chicken death traps. It does not pay to go to all of the expense, time and work of getting a nice breed of chicks up to the feathering-out stage of chickenhood only to have a thrifty cockerel or pullet accidentally killed. Nothing is more exasperating in poultry raising than this, and regrets are vain after the deed is done. Although it is not always possible to guard against such an untimely taking off of the feathered youngsters, as some of them seem determined to run into danger, still the ordinary death trap is easily made harmless. A pail, tub or trough, half full of water, into which a chick occasionally plunges is a common peril seen standing innocently around the stable or dooryard of the ranch. If the vessel is brimming full of water, or if there is but little in it, the unlucky chick may manage to struggle out, but usually the little thing drowns surprisingly quick. An open-air barrel is a most deadly pitfall. In its lower depths many a too eager chick has perished miserably. One such, to my knowledge, caught every one of a fine brood of thirteen chicks. It was an unlucky number to be sure, but nevertheless the barrel should have been provided with a cover.

If water is left standing in troughs, etc., where chicks are liable to tumble in, put a board, or a brick, or anything, into it so that the victims can reach it with their feet, and they will not drown. It is only when they cannot touch bottom of some sort that they flutter in vain. Even so simple and apparently harmless a thing as an ordinary two quart tin pail two-thirds full of water, put out especially for the chicks to drink out of, is dangerous. A downy toddler perches on the edge, loses its balance and pitches in. Its feet cannot reach the bottom of the pail nor its head the top. It is a death trap.

The pig pen is another snare for the unwary. Chickens disappear mysteriously and the cat, or the dog, or rats, must be guilty. The pigs are often the last to be suspected, while really they are the only culprits. Once they get a taste of tender chicken flesh and they constantly watch for more. Greedy, cunning, and quick as any cat in snapping up its prey, a chicken-eating pig will decimate a young poultry flock in short order. It will pay to make the pig pen chicken-tight with wire netting or laths.

Even so simple an arrangement as two fruit trays, standing on edge together by a fence, trapped a fine chicken of mine the other day. Into the narrow space between the trays the little fellow pushed his way, apparently bent on committing suicide, but probably after flies or bugs. It could go only about half the length of the tray, and in struggling to go on it wedged its body in so that it could not turn to go back, and so it died before any one knew that it was caught in the queer trap.

In keeping poultry for profit one should aim to get all the money there is in it. It is, after a little, less trouble to be cautious than careless. No one really does the necessary work about the poultry-yard so easily as he who does it right. "A penny saved is a penny earned," and though the loss of a young chick now and then may seem trivial, it is preventing just such small losses that makes the business profitable in many instances. It is all well enough to sit down with pencil and paper and figure out that if one hen returns a profit of four bits a year a thousand hens will pay \$500 at the lowest estimate.

But, possibly, at that minute some one of the thousand is gasping its last in a swill tub or water bucket. The moral is plain to poultry keepers: at this season look out for death traps!

In this connection just a word to Mr. E. H. Schaeffle, who, in the *Rural Press* for June 8, notices my observations on chicks dying in the shell. Mr. S. advice is excellent, but it doesn't apply at all to me. I was not complaining, but simply stating facts which had no bearing on my own case this season, but which were gathered from a somewhat wider field of experience, perhaps, than Mr. S. has ever wandered over. Isolated exceptional instances, such as he cites, of an incubator which hatched 240 out of 280 eggs, does not settle the question. I have tried nearly every incubator of any note ever manufactured. I have seen good, bad and indifferent hatches, and still I ask why do so many chicks die in the shell at about the 18th day of incubation? Of course each different incubator has its defender. I am arraiging not one but all machines, and on this particular point only. As to Hammoniton (not "Hammondsport") the founder of that unique community, Mr. Jacobs, has explained to me the methods followed in the New Jersey hamlet. That such methods have been highly successful, is true. But if Mr. S. thinks the Hammoniton or any other incubator has settled the "dead in the shell" difficulty, let him try it. I think he will acknowledge that the eggs are not wholly at fault; the machine is just a little to blame.

Santa Clara, Cal.

CHAS. R. HARKER.

Raising Mongolian Pheasants.

Several persons, among them a professional breeder of fancy fowls, having written to the *Oregonian* to state that it is impossible to raise Mongolian pheasants in confinement, that paper says:

This theory is proved to be false by Mr. Ferry Henshaw, of this city, who has raised two broods in a back yard right in town. At least, he has raised them so far that there is no doubt of his making a success of it. One brood is a month old, and the little fellows are so completely feathered out that their wings have been clipped. The other brood is a week younger, and they can run and fly like any thing. Out of 41 eggs, placed under two hens, 36 chicks hatched out.

Mr. Henshaw has 21 of these alive and says not one of the others died from natural causes. The old hens who claim the broods are kept in large boxes with wire netting in front, through which holes are made to let the little pheasants run out. These boxes are in a coop about 8x16 feet made of laths placed close together to keep the little fellows from flying away. The three-weeks' old birds fly around like sparrows, and when a worm is thrown to them will snatch it from one another and run and race like young turkeys. The month-old ones fight like game chickens, and all of them are so tame they will take their food from a person's hand and allow themselves to be picked up and handled.

No extra precautions have been taken in rearing these birds, and the circumstances and surroundings are certainly not so favorable as they are in the country. Mr. Henshaw thinks that his success arises altogether from feeding, and he uses some kind of a mixture which they eat heartily and thrive on. So it will be seen that Mongolian pheasants can be raised in confinement if one only knows how to feed them.

Dead in the Shell Again.

EDITORS PRESS:—I will give Mr. Schaeffle my method—if method it could be called—relating to the "dead in the shell" piece in your issue of June 8th, page 543.

With our first two incubators we had the same trouble, finding fully a quarter of the eggs in the condition he speaks of, and so we decided to experiment a little.

We bought our eggs of our neighbors, not having the fowls to breed from ourselves, and let them lie spread out on the floor for 24 hours after getting them home, thinking that the jar of the wagon might injure the germ and that quiet might restore it.

Next we added two large sponges to the machine, thereby increasing the moisture, and last but not least, we kept the thermometer one degree higher (104°) than in the two previous hatches, thinking that it might not register correctly, and the result mentioned through your paper followed, showing, I think, very distinctly that the fault was in our machine. This makes but two cases; let us hear from others.

I would like to hear from some one on the subject of allowing roosters to run with hens when the eggs are not used for breeding, as I have been thinking that they are not a necessity and only worry the hens; and again, how many hens to one rooster, when used for breeding?

F. S. BRIGHAM.

Kelsey, Cal., June 14, 1889.

DISPOSING OF GLANDERED ANIMALS.—The San Diego supervisors have this month ordered the County Veterinary Surgeon, E. Backenstose, whenever he finds a horse or mule with the glanders, at once to notify the owner or party in charge of such animals to kill and bury the same within ten hours; and if the owners or parties in charge of said animals fail to kill and bury the said animals, the veterinary surgeon is ordered to kill and bury them forthwith.

THE APIARY.

The Alley Hive.

EDITORS PRESS:—In your issue of June 15th, Mr. Norton gives a description of and recommends Mr. Alley's closed-end frames and hive, which looks very nice on paper, but is of no use for real business.

Ever since Langstroth brought out the movable frame there have been every now and then individuals advocating having the frames at fixed and regular distances, that the bees may be obliged to build their combs of exact thickness. Many systems have been tried, but the majority of large apiarists and men who follow the business for profit agree that combs as they are usually found are better handled without being fastened at fixed and regular distances. I agree that some of these systems have decided advantages, such as having the frames solid and substantially held when hives are to be moved, doing away with a honey-board, etc. But, alas! the frames are not "movable," and although thousands of such hives have been introduced and sold, nearly all of them have been laid aside. The Langstroth arrangement is the only one that stands the test of years. I can assure Mr. Norton that Alley's hive will never supersede or equal the Langstroth for this reason alone: that it places the frames at fixed distances, which will always remain a great objection so long as the bees will persist in building combs of such irregular thicknesses. If any one thinks this can be easily got along with, let him take two heavily filled combs with bulged cells along the top bars and try to make them come up together. With suspended frames this can be easily got along with. Also try to close up a hive made of so many loose pieces and try to do it quickly without killing bees. In short, try using such hives in the apiary for one season by the side of suspended frame hives, and I will venture to say that one season alone will satisfy the most ardent admirer of the closed-end frames.

San Mateo.

WM. STRAN.

Arizona Bee-Keepers Organize.

The *Phoenix Herald* gives the following account of a protective movement undertaken by the bee-keepers of Salt River Valley. J. A. R. Irvine presided at a meeting on June 8th and J. L. Gregg was secretary. The Committee on Organization made the following report, which was adopted:

WHEREAS, We, the bee-keepers of Salt River Valley, find that owing to the want of organization and concert of action (for united we stand and divided we fall) we are unable to raise honey and bees for the present prices offered; and

Whereas, all other trades and pursuits have united for protection against all other combinations and unions; therefore

Resolved, That we, the bee-keepers of Maricopa county, do hereby organize ourselves for our mutual benefit and protection, the said organization to be known as the Maricopa County Bee-Keepers' Association, and do hereby adopt the following constitution and by-laws for our government:

SECTION 1. The officers of this association shall consist of a president and three vice-presidents—one for Phoenix, one for Tempe and one for Mesa City, secretary and treasurer, who shall hold their respective offices for the term of one year, and until their successors are elected and duly qualified.

SEC. 2. It shall be the duty of the president to preside at all meetings of this association when present, but in case of the absence of the president one of the vice-presidents will preside, or in case of all being absent, then the members can elect a *pro tem* to take the chair.

SEC. 3. It shall be the duty of the secretary to keep a correct account of all the proceedings of the association, receive all moneys, and keep a correct account for the same, and pay them over to the treasurer and take his receipt.

SEC. 4. It shall be the duty of the treasurer to receive all moneys from the secretary, giving a receipt for the same, and to pay them out by order of the association, taking a receipt as a voucher.

SEC. 5. It shall be the duty of the presiding officer to keep order, and see that the rules are obeyed.

SEC. 6. All persons disobeying the rules and by-laws are subject to a fine of not more than \$25 nor less than \$1; provided, that they have been tried and found guilty, according to Section 7.

SEC. 7. Any member accused of disobeying the rules and by-laws must be tried by a court of three judges, appointed by the presiding officer, which court shall take all the evidence pro and con, and if found guilty, pronounce sentence.

SEC. 8. A quorum to transact business shall consist of at least seven members of this association, and in taking the vote on any subject a majority of members present shall rule.

SEC. 9. Our stated meetings shall be held on the first Saturday in each month, and called meetings can only be called by order of the president, through the secretary, by giving due notice.

SEC. 10. Any person can become a member of this association by paying one dollar (\$1) to the secretary, and by signing his name to the roll of membership, and his receipt from the secretary shall be his credentials of membership.

Signed by John L. Gregg, J. M. Cosby, W. L. Osborne, B. F. Johnson, J. A. R. Irvine, A. Graham, J. H. Broomell and G. J. Smith.

SMALL FRAMES FOR COMB HONEY.—The *Riverside Press* says that last season Griffin & Skelley shipped to New York a carload of choice white sage honey, and found difficulty in selling on account of its being put in two-pound section frames. They urge that beekeepers use the

small frames as far as possible, and not be so busy arranging to use the one-pound section, which is the popular size in the market. If the use of a properly constructed comb separator the filled sections can be put into neat and attractive paper boxes and placed on the market in the most salable shape. In this form honey will command from two to three cents a pound more than in the ordinary manner of shipping. Griffin & Skelley recently imported from Ohio a carload of these small sections, which they have disposed of to the beekeepers near Riverside.

ENTOMOLOGICAL.

Scale Insects in the Island of Mauritius.

EDITORS PRESS:—On the 14th of October, 1887, I sent specimens of the cottony cushion scale and of the red scale to our consul for the Island of Mauritius, requesting information concerning these and similar insects found upon that island; not being familiar with this subject, the consul, Mr. Thomas T. Prentiss, submitted my letter to Mr. J. M. Horne, Director of Woods, Forests and Gardens in Mauritius, and under date of Feb. 21, 1888, Mr. Horne writes as follows:

Mr. Horne's Letter.

"Dear Sir: I would have answered your letter sooner had time permitted. In regard to the subject of the inclosed letter, the 'cottony cushion scale' seems to be the same as what is known on badly kept hot-house plants in England as the 'white bug' or 'mealy bug'. We have it or a species very like it here, but it never or seldom gets into notice. Our great enemy is the large white one (the 'Pou Anglais' of the Creole French people here, the *Dortheia seychellurum* of Westwood) so common sometimes on rose bushes; and the 'Pou Blanc,' which is generally found on the leaves of badly grown canes in the dry localities in the island. The ravages of these pests are nothing here now to what they were formerly. I attribute this to the increase in the island of the ladybird, a species of *Trimera*, which preys upon them and keeps them in check. Rodrigues is infested with these pests just now; they are killing the citrus trees there, and lately I have caught a large number of ladybirds here and sent them to Rodrigues, but, of course, some years will likely pass before the result can be appreciated.

"As to the 'red scale,' I doubt if it is here. However, we have another one of the same genus here on the leaves of the cocoanut palm, which by destroying the leaves injures and kills the palm. It still exists, but is not nearly so abundant as it was ten years or so ago. I do not know the cause of this, but it may be owing to one or two things, or both; preyed upon by another insect, or destroyed by rain driven violently against the leaves by wind; this would not injure the old ones, but it would destroy and wash the young ones off the leaves, and a few good showers repeated at short intervals during say about two weeks almost clears a tree of these insects. These insects—such as the cottony cushion scale, mealy bug, etc.—have so spread now that it is impossible to say without a degree of doubt what country they are natives of. It is well known, however, that the Pou Anglais (*Dortheia seychellurum* Westwood) was brought here from Seychelles on some young palm trees that were sent from Seychelles to the gardens at Pamplemousses about 35 years ago. Its native land is therefore well known, but I know not what country the scale on the cocoanut-palm came from, nor do I know the insect, if any, that preys upon it.

"In summing up, then, I would recommend the ladybird (*Trimera*) as a cure for the cottony cushion scale, and the washing of the trees well and frequently with water from a force-pump for the red scale, and a law of the State should compel every one to make use of measures for destroying these pests.—J. M. HORNE."

While Mr. Horne's knowledge of insects is somewhat imperfect—as evinced by his confounding the cottony cushion scale with the mealy bug—yet his statements that the two kinds of scale insects—the "Pou Anglais" and the "Pou Blanc"—are preyed upon by a species of ladybird, and that the cocoanut-palm scale has been greatly reduced in numbers probably from the attacks of some kind of insect, is well worth investigating; and if an agent is sent to foreign lands to collect and import specimens of scale-eating insects, the Island of Mauritius should by all means be visited.

D. W. COQUILLETT.

Los Angeles, Cal.

BERKSHIRE SALES.—Phil M. Springer, Springfield, Ill., sends us information of transfers of thoroughbred stock reported to the *Berkshire Record*: Elen Bay 18137 by Henry P. Mohr of Mount Eden, Cal.; to Henry B. Marlin of San Lorenzo, Cal.; Stockton Chief 21217 by Austin B. Sperry of Stockton, Cal.; to Chas. A. Stowe of Stockton, Cal.; Annette 20786 and William 20791 by R. W. Carey of Macleary, Oregon; to H. W. Cottle, of Salem, Oregon; Duke II 20787 and Mollie Magee 20790 by R. W. Carey, to Wm. Fuqua of Parker, Oregon; Oregon Chief 20789 by R. W. Carey, to S. G. Reed of Portland, Oregon; Matilda 20994 by R. W. Carey, to T. D. Allen of Silverton, Oregon.

BEAUMONT has organized a board of trade and agriculture to look after the interests of the San Geronimo valley. Judge A. McCoy is president and C. M. Ross secretary.

THE strawberry crop around National is large this season. O. Walker markets about 2000 boxes per week from three gardens.

PATRONS OF HUSBANDRY.

Grange Meetings.

California.

Yuba City, June 29
 State Grange, Sacramento, Oct. 1
 Oregon.
 Linu Co. Business Council, July 6

Organize That We May Be Strong.

Mr. Stephen A. Smith of Illinois at one time said: "Legislators are elected to carry out certain purposes." This is the case the Union over. Legislators are elected to carry out certain purposes. But instead, they perjure themselves, betray the trust, and sell the rights and trusts of their constituents. The interests at home are not alone those that suffer. Our National legislators betray the sacred trust. Gold and flattery dim their consciences, and they sell the interest of the laboring-man and producer to the monopolist or corporation.

It is claimed there is no law to punish such perfidy. But there is a way out of such conditions if the American people ever rise to the true level of freemen, and that is by the ballot. Men get these positions of trust through the ballot, and may they not as surely be left in the background by the same means?

We often hear the question, "Why are farm products so low?" We grant that one of the dearest privileges that may come to the American producer will be to fix the price of his products. And why may it not be? Are farmers less able to plan and know the cost of their products than other workmen? Are they less appreciative of labor? Why, may we ask, is it that other industries agree upon prices? Do our manufacturers not meet together and fix prices in their line? Do not wagon-makers, plowmen, machine-men and other skilled workmen have their conventions and fix their prices? If this is possible among other classes of laborers, why is it not possible for the farmer? Is it not worth our while to have a union of interests and come together in fraternity as well as name?

This is an age of combination, and combination will beat combination. By no other means can farmers compass this end. It is the farmers' interest to come together in the Farmers' Clubs, Wheels, Alliances, Congresses and Granges for the common purpose of self-protection. Let them here agitate a common convention whose duty it shall be to fix prices and suggest methods by which their plans may be consummated. The farmer has got to come out of his shell and plan for more than to buy; he must plan to sell. Mr. Smith truly says: "The wheels of the world will not go unless you grease them with the products of your toil."

Reforms begin among the common people, and if redress comes to the farmer, he must demand it intelligently; and before it can come he must become cognizant of the errors and dangers that surround him, and, by the light of enlarged perception, point from darkness to light and show the way.

To do this he must organize, that he may combat with equal strength, energy and strategy those combines that sap his very life-blood, as it were, and sip in his cup. While separated, isolated, he is weak. Get the forces together, concentrate the purposes, and who will question the result?

Will some of the brothers give their views upon the possibilities of a National Convention to fix the price of wheat? For, in this convention, the whole creation of producers must not enter. A convention must fix the price of some one product, a second convention, of another, and so on down the list of commodities that boast a market in the marts of the world.

One Thousand New Members.

One thousand or more new members should be enrolled in California before the first of October. There are twice that number of practical husbandmen and matrons in the State who would rejoice at having entered our subordinate Grange gates, received the sixth degree in the State Grange and become instructed in the beautiful lessons and mysteries of the seventh or National Grange degree.

Patrons, take in at once all eligible in your own families, and extend information and a welcome hand to all who are well qualified in your whole neighborhood.

THE NATIONAL GRANGE.—Encouraging letters have been received during the past week, which make it seemingly certain that the National Grange will hold its next session in California. We are very anxious to say, and that soon, that its coming is a positive fact.

Travels of the Worthy Lecturer.

No. 3.—En Voyage to Europe.

MESSRS. EDITORS:—We left N. Y. on the Anchoria May 25th, 3 P. M., bound for Glasgow. Mrs. Ellen E. Flint of Massachusetts was added to our party at New York, so we consist of five persons now. Passengers going over here want to provide themselves with warm clothing, overcoat, woolen cap for men and women, a folding-chair to sit in on deck.

Mrs. F. purchased six tallow candles to light up the dark places of our pilgrimage. I wanted to get something to make the obscure places more bright, but preferred to purchase on the other side. I thought perhaps Diogenes had found his honest man by this time, or given up the search, and would be out of employment. So I could engage him with his tin lantern and tallow dip.

Outward Bound.

We discharged the pilot off Sandy Hook about 6 P. M., with a smooth sea and fair prospect of pleasant trip. Sunday was quite pleasant. The fog began Tuesday and was quite thick. Extra men were put on the lookout, and the fog-horn was blown every three minutes continuously night and day. Then the north wind set in and blew a cold blast, nearly a gale; then the wind came from the southeast and we had a severe gale for three days. Seasickness, wind, rain and fog has been the chief topic of conversation. Persons on board who have crossed several times say they never met with a more disagreeable passage. But a very little of the time was the weather pleasant enough to sit or walk the decks.

We had a light list of passengers, but extremes as to age—one gentleman 82 years, one infant eight weeks, and all nations, Ethiopian and Mongolian.

Columbus and His Fishing Smack.

The drift of conversation outside the weather, etc., seemed to be the great feat they or their friends had accomplished or seen. One of the passengers went on extolling the great achievements of Columbus for having crossed the Atlantic in such a frail bark and his great discovery. I gave assent and thought of the splendid statuary in our State Capitol, etc. I said he was a bully boy and deserved monuments and great praise until there came on a severe blow and the ship began to heave and roll for all there was out. Soon I began to look down into the wash-bowl and take a panoramic view of my breakfast, and it changed the whole theme of my thoughts. I envy him his fame, but if he had continued to run his fishing smack in the transportation of sardines and macaroni it would have saved me some disagreeable feelings, for I probably would have been born on the other side of the great waters, or not born at all.

Entertainments.

On Wednesday, the 29th, the younger members of the cabin passengers got up an entertainment with regular written program, part in German text, of readings, recitations, vocal and instrumental music. In looking around for a chairman, I was finally selected to fill the position. Some on board found out that I was a Granger. So the fact that I was a Granger brought me into prominence once, if it never does again. The entertainment was pronounced a success, and a collection was taken up for the benefit of the life-boat service.

We had services on Sunday by a young man who was going out to Florence as an instructor in the Methodist Church. Tuesday morning, at three o'clock, we sighted land on the north end of Ireland. At six we came to a little town called Moville, and lay in the stream for one hour, when about one-third of our passengers got off. We steered away again for Glasgow, passing, as we rounded the many prominent points, green and well-tilled fields, with frequent villages. As we crossed the channel, the mainland or some of the island was always in sight.

Nearing Scotland.

We passed some beautiful country places and villages before we arrived at Greenock, the mouth of the Clyde.

Arriving at Greenock about 4 P. M., and learning the tide would permit the steamer to go to Glasgow, she took on a pilot and with the assistance of two tug-boats, one forward and one aft, to assist in pulling her around some of the sharp turns in the channel, she proceeded up stream.

There has more been done and being done for 20 miles than on any river I have yet seen. The river is not near as large as the Sacramento, yet it builds and floats the largest of ships. Its banks are walled for miles and miles, and powerful dredgers are at work deepening its channel. Some of this debris is taken to deep water and dumped, while some is put upon the land to make fertile fields. Small, sharp, swift passenger-boats are flying in every direction.

On the Clyde.

At some places the iron skeleton frames of steamboats are huddled together, and the sound of the riveting hammer is heard above the din of everything else.

Now the hills are low, green, smooth, and sloping toward the river.

Considerable timber is seen, and sleek, fat cattle are taking their ease on the green turf, or lying under the large trees. We pass Dumbarton castle on the right bank, with relics of its old fortification.

It is a cone-shaped crag, springing up from the banks of the river, of perhaps 300 feet high,

and as much or more in diameter. Its prominent historical point, as near as I can learn, was its being taken from the English by Wallace.

Glasgow, Scotland.

We arrived at Glasgow a little after 6 P. M., and after having our luggage examined by officials, went to the Waverley hotel.

I have a kind word for the good ship Anchoria that brought us safely over through storms and fog.

She rode the billows like a cork, and severed their threatening attitude as a swordsman does his adversary. The officers were gentlemanly and efficient, the cooking and supplies unsurpassed. We had fresh salmon from Columbia river for breakfast Sunday morning. The Anchor line may be a little slow in some respects, but I believe they aim to be sure and safe.

D. FLINT.

Steamship Anchoria, May 30th.

Condition of the Order.

Bro. John Trimble, Worthy Secretary of the National Grange, in corresponding with an organizing deputy in Mississippi, said:

Permit me to say, in deep earnestness and with perfect accuracy of statement, that there has never been, in the history of the Order, a time when the Grange was in a more healthy condition than it is to-day. We do not hesitate to acknowledge, on the contrary we state the fact, that in some of our lives the Grange cause—the cause of the farmer—seems dull; and the farmer seems indifferent to his own interests, but these lives are exceptional. Looking over the entire field, I see the farmer aroused to the issue, I see the Patrons, here, there, everywhere, constituting themselves, as they ought, missionaries and instructing their neighbors in the aims, objects and virtues of the Order, and thus bringing them within the influence if not within the honored precincts of the Grange. New organizations have sprung up. I have not one word to say against them, except that, so far as I can see, they have no cohesive principle in them, and cannot, therefore, control and command State and National legislation, in the pure interest of the farmer. The Grange has done this, is doing it, and will continue to do it with a power, even more powerful than in the past. The Grange is a permanent institution; others are temporary, but will do good in drawing the attention of the farmers to the importance and necessity of organization.

San Miguel Grange.

MESSRS. EDITORS:—San Miguel Grange held quite an interesting meeting on Saturday, the 15th. Bro. Rhyne, Lecturer of Paso Robles Grange, paid us a visit and favored us with some appropriate remarks. Under Good of the Order our own Lecturer, Sister Fiske, read an interesting poem that was well received.

The principal subject discussed was, "How to interest the farmers in the Grange movement." Most of the brothers and sisters took part in the discussion, and from the interest and enthusiasm displayed, I hope for good results in the future.

At present, we are a small Grange in a new but growing community, but we expect to grow with the country. We have already initiated one member, but hope to have a class soon, at the close of which we can have a regular old-time Harvest Feast and open meeting, and perhaps have Bros. Webster, Steele and others of S. L. O. county Granges with us.

These new Granges particularly need some of the older workers with us occasionally as an inspiration and to instruct all in the duties, benefits and privileges of a Granger.

There are a number of Granges here within a radius of 25 or 30 miles, and when picnic-time comes another year I hope we shall be able to have a union picnic, equal to any in the State.

Now, brother and sister Grangers, let us all work and make a rousing success of the Granges of Southern California.

E. A. F.

San Miguel.

THE OLEOMARGARINE matter is awakening great discussion now in Sweden. A bill prohibiting the importing of oleomargarine from foreign countries and placing severe restrictions upon its manufacture at home has passed the Riksdag, and there is no prospect that it will be vetoed. Its passage was advocated by the protectionists and opposed by the free-traders, both acting on general principles. The farmers on the one hand reinforced the protectionists, and on the other side, the workmen in the large cities almost as a unit opposed the bill, saying that it would deprive them of the only kind of butter they could afford to put on their bread. The farmers rejoice that the protection to which they are entitled has been given them. It is of special interest to farmers here after the sturdy fight they carried on in this direction.—*Massachusetts Ploughman.*

A. D. LOGAN, president of the Grangers' bank of San Francisco, paid our town a visit on Monday last. Many years ago Mr. Logan was a resident of Sutter county, near Gaither, and has ever since cherished a kindly feeling for the county and his old neighbors.—*Sutter Co. Farmer, June 21st.*

MEXICO GRANGE has two applications for membership on file.

Letter-Notes, Etc.

From San Luis Obispo.

Judge Steele writes June 22, 1889: *Dear Bro.:*—Yours of 17th duly received. The die (changed for seal) came all right. Accept many thanks for the promptness with which you attended to the business of our Grange. Our Grange is getting on as well as could be reasonably expected at this busy season of the year. I think we have very encouraging prospects for a large and active Grange at the Arroyo Grande. I am going to do my best to persuade all families at least belonging to our Grange to subscribe and pay for either the Rural Press or the Patron, for I believe by so doing the good of the Order will be largely promoted, as well as the interest of your invaluable papers. I have strong faith in the educational feature of the Grange work. We (P. of H.) should, in my opinion, exert ourselves to induce all the members of the subordinate Granges to become reading and thinking men and women as well as laboring. I believe the Rural Press especially is well calculated to inspire a taste and desire for the right kind of reading for the farmer and his family.

Calaveras County Prospects.

MESSRS. EDITORS:—We are on the eve of getting the first Grange started in Calaveras county. Bro. Northrup has been doing some missionary work, and has requested the members of Washington Grange to assist in organizing when they are ready, which we readily consented to.

Now, can a Master or Past Master organize a Grange without being deputized by the Worthy Master of the State Grange? If not, could not you send a commission with the name blank for Washington Grange to fill, as we want the honor for the work that we are trying to do? After the fruit festival we intend to move on the next dormant Grange, and we believe that we can set the ball a rolling.

S. C. W.

[The Master or Past Master cannot organize a Grange without appointment as a regular deputy or a special deputy for the purpose. We say, all honor to the wide-awake Patrons who have gone so far with the work of organizing, and who are desirous of rolling the work along.]

We hereby refer the matter to the Master of the State Grange, who will, no doubt, arrange things to the entire satisfaction of all concerned. Let Patrons in other parts of the field take notice of the action of Washington Grange and govern themselves accordingly.—[EBS.]

Better Than We Knew.

Bro. John Trimble, Secretary N. G., writes from Washington, June 20th, good news as follows:

DEAR BRO. DEWEY:—In the Pacific Rural Press of June 15th you say "the Darden memorial fund amounts to \$1185.95." I have receipts from good Patriarchal Bro. Saunders, treasurer of the fund, amounting to \$2280.64, leaving a balance in my hands of 88 cents, and subscriptions coming in almost daily. I know you will be rejoiced to learn that I make a better showing than you do in the Rural. If you think I don't read the Rural, you are mistaken. I do, and with pleasure and profit.

Bro. Hooper Improving.

Mrs. Edgebreiten, daughter of Bro. T. T. Hooper of Bird's Landing, notes June 24th: Mr. Hooper is improving rapidly, and can move his left leg and arm by straining a little. I think in the course of time he will be out and around. He hopes to be able to attend the National Grange, and if nothing serious happens he doubtless will. We hope his recovery will be rapid.

See the Cat?

MESSRS. EDITORS:—I am glad to see that the action of the State Board of Equalization and the county assessors together are awakening the sluggish land-user to the fact of double, treble and quadruple taxation by levying on personal property, growing crops, etc. When a farmer gets to see this he begins to see the single-tax "cat."

I note what Mr. Merrill says, and when he says the board and the assessors are violating the law he may or may not be right—according as the court shall decide—for be it remembered that not only the Board of Equalization and the county assessors, but the judiciary also, have a hand in this matter, and on the same side; vide a case on trial two years ago before the Superior Court here, in which the assessor was prosecuted for not assessing certain mortgages as ordered by the Board of Supervisors, amounting to about \$200,000, held by parties outside the county. The decision rendered held, practically, that it was at the option of the assessor to assess or not. Here was a clear case of evading the plain language of the law, and the court sustained it. The law says he shall assess all mortgages, etc., and provides for paying the assessors therefor, and they draw pay therefor; but the court says they are guilty of no crime and subject to no penalty if they do not assess even when ordered to do so by the Supervisors.

E. M. D.

Tulare, June 22, 1889.

PENNSYLVANIA has a new Grange.

Watsonville Grange Meeting and Pomona Feast.

We rejoice to learn that the open meeting of Watsonville Grange last Saturday was a first-rate success. Having a Pomona Feast and open meeting and inviting all farmers and friends of agriculture in the manner adopted by Watsonville Grange is a new feature of the times. It was an experiment which has happily materialized, we trust, in a standing example to be followed happily and profitably by many another Grange in our circle. We learn that the attendance was good and very creditable.

Bro. Pilkington of Santa Cruz Grange made one of his effective magnetic speeches. Although we have not the word for it, we have no doubt that Master Edith Z. Roache and Bro. A. P. Roache, deputy, added much by their talent to the interest of the occasion. We hope to have a fuller report of the whole proceeding.

We give the address of welcome, which was delivered in an excellent and touching manner, richly imagined by all who have listened to Sister Josie Roache's recitations at the State Grange meetings. This able address will give an inkling of the quality of the literary entertainment. The Pomona Feast we know must have been well up in the scale of good Grange "fixings." The best thing of all that we can say of the occasion is that seven or more applications for membership have already been secured, with a prospect of half as many more. Let the good work go on.

Address of Welcome.

The following is the address of welcome delivered at the Watsonville Pomona Feast by Miss Josie M. Roache:

Gentlemen and Ladies, Friends, Brothers and Sisters:

The pleasant task has fallen upon me of welcoming you to our hall and our midst. How cheerfully I respond, for my heart is swelling with joy and pride to see the bright, happy, intelligent faces with us to-day. Faces? Ah, yes:

Faces that are old and wrinkled;
Faces that are young and dimpled;
Faces that bear traces of sadness and sorrow;
Faces that care naught for the morrow;
Faces in whose depths we see trials and misery;
Faces looking forward into life's mystery.

Yet there is a link that binds us all together in one common cause, and it is the magical power of this golden link that brings us here on this bright June day. To friends and acquaintances living in our beautiful valley, but almost strangers (for we see you so seldom), how glad we are that you have made an effort to be with us on this occasion. And we welcome you in the cause of agriculture and in the cause of humanity to our gathering. To you, worthy officers of the State Grange, and our worthy brother from Santa Cruz, and other visiting Patrons that have traveled the weary mile in the cause you love, and in the interest manifested in a sister Grange, need we tell you that you are welcome? Did not you feel in the Patron's grip, in the look of the eye, in the words from the heart, that you were in a Grange home among those who respect and love you? Ah! yes, yes! we hear you answer. And to you, who have just been newly made "Patrons of Husbandry," and are only beginners in the great web to be woven—who are still mystified in the labyrinths of its great workings and undertakings—who almost tremble and wonder, "What it is that comes next?"—shall we lift the veil?—do you see our faces—don't you hear our happy voices saying again and again, Welcome, welcome to our Order, welcome to our shrine, where we pledge fraternal love—sacred and divine. In the name of our glorious Order—in the name of Watsonville Grange—in the name of the people of Pajaro valley—in the name of the brothers and sisters of our golden chain—we extend to you all a most cordial welcome. Open your souls and hearts, catch the gleam of sunshine and happiness, if only for one brief day, carry it to your homes and let its influence be felt there long and lasting.

San Jose Grange Discusses Prunes.

San Jose Grange met at the usual hour on Saturday, June 22, with O. F. Alley as presiding officer and H. A. Brainard as Secretary.

The Secretary presented for examination some samples of prunes cured in San Francisco by the French Prune-Curing Company, in imitation of the real French product. He also presented a very fine late dark cherry from the Quito olive farm, from scions sent two years ago from Italy. It had very firm flesh and seemed admirably adapted to shipping. Though it resembled in form some other cherries, yet its quality was such and its size so large that almost all united in declaring it a new variety to this country, and a very desirable one.

The prunes were examined and tasted by the members, and nearly every one seemed to think they must have been artificially colored and the natural flavor somewhat destroyed by the process to which they had been subjected.

Mr. Wingate expressed himself as decidedly opposed to any method of curing except preserving the fruit in the quickest and simplest way.

The Secretary said it was not entirely a

question of the best way of preparing the fruit, but of preparing it for the market which you will seek. If you are trying to compete with the best French prunes, which are eaten very largely as a confection, without stewing, you must imitate their product as nearly as you can. The taste for the partially cooked French prune is an acquired one. People have been in the habit of eating the sun-cured raisin for the last hundred years, and it is well known that it undergoes a sort of fermentation while curing which must really make it less wholesome than a raisin dried in a day or two in a drier. Yet people have learned to love the old raisin taste, and will not give way to a different fruit, even if it is better. It is, therefore, best to prepare such a portion of the crop as is to compete with the French in the French method.

Mr. Feely said it might take a long time to educate people to like California-cured prunes the best, even if they were better. He did not think the prunes shown were equal to some he had seen and tasted which were prepared by Mr. Leib. He thought we should investigate and find out the best way.

Captain Dunn said he believed it was best to go right on and prepare them in the way which really made the best fruit, and they would win their way into any market. He said that years ago there was no pork in the world which stood as high as the Irish pork, and he had carried cargoes of American pork over to England where it was repacked and branded as Irish and returned to America to be sold at a price which paid for the double voyage. Yet the packing-houses at Chicago and Cincinnati had kept right on packing pork in the American way till this pork was now recognized as the best in the world. We have seen American cheese sent to Europe and returned as the best Cheshire, and yet in time the American cheese won its way to be the best in the world. He had seen the time when a Westphalia ham must be procured when something nice was wanted, but now an American ham suited the most fastidious. So it would be with the California prune if we kept on putting them up in the best way and taking pains to have them neat and in the best order.

The question of co-operation came up, and it was decided to invite a gentleman who had been in charge of a co-operative store to address the Grange on that subject. The theory was well enough, but we needed some practical knowledge on the point.

The attendance was good and the members seemed to enjoy the meeting very much.—*Mercury.*

Literary Committee.

As before mentioned, last year's committee has been reappointed for the coming session of the State Grange, viz.: W. Walter Greer, Sacramento Grange, chairman; Sister M. B. Lander, Alhambra Grange; Sister S. H. Dewey, Temescal Grange; Sister W. Johnston, Franklin Grange; Sister S. J. Cross, Roseville Grange; Sister E. Z. Roache, Watsonville Grange; Sister C. E. Kinney, Temescal Grange; Bro. Norman Alling, Stockton Grange; Sister N. Alling, Stockton Grange; Sister T. W. Maples, Tulare Grange.

Brothers and sisters, it is time to be at work for the meeting at Sacramento, October 1st. We trust that the work of the committee will be ably assisted by many of our best thinkers and writers without waiting to be called upon.

We advise the committee to be active, however, and stir up the dormant pens and voices that all may be well prepared for the coming literary feast.

Washington Grange.

MESSRS. EDITORS:—At the meeting of Washington Grange June 22, 1889, it was resolved to have a free exhibit and fruit festival August 23d, in the town hall at Clements. The exhibit will be in readiness on the 23d, at 3 P. M., and close at 5 P. M.; open at 9 A. M. on the 25th for inspection by the public. At 1 P. M. literary exercises commence, after which all will be invited to sample the fruit. Every one is cordially invited to be with us on this occasion.

SAM C. WATERS, Sec'y.

"CRESTON GRANGE."—Bro. J. V. Webster has made application to Temescal Grange for demits for himself and three other members of his family. He expresses their regrets at withdrawing from the Grange of which he was a charter member, and has been so long faithfully affiliated with. As a corner pillar of that Grange, all Temescals are sorry to part membership with Bro. W., also Sister W., son and daughter, but they still rejoice in the fact that he has long been and still remains a strong pillar of our State jurisdiction; and further, with others, will soon institute a new and vigorous Grange at Creston, his new home in San Luis Obispo county. He expects Creston Grange to be ready to organize on or before the first of September next. Really, it looks as if San Luis Obispo county is destined to become the "banner" Grange county of California unless the Patrons in some other counties look well and early to their laurels.

WORTHY MASTER OVERHISER informs us that he was unable to attend Watsonville Grange last Saturday as anticipated. He is rebuilding his warehouse and irrigation works.

National Lecturer's Bulletin.

Bro. Mortimer Whitehead, Worthy Lecturer of the National Grange, takes up the subject of agricultural statistics in his latest bulletin, as follows:

Farmers in the past have in their business depended mainly upon muscle and too little upon brains. They have worked hard to produce a crop, but have left the business part of its distribution and sale almost entirely in the hands of others. The Grange is slowly, but surely, teaching the farmer that it is just as much a part of his business to sell a crop as it is to grow it, and that he should have as complete a knowledge as possible of all the conditions that affect markets at home and abroad.

Go to a leading manufacturer of wool, iron, or of any article in general use, and he can—mainly through statistics gathered through his organization—tell you the whole business in that line with almost as much minuteness as he can the details of his personal plant. How many are engaged in the production of the same article as himself, amount of capital invested, the "output" of each and all collectively. The supply and the demand, the home and the foreign demand, percentage of tariff protection, average wages, etc. In fact he is thoroughly posted, and his knowledge is power to advance his individual interests.

How many farmers have placed themselves upon an equal footing with the manufacturer or merchant in the statistics of their business? How many farmers can tell the number of farms in their own county, the average acreage of any leading crop, number of head of cattle, sheep or hogs, the probable supply and the probable demand; or even the cost of production upon his own farm? In the old way did not ninety and nine "go it blind" and trust to luck and some one else in these important business matters?

The one great central idea of the Grange has always been education. Helping the farmer to use his brains as well as his muscle. "To systemize our work and calculate intelligently upon probabilities." And as muscle united makes a stronger team, so brains united give a strength and power to farmers that they never knew before.

The practical application of one of the declared "purposes" of the Grange, viz.: "To systemize our work and calculate intelligently upon probabilities," has already brought forth many good crops, as in the purchase of farm and farming supplies in a local way, or the sale of some staple crop in a better market where our State organization has prevailed, as in the sale of the peach crop of Delaware and New Jersey; the wheat of California; the maple sugar of Vermont; potatoes in Maine; hogs and cattle in the Western States. It has been done, it is being done, and will be put into practice more and more, as farmers learn the advantages offered them through that complete organization that has stood the test of 22 years—the Grange.

But even into a still broader field have farmers of the Grange lately extended their inquiries with a view to a more intelligent "calculation upon probabilities."

At the last session of the National Grange the following, introduced by Leonard Rhone, of Pennsylvania, was adopted:

Resolved, That the Commissioner of Agriculture be requested to inquire, through the consular system of Government or otherwise, what foreign nations are now importing agricultural products, and ascertain what possibilities there would be to establish trade relations for the disposal of our surplus agricultural products; also to inquire what agricultural products are now imported that our country and climate are capable of producing, and lay the same before Congress, and publish for the information of farmers.

Acting upon this, Hon. J. M. Rusk, Secretary of Agriculture, in the May report of the Department upon the condition of the crops—"Report of the statistician, New Series, Report No. 62"—takes up the subject, and in some twenty pages of valuable tables and statistics gives our farmers much upon which they can think and study, and "calculate intelligently upon probabilities."

This is an excellent beginning of a great work in the interest of agriculture, and if followed up by intelligent action of organized farmers in the Grange, co-operating with the Department of Agriculture, must result in great good to agriculture.

The Lecturer of the National Grange suggests that members of the Grange and farmers generally send at once to the Department of Agriculture—address Hon. J. M. Rusk, Washington, D. C.—and get a copy of the May report—No. 62—as before noted and read and study it carefully. Let Subordinate and Pomona Granges make its facts and figures a matter of discussion at their meetings. Learn what other countries are producing, what their surplus crops, what they need, what the demand, and then we, with our vast territory, knowing the "probabilities" can "calculate intelligently," and place agriculture in a business way somewhat upon the same footing as other great industries.

PAST POMONA, Clara Deming MacLise, gave birth to a second daughter, last week. She has been dangerously ill during the present week in Oakland, and anxiously attended by her parents, Bro. and Sister Deming of Vallejo. It is now hoped that she will recover.

Intelligent Voters' Appreciation

News from the State.—I am gratified in your issue of June 15th that Mrs. Flora M. Kimball had been elected school trustee for National City, received 112 votes and was the first woman elected to that position in the State. Allow me to correct slight errors. Mrs. Kimball received 121 votes out of 191, there being four candidates, and is not the first lady elected school trustee. Mrs. Flora L. Thomas served one term as trustee in Alameda district, a few miles farther south, and was defeated by one vote at the last election. Mrs. H. H. Thompson, of the County of San Bernardino district, has just been elected school trustee. The San Diego bay region is peopled with progressive men, and they show their appreciation of intelligent working women by their votes. Most of them regret that the women cannot vote, too.

—S. F. Bulletin.

[Mrs. Flora M. Kimball was for some years editress of the Matrons' Department of the California Patron. She was also a member of National Grange, and takes much interest in the Grange cause.]

Sediment in Suspension.

One-eighth of one per cent seems to be a small proportion of sediment to be held in suspension in water, but it makes a liquid as muddy looking as the Sacramento river in flood. A single hydraulic mine in Nevada county, when worked by the "elevator" process and dumping its heavy debris into a receptacle prepared for it, sends down from that basin annually about 500,000 cubic yards of sediment thus held in suspension. That would cover more than 300 acres of land a foot deep with slickens, or it would fill up the Sacramento river a foot deep for say about five miles. Pretty good for one mine worked by a process which professes to retain its debris. A number of mines worked by that process would make very serious changes either in water-courses or agricultural lands, or both. Yet this process is permitted on the ground that it does no harm. It looks like a bad condition of affairs at the best, but there is credible authority to the effect that this process at times gives way to the more primitive method of running the debris away without subjecting it to the "elevator" process. It is reported that when anti-debris "spies" or Government officials are around, the "elevator" is used; but it is expensive to raise dirt 90 feet by water-power, and when there are no persons in the vicinity to ask awkward questions, the "elevator" takes a rest. These facts will probably be brought to the attention of the Government when the report of the commission, appointed by Congress to investigate this question, is received. But in the meantime, what are our local authorities going to do about it? —S. F. Bulletin.

WHAT CRIMINAL LAWYERS COST.—The Visalia Delta says: Several days ago a stranger by the name of James Wilson stole a small clock from Andrew Belz, proprietor of the Pacific House here. After his arrest he desired to plead guilty, but his attorney advised him not to do so. A special venire of 20 jurors was ordered. They were called this morning. Their mileage averages nearly 30 miles each. Thirteen of those jurors live 30 miles and over from Visalia, the greatest distance being 56 miles. The first day's expense to the county on this miserably insignificant case was \$183.75 for jury fees alone. The clock is worth about \$250. Tax-payers, how do you like such things?

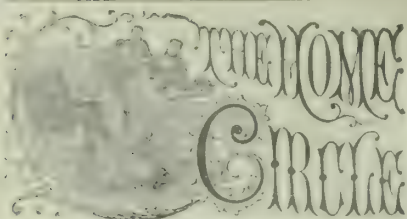
THE GRANGE IN INDIANA.—Bro. M. Truesler, Master of the Indiana State Grange, reports to the Grange Bulletin as follows: The outlook in Indiana is certainly encouraging. Within the last three months we have had the pleasure of welcoming back into the Grange fold four counties that were not entitled to representation at the last session of the State Grange. It does seem to me that if each officer and deputy would be willing to give a little time and labor in the good work, Indiana must soon come to the front, for farmers everywhere are asking, What shall we do to be saved? The answer should be repent, and join the Grange.

CINCHING THE SADDLE.—Gov. Francis of Missouri has signed the "Newberry" bill, which prohibits music, cards, dice, billiard tables, pool tables, bowling alleys and boxing gloves in saloons. The bill goes into effect July 1st. This is the most stunning blow the saloon has ever received in Missouri. A forfeiture of license and the closing up of the place is the penalty of a violation of the law.

We should like to hear from the Granges in Nevada, Plumas, El Dorado, and Placer counties, which seem to have been more than usually quiet lately. We hope correspondents in other counties will take the hint. Call out some vigorous meetings, and give us a good report to repeat around the circle, and inspire new life in all quarters.

BRO. A. P. ROACHE, we see, has been appointed by the Governor as one of the Agricultural Board of his district. A splendid appointment.

THE TEXAS STATE Grange Fair is receiving large attention from the Patrons of that State, and a grand exhibit is expected.



Our Flag.

[These patriotic verses, written by Mary A. Griffin and delivered at the Decoration Day exercises of the Grass Valley public schools, well befit the anniversary of Independence Day also.]

Flag of our country! so gracefully turning,
Floating and catching the breeze in each fold;
Waving to-day o'er our temple of learning,
How many a song its spirit thy glories untold!

Breathe we such love as the soldier who bore thee
Onward through shot and shell, fearless and proud,
Only to fall on the battle-field gory,
Pulseless and stark, with thy stripes for his shroud?

Lived we in days when our stalwart young nation
Struggled, nigh hopeless, 'gainst tyranny's tide?
Saw we the hour when, thro' war's desolation
Thou wert borne safely to victory's side?

Sings not the world of thy rescuing mission?
Needs there a voice to proclaim what all know?
Need the freed slave paint the heart-cheering vision
Seen in thy folds twenty-six years ago?

Need we tell how the late cyclone terrific,
Sinking the war ships in Apia's bay,
Saw thee unfurled o'er the dark, drear Pacific,
Only to mirror our sailors' dismay?

How cheer on cheer pierced the storm's wild com-
motion,
Ship answering ship when "our flag" burst in
view?

Doomed were the many to graves in lone ocean,
Yet, e'en in death, they were patriots true.

Hail, dear-loved flag! List, our glad exultation!
In this, thy "growing year," fair eighty-nine,
Forty-two States in our Union hold station,
Four bright new stars in thine azure now shine.

O'er soldiers' tombstones fond watch thou art keep-
ing:
Blood-red, snow-white, blue as heaven o'erhead;
While children yearly beneath thee are heaping
Blossoms, tear-gemmed, on the graves of our dead.

Crave not our eloquence—history's pages
Praise thee far louder than man's feeble voice.
Beautiful flag! thou wilt gleam down the ages,
Bidding all peoples be free and rejoice;

Bidding them work for man's betterment ever,
Banishing hatred and ignorance far,
Bowing to worth, but to tyranny, never!
Loving sweet peace, yet intrepid in war.

Land far and wide now sing freedom's hosanna;
Yet, of all flags thro' this wide earth unfurled,
None can compare with our own starry banner—
Liberty's beacon enlightening the world.

How I Wrote My Novel.

(Concluded from last issue.)

[Written for the Rural Press by MAID-OF-ALL-WORK.]

The Granger went away for a week and I had Dolly come over to help me while he was gone, and I was surprised to see what an interest Miriam took in her. One day, when I sent Dolly out to collect the eggs, while I worked over some mistakes in her picture, Miriam said: "She is a lovely girl, isn't she? and she paints well, too—she is so fresh and original, and so innocent. How could any one ever do her an injury? I would as soon think of wronging an angel."

"On yes," I said, working on; then later: "You rather fancy fresh and bright people, do you not?"

Miriam laughed. "I confess I do like them. I am tired of flirts, and I am tired of flirting."

Miriam came to stay two weeks and she stayed six and went out with Willie a great deal for moonlight drives and Sunday walks, and although she tried to look languid and uninterested, I could see her growing happier and healthier every day. When she was about to go to the train to go home, she said:

"Now you will be down soon, won't you? When Mr. Kimball is there, we—"

"What! is Willie going to be there?"

"Well, yes, I believe so." She was carefully smoothing on her gloves. "He wants to read law a little; he says every farmer needs some knowledge of law, and if mamma will consent to board him I will see that he gets into good society."

"You are a darling," I said; "how kind you are."

After she had gone, I worked faithfully on my novel for awhile. It was easy to work, as I believed I had a genuine love-story to work from. But Willie did not go down immediately, and in a few weeks something came up to again call my attention from my own work. The young people wanted to form a Chautauqua Circle, and wanted me to get it into working order. Willie was deeply interested in it. He said to me one evening over my front gate: "You know there are some very bright young people here who cannot go away for improvement, and we must help them."

"But," I lamented, "they will need so much urging."

"There is Miss Dunton; she will help; they will all come for her."

"Dolly?" I said. "I hadn't thought of her."

"She will be a great help," he said eagerly.

So I organized a class of ten, and it was quite a sacrifice on my part, for they branched into all sorts of musical and literary entertainments in aid of the W. C. T. U. and the Church Aid Society, and it was nearly spring before I could settle my mind down to a creative condition. And then Dolly worried me, too. She worked faithfully enough, dear girl; she was the best Chautauqua reader we had; she even read all the reference-books and wrote lovely little essays in her class-work, but she seemed so different from my bright, loving Dolly. I was so busy I did not notice the change till after Willie went away; then I began to see that she was sad and listless and worked more for the work's sake than with any interest and pleasure. I tried to cheer her up by reading Miriam's letters to her. Miriam gave glowing descriptions of the concerts and musicals which she and Willie attended. She always spoke of what great things society was doing for him and how his voice was improving. Dolly never made any comment to these letters, but always sat silent with her eyes downcast, so I concluded that, like myself, she was not greatly interested in music.

When haying-time came we disbanded our C. L. S. C. until after harvest. Dolly resumed her painting, very pale, but gentle and lovely. And the next I saw of Willie he was cutting hay in the field adjoining us, and when I received a note from Miriam that she was coming up to see the beautiful haying-time, I was quite afraid that my novel would terminate before it was written.

So I postponed the washing one day and dashed into a new chapter with "Willie and Miriam in Tuscany." They were seated on a stone fence under the vines of an old chateau, her pure, spirituelle face lying in fine relief against his square, manly shoulder. He was saying tremulously:

"Is there not yet some mysterious fate that will out this golden thread of happiness? Sometimes in my dreams, darling, a shadowy hand—"

Just here I was interrupted by a noise of wheels and a sound of laughter and merry voices, and several said "Whoa," and several said "I'll get out," and I had barely time to hide my manuscript under the rug when, with a gust of merriment and a swish of starched skirts, three of my favorite girl friends rushed in.

"Come on; we are going for a picnic. Put on your hat."

"But my dinner for the men," I gasped.

"Oh, never mind; set a luncheon—we'll do it."

And they rushed out and set my table in a twinkling, and the naughty girls wrote a saucy note and pinned it on the table, and one got my shoes, and another found my sketching-book, and in ten minutes they had me tucked into the three-seated wagon with a crowd of boys and girls, and we were rattling off toward the hills.

After they found a place by the creek, they left me to make tea and watch the horses, and the whole party rambled off. I made a good chaperon, because I would rather sketch than watch anybody.

Very soon another wagon-load drove up, and in it was my dear Dolly. She looked so pale and sad that I hardly knew her, but she kissed me lovingly and sat down by me while the rest of her party wandered off also.

"Dear Dolly," I said, "you are not yourself. I fear you will be sick; you are studying too hard. When Miss Grey comes up you must stop your painting for a time."

Here Dolly threw herself down in the grass and put her face in my lap and began to sob.

"Why, my dear, what is the matter?" I cried.

"Oh, yes," Oh, so slowly and sadly!

"But, my child," I said, "you are not jealous of Miriam, are you? She is a lovely girl, but she never can be to me what you are. You are my dearest friend and helper."

Dolly sat up and put her head lovingly on my shoulder, but she sighed and said nothing.

"Why, here is Miriam now!" I exclaimed, rising. For there was Willie in a fine new buggy with Miriam by his side. I ran forward to meet them. Miriam was so gay; she had telegraphed me of her coming, she said, and as I wasn't at the station to meet her, Mr. Kimball kindly volunteered to bring her out, and as he was already coming to the picnic, she was glad to come too. Willie lifted her out with quite an air of ownership and I made them welcome, but Dolly had disappeared. After a few moments they also wandered away. Willie was unusually grave and quiet, and I wondered if he had not been saying something serious to Miriam. As no one came back, I took my sketch-book and went off to one side in the shadow of a great rock, where I had a very good view of the camp. I laid out my sketch, and was progressing nicely when I heard the crackling of brush and some one came up behind the rock. In a moment I heard Willie's richly modulated voice:

"Now you shan't doubt me any more. You must listen to my story. I am not half good enough for you, but I love you. Listen, I do love you. Look up."

I couldn't hear the answer, but it was something gentle. Then he continued:

"You have treated me wretchedly; you have pretended to like everybody and everything

else but me. If you hadn't come here to-day I should never have tried again."

I had been calculating my chance of escape, and when I saw a crowd coming into camp with noise and laughter calling for tea, I gathered up my skirts and ran. We all had a merry lunch together. Miriam was quiet, as I thought a newly engaged girl ought to be. Dolly was shy as ever and Willie was merry with everybody.

Miriam went home with me in the wagon I came in, and as I had to go to work immediately getting supper, I supposed that in the evening she would tell me of her engagement. But she said not a word, though she looked calmly happy in her plain gray silk dress, and after she had sung one song for us she threw a lace scarf over her head and went out in the moonlight. I thought probably she had gone out to meet Willie in the lane, so I took my sewing (I always sew when I am nervous) and sat down by the Granger.

It wasn't long before I heard the sound of Willie's buggy. I dropped my work and rushed out then. I knew he would tell me. He was tying his horse under the locust trees, and sure enough there she was in the buggy. I went out to the gate and Willie came and took my arm.

"I came to tell you of my happiness," he said, "and to ask you to be a mother to my bride that is to be."

Then he lifted her out of the buggy and put her in my arms, but it wasn't Miriam—it was Dolly, and she lifted her old happy face to be kissed.

Surprised as I was, I kept my senses. "Then there won't be any more pale face and sad eyes," I said.

"Nor any more melancholy law students," said Miriam, appearing by magic. "I just came up to patch up those broken hearts. I knew they never would do it alone."

"Not while I was so jealous of you," whispered Dolly, drawing her up to us.

"Well, dear, I forgive you," said Miriam, caressing her.

That evening, while Miriam was brushing out her long hair in our room, she became very communicative.

"You know I became engaged to Whistler, the artist, before he went abroad, but I declare I almost lost my heart to your handsome Willie, but I found her picture in his Civil Code, and that saved me."

Sweeping-day I found my novel under the rug, and for Miriam's sake I put it in the fire. And Miriam came no more to the country.

Sauce for the Gander.

NOTICE—MY WIFE BETSIE, HAVING LEFT my bed and board, all persons are hereby warned from harboring or keeping her and from trusting her on my account, for I am determined to pay no bills of her contracting. JOHN DOE.

Very well, then, we shall trust Betsie on her own account. Her word is good for anything she may order at our store. You doubtless imagine that you have been supporting her in the past; but we all know that she has paid her way all these long years that she has been cooking your meals and sewing on your buttons.

But now Betsie and you are out, and she is about to retire from the old firm, of which she has so long been a silent partner, and go out into the cold world to fight the battles of life alone. Would it not, then, be more manly of you, instead of handicapping her with this public notice, to sit down and write her a "recommendation," as you would a time-tried servant who was about to leave your employ to look elsewhere for a situation? You could say to whom it might concern that the bearer, Betsie Doe, had kept house for you for a long time; that she is careful and economical; that it has been mostly owing to her principles of protection to home industry that you have been enabled to keep the balance of trade in your favor and to thus accumulate quite a surplus; that her charges are very reasonable, in fact, during the twenty years or more she has been with you her only wages have been her board and clothing, and that you can recommend her to any one wishing the service of a good housekeeper. There now, sign that! And let's have done with these contemptible beware-of-the-wife notices.

In nine cases out of every ten there is not as particle of danger of the wife running a bill on the husband; and in the other case it would but serve the old man right if she did. The men appear to have had a monopoly of this style of advertising for some time. The other day, in looking through an old newspaper published in 1799, we observed one of these notices. How seldom the wife comes into print to repudiate the husband's debts. How frequently the husband leaves his wife's "bed and board" until the small hours of the morning, to stay downtown with the boys and squander community property. It might be mentioned in this connection that the last Legislature passed a law which holds saloon-keepers responsible for all damage done to the husband from selling him liquor. This law in substance says that a wife may serve notice on saloon-keepers not to sell her husband liquor; and if they should sell and he gets drunk, and damage ensues, the saloon-keepers are liable. Good enough. So in the future we hope to see the ladies take a hand and give more variety to the advertising columns of the papers by a few beware-of-the-husband notices.—C. Y. H. in S. J. Mercury.

The Cheer of the Trenton.

[About the conduct of our American sailors during the terrible Samoan cyclone, the London Telegraph says: "Consider the scene and the matchless heroism of this Yankee crew. Almost sure of instant death themselves, they could see the Queen's ship fighting the hurricane and appreciate the gallantry of the effort with the generous pleasure of true mariners. We do not know in all naval records any sound which makes a finer music upon the ear than the cheer of the Trenton's men. It was distressed manhood greeting triumphant manhood, the doomed saluting the saved. It was pluckier and more human than any cry raised upon the deck of a victorious line-of-battle ship. It never can be forgotten by Englishmen speaking of Americans. The dauntless cheer to the Calliope was the expression of an immortal courage."]

Our anchors drag and our cables surge
At every shock of the huriling sea,
While the mist of the breakers veils the verge
Of the reef of coral under our lee.

From east by north to the north-northwest
The wild typhoon veers sweep on sweep,
And from moment to moment the cross-wave's crest
Buries our waist in its sidelong leap.

Under the blows of our plunging screw
The whitening breakers foam and churn,
But for all that steam and steel can do
We are drifting slowly, astern, astern!

On our starboard quarter close aboard
We see the stanch Calliope loom,
While the black flood from her smokestack poured,
Covers the sea like a pall of doom.

Her topmasts struck and her yards braced sharp,
She is headed out for the open main,
While her shrouds, like the strings of a giant's harp,
Scream to the touch of the hurricane.

We from our flagship Trenton's decks
Are watching her battle in hope and dread
As she threads the throng of the tossing wrecks,
Now beaten backward, now forging ahead.

She with the red-cross ensign aloft,
And we, our starchy banner below,
Lie beam to beam as the frigates oft
Ranged in old sea fights long ago.

We watch the weight of the tempest fall
On her flooded decks and her reeling bow,
And our hearts are beating one and all
For we both go down should she foul us now.

Through the darkest night there's a gleam to break;
Fathom by fathom she forges past,
Till we know by the swirl of her eddying wake
That her seaward struggle is won at last.

The Admiral tosses his sea-cap high,
As from station to station is passed the word,
And over the uproar of wave and sky
The thunder roll of our cheer is heard.

And back from the Briton's taffrail came
The gallant, grateful and proud reply,
That stirred our hearts like a pulse of flame,
The seamen's and brothers' last good-by.

Oh, blood is thicker than water, and long
Will England's memory hold it dear,
And the tale be told in fo'castle song
Of the flagship Trenton's parting cheer.

—Walter Mitchell in New York Sun.

The May Storm in the Sierras.

[Written for the Rural Press by MARY P. ARMS.]

When the early May days came to us, and the farmer had well-nigh finished sowing his grain, he began to feel that the heavy March storm was quite insufficient for his needs. The outlook gave no promise of any hay crop throughout the greater portion of our valley, and the newly plowed fields were already thirsty for moisture, when heavy winds, lowering skies, and numerous twinges of pain felt by those given over to rheumatic affections, all seemed premonitions of an approaching storm, which began May 4th, with what the farmer calls a "squally day," in which those who "were not up to the season's front" worked persistently to get their grain into the ground. When night came we found ourselves glad over the day's storm, and not anticipating its continuance.

But on Sunday morning, May 5th, to our surprise "we gazed upon a world unknown, on nothing we could call our own." The green of meadow and grain, and the newly plowed earth, were alike covered with snow—not a soft, light mantle, but a mass of heavy, wet, clinging whiteness. The fragrant lilacs with their budded plumes of purple were laid upon the ground.

The plum trees, whose white blossoms had been scattered like snow in the last days of heavy wind, were more heavily loaded with moist snow than they will ever be with fruit. Snow was everywhere, mingling with the pink and white of the apple-blossoms and the tender green of the poplars, which were weighed down in fantastic shapes.

This storm continued into the fifth day, storming every day, and more or less at night, until the oldest residents here "agreed that such a thing had never been thought of, heard of, much less seen."

Another fact remarked upon was the unusual warmth of the storm. To the farmer in many cases with empty barns who was obliged to find shelter and food for cold, hungry animals, and the housewife put to her wits' ends to find comfortable places for a hundred or two young chicks, the storm brought work and inconvenience which were borne with fortitude; for all those days of snow were fraught with so many promises of good that their disappointments might well be accepted. Among the prettiest sights those five days of storm offered was on

Sunday forenoon. On going to the door, a silver-leaf poplar tree was literally filled with robins. Who that has read Whittier's exquisite rendering of the beautiful myth concerning this little bird can ever see "the poor brown ruddy the breast-burned bird" without recalling it? The poor little creatures had come to seek their summer lodgings. Many of them found their death instead. How I longed to gather them all into the warm home-rooms! The number and variety of birds which came during those days of storm showed us how poorly we realize the extent of our possessions. We had thought there was a poverty of our feathered friends here, supposing few of the smaller birds were to be found with us in large numbers save the blackbird and the swallow; while the meadow-lark and dove were next most numerous, with apparently a small number of half a dozen or more other varieties. But the birds which came with those days of storm were a revelation to us of the extent of our riches—robins, bluebirds, orioles, merry little snowbirds, swallows, with their "twitterings foolish and sweet," meadow-larks with the glad notes of their spring songs; all of these and more were on trees and fences and the snow-covered earth until we thought with John Hay, "How did they get there? Angels."

Another thought the storm has brought to us. How readily the forces of either human or plant life often recuperate after having been disturbed. It seems but a little behind yesterday that the budding roses lay flat upon the ground. To-day they are blushing red with the heart of the June and reflecting the gold of the summer's shine.

Beckwith, Plumas Co., June 9th.

A Mother's Experience in the Flood.

The accounts of the great Pennsylvania disaster which are arriving by mail are full of sadness, and to enable one to better understand the deep woe of the afflicted people, we take the following from the New York Tribune:

A pretty, pale little woman told part of her sad story to-day, as she nervously clasped and unclasped her hands and cried in a quiet, heart-broken way. Years ago in the Virginia valley, somewhere near Winchester, this sad little soul met and loved a hard-working engineer, named Fenn. They were married some years ago and came to Johnstown, where they had a neat, comfortable home. Fenn made good wages; their seven children were always well clad, and the mother lived with her life concentrated upon them. On the afternoon of the flood, Fenn went to the butcher's and passed out of this short history in the waters. When the tide came into the Fenn house, the mother gathered the little ones in the parlor and told them not to be afraid, as God was there and would guard them. Then they went to the second floor, and again the little mother talked of hope and bade them be of good cheer, for papa would come soon in a boat and take them away. At last the family were forced to the top story. The rooms were low, and soon the heads of the mother and children were beating against the ceiling.

"Mamma," said the eldest child, a girl, "wouldn't it be better to go outside and die in the open air?"

"Yes, dear," said the mother; "we'll make a raft and all go down together."

She sought her own and the children's way to the window and opened it. She caught a piece of plank, and on it put the eldest child, with a hasty kiss and a "God bless you." Then she let it float away into the darkness and roar of the waves. Six times were these frail barks freighted with precious cargoes and argosies of pious trust. The children were frightened, but obedience was part of their creed and they made little protest. Now came the turn of the last child, Bessie, the four-year-old. One can fancy what it meant, the last and dearest. There was scarce breathing space in the room below, and if haste was not used death would come at once. To a broad plank Bessie was fastened securely and was blessed as had been the others.

"I loved them all; oh, I loved them all," said the mother, "but I had two kisses for Bessie, for she was Tom's favorite and was such a good child. She put her arms about my neck and said: 'You know you said God would take care of me always, mamma. Will He take care of me now?' I told her He would and she need not fear, and then she was carried away. 'I'm not afraid, mamma,' she called out, and I heard her, although I could not see her, and that's all, except that the roof was torn off and I floated off on it, and some Italians saved me at Kernville, sixteen miles from here."

"And the children, Mrs. Fenn? I hope they all escaped."

"We have found two of them dead, Bessie and George, and there is not a mark on Bessie's face, and oh, I am so tired! They're all gone, every one, eight of them, and I'm going home to Virginia, after all these years, to rest and try to think."

A LITTLE child, playing with her kitten, got a rather severe scratch from her pet. Her lips trembled for an instant, and then she assumed the commanding attitude which her mother had assumed toward her under somewhat similar circumstances, and extending her hand, said sternly:

"Kitty, dive me that pin!"

YOUNG FOLKS' COLUMN.

The Faithful Workers.

[Written for the Rural Press by ALICE McCABE, aged 15 years.]

"Well, girls, as long as we have succeeded in graduating, we must not be idle, but help the poor people. I, for one, intend to be very busy."

"Oh, that's just the brightest idea in the world. I, for one, will help you, and I know all we girls will do a great deal of good," answered Katie Ray.

The reader will doubtless want to know where these girls were, and who and what they were, so we will leave them talking together and endeavor to find out.

The name of the place, for it is only a small town, is Haverhill, in Western New Hampshire, and the girls are daughters of the townspeople, who are all well-to-do, kind, good, generous, and hospitable, and, as a general thing, well educated for the people of so small a village, and there probably never lived a happier lot.

Everybody knows everybody else, and many a jolly evening was spent in an old-fashioned dance or party, where they all went for a good time, and not to see the way Sally's new dress was made, if it looked nice; or how Mrs. Smith's hair was dressed. Those people never had such ideas in their heads.

It was a very prosperous place. It had only one church, and the good clergyman could not come more than once in two months, but the people were faithful and did not complain.

The schoolhouse was built of logs, and the children who attended it learned reading, spelling, arithmetic, a little geography, and if they were well versed in these branches, they received their papers and graduated.

But I am afraid we are leaving the girls talking too long, and not knowing what they say, so we will now return to them.

"Cecil, how do you always think of such nice things? Of course we must get up a club right away. We can make dresses and everything else for those poor children in Lancaster. Papa said last night that they were like crows and didn't look much bigger than a corn-cob. We'll have you president and Miss Dale secretary," replied Lulu Hawster.

So without more plans it was agreed to, and the girls were making up their minds as to whether it would be a good plan to have the young men drop in after tea and help them "cut the dresses and run the machine," as one of the girls roughly expressed it.

Cecil Stafford was always the leader of the girls, and a better girl or a prettier one never lived. She was innocent of sin and the great cruel world. She was a good friend and daughter, and another person, whom we will hear of later, thought she would make "a splendid partner."

After many consultations and no end of good-natured bantering among the girls, the society was organized under the name of "The Faithful Workers," and the first meeting was to be held at Cecil's residence the following Wednesday afternoon, promptly at 1 o'clock.

The day and time arrived, and with the hour of one the girls were busy having a good time cutting and making the various articles which President Cecil gave them. How those busy fingers and tongues (the latter especially) worked, and at the end of the afternoon what work had been accomplished!

They had decided at their first meeting that for one month the sessions should be strictly private. Thereafter once a month the young men would come in the evening and they would have a general social time.

The first month passed so quickly that the girls were really astonished when one day Secretary Dale informed them that the next week would be their social. The afternoon of that day was also the time set for the distribution of their month's work. Gathering their things together, they found they had three gingham aprons, two skirts and three pairs of knitted stockings.

And now the question arose as to what disposition they should make of them. It was finally decided to give them to a poor woman whose husband had gone to California five years before, and as the poor lady had received no tidings from her absent one during all those dreary years of poverty and distress, she now believed he had gone to his eternal home.

Accordingly the "Faithful Workers" betook themselves to the lady's humble home, which they found even more destitute than they had expected.

Two of the children had been ill, and the presents brought a balm of comfort to the sore heart of the mother, while the children were almost frantic in their great joy.

That evening, after the young folks had enjoyed themselves to their heart's content, with games, dancing, music, and all the usual accompaniments that youth knows so well how to enjoy, they seated themselves around a little table, laden with all the delicacies the season could supply.

In the midst of their gay chatter, one of the young gentlemen said:

"Well, girls, this is jolly! Is this the kind of charity your society is organized for? It is appreciated, I assure you. Eh, boys?"

Whereupon Lu Claves exclaimed: "No indeed! I should think not! If you could have

seen us this afternoon, you wouldn't have asked that question."

"I'll wager," said Rob Chester, the tease of the crowd, "you girls spent the greater part of the afternoon sympathizing with the looking-glass."

This brought forth a volley of reproach from the girls, and the story of their afternoon's adventures was told in full.

The sympathy of the boys was at once enlisted, and Rob was the first to say, "See here, boys! We mustn't let the girls get the best of us. We can't make aprons and knit stockings and such, but we can take down a load of provisions to keep them from starving."

The proposition was heartily accepted by all the boys, all of whom were earning good wages.

The boys thought they would be too busy during the day to attend to it themselves, so the girls agreed to get the things most necessary and the boys would settle for them. So the following evening the girls and boys brought down the things and the lady was once more made happy. Thus ended the first good month, and many others like it followed.

Not many months after, several of the young men were on their way together to one of the socials, when one of them remarked: "I say, boys, don't you think we have right here in our own little town the finest set of girls to be found anywhere?"

"I do that," said Rob heartily. "Especially one," chimed another of the boys.

Rob made no reply, but he gave them a look that spoke volumes.

An announcement that appeared in the county paper before another year had rolled around told very plainly what Rob's thoughts had been.

This announcement was followed by another and another, until not one of the original circle remained.

Rob and Cecil were the first to break the chain, and after that the circle dissolved rapidly. The good work went on, however, for other girls and boys took their places, and the good seed sown grew and blossomed.

Turlock.

GOOD HEALTH.

THE CURE OF ANGINA PECTORIS, OR BREAST PANG.—Angina pectoris (agony of the chest) carries off many people, the last of whom, according to the newspapers, was the novelist Rev. E. P. Roe, who expired in one day because of its crushing anguish, writes Montrose A. Palmer, M. D., in *Belford's Magazine* for November, 1888. Major-Gen. George B. McClellan (according to the published reports of that time) likewise succumbed after 24 hours of uncontrollable pain. Just how these patients were treated I am unable to say; but Dr. Richardson of London, long before Gen. McClellan's death, had received a prize of 25,000 francs from the Academy of Medicine in Paris, for having discovered an almost infallible remedy for angina pectoris by the administration, in the very small doses, of 1-100 to 1-25 of a grain of nitro-glycerine! This discovery entitles Dr. Richardson to the never-ending gratitude of every suffering man, woman or child, afflicted with angina pectoris. I know a number of persons who always carry tablets of nitro-glycerine with them, and I am equally certain that all these people, by the use of nitro-glycerine, are living in comparative comfort, who would otherwise have fallen under the insupportable torture of that form of heart neuralgia, the most dreadful of all pains.

HEADS UP.—An erect bodily attitude is of vastly more importance to health than most people generally imagine. Crooked bodily positions, maintained for any length of time, are always injurious, whether in the sitting, standing, or lying posture, whether sleeping or waking. To sit with the body leaning forward on the stomach, or to one side, with the heels elevated on a level with the hands, is not only in bad taste, but exceedingly detrimental to health; it cramps the stomach, presses the vital organs, interrupts the free motion of the chest, and enfeebles the functions of the abdominal and thoracic organs, and, in fact, unbalances the whole muscular system. Many children become slightly hump-backed or severely round-shouldered by sleeping with their heads raised on a high pillow. When any person finds it easier to sit, or stand, or walk, or sleep in a crooked position than a straight one, such may be sure his muscular system is deranged, and the more careful he is to preserve an upright position and get straight again the better.

SEVERAL COMMON MISTAKES.—Here is a list made by an exchange, of mistakes which it characterizes as "serious," and into one or more of which the reader will probably find he is in the habit of falling more or less frequently. These mistakes are: To labor when you are not in a fit condition to do so. To think that the more a person eats the healthier and stronger he will become. To go to bed at midnight and rise at daybreak and imagine that every hour taken from sleep is an hour gained. To imagine that if a little work or exercise is good, violent or prolonged exercise is better. To conclude that the smallest room in the house is large enough to sleep in. To eat as if you only had a minute to finish your meal in, or to eat without an appetite, or continue after it has been satisfied, merely to satisfy the taste. To believe that

children can do as much work as grown people; and that the more hours they study the more they learn. To imagine that whatever remedies cause one to feel immediately better (as alcoholic stimulants) is good for the system, without regard to the after-effects. To take off your proper clothing out of season because you have become heated.

WHAT MEATS POISON.—When people are poisoned by eating tainted meats it is not because there was poison in the meat before the can was opened, but because the meat had been allowed to develop the poison of putrefaction after the can was opened. For instance, it was not the tinned salmon that poisoned a family who had eaten it with impunity the first day after it was opened, but it was salmon that was spoiled by 48 hours' exposure to the hot and humid atmosphere. It is very rare that any one is made sick by metallic salts in canned foods. The only metal that may cause poisoning in the case of these foods is lead, and this is not likely to be found in tinned foods. It is, however, possible that poisoning may occur from the solder, but it is highly improbable, from the excellent manner in which the tins are made.

DOMESTIC ECONOMY.

A Cooking-School in S. F.

The Women's Industrial and Educational Union have cooking classes, which meet every day at 325½ Geary St., in this city, and are taught by Miss Kate Whitaker, formerly a teacher in the London International Cooking School. Miss Whitaker lately told a *Call* reporter: "You would be surprised to see how much interest the girls evince in learning to cook good, wholesome food and prepare it in an attractive manner for the table. I do not give my pupils a mere set of rules to learn by heart, but make them learn how to cook by their own attempts and by watching and helping others. Of course I allow them to take notes occasionally, but I try especially to awaken in them a perception of the right and wrong of cookery, and to make them cook independently of exterior rules."

"The first thing my pupils do is to learn how to make, attend and regulate a fire. This is their first lesson, and they have to learn it before going a step further. Then they learn the proper manner to set a table and the order in which the various courses of a meal should be served."

"Bread-making is another important lesson. The pupils learn how to make yeast, to mix dough, how long it takes for the dough to rise, how to knead it and make it into loaves, how a loaf should look and feel when it is thoroughly cooked—in short, when they finish the lesson they must be able to make bread that is fit to go on a king's table, without any possibility of its being heavy or sour."

"Roasting and boiling of joints is another thing which they learn, together with the preparation of gravies and sauces. Soup is a specialty, and all who taste our dainty potages pronounce them perfection. All styles of preparing potatoes are taught, besides attractive and palatable ways of dishing up cold meats. The more intricate branches of cookery are taken up later."

NUT CAKE.—One-half cup of butter, 1½ cups of sugar, 3 eggs, 2½ cups of flour, 1½ teaspoons of baking powder, ½ cup of milk, 1 cup meats or any nuts preferred.

BROILED HERRINGS.—Scale and cut off the head; clean and wash them dry in a clean cloth; dredge with flour, salt and pepper, then broil over a good bed of coals. Serve with onion sauce, or a little drawn butter.

GEMS.—Three cups of flour, one teaspoon of salt, two eggs, half-cup of lard, two cups of milk, two teaspoons baking powder; sift the flour with the baking powder and salt, stir, add the lard, then the eggs beaten, and last the milk. Bake in gem-pans.

GOOD COFFEE.—Take the amount of water you generally use for coffee, put into a saucepan, add coffee (ground), two spoonfuls for each cup. Just before the water boils, throw in a few drops of cold water; take the pan off and strain the liquid through a piece of muslin.

RYE BREAD.—Make a sponge of one quart of warm water, one teaspoon of yeast thickened with rye flour; put in a warm place to rise over night. Scald one pint of cornmeal; when cool, add it to the sponge. Add rye flour until thick enough to knead, but knead it but little; let rise, mold into loaves, place in deep pie-tins, let rise and bake.

EGG SALAD.—Cut in very thin slices six hard-boiled eggs. Place in salad bowl with one-fourth of a cabbage shredded fine. Mix well together, then pour over it the following dressing: Three tablespoonfuls melted butter, one teaspoonful pepper, salt to season, one teaspoonful made mustard, one-half teaspoonful sharp vinegar. Mix well through salad and serve at once.

RAISED GRIDDLE CAKE.—Take a quart of sweet milk, warm it enough to melt a large tablespoonful of butter, add two teaspoonfuls of salt and flour to make a pretty stiff batter. Dissolve one-third of a cake of yeast in tepid water and stir it into the batter. Cover closely and keep in a warm place until morning, when fry on a griddle. If found to be too stiff thin it with a little tepid milk.



A. T. DEWEY. W. B. EWER.

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	1 Week.	1 Month.	3 Months.	1 Year.
Per line (agate).....	\$.25	\$.50	\$ 1.20	\$ 4.00
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One inch.....	1.50	5.00	13.00	42.00

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A. T. DEWEY. W. B. EWER. G. H. STRONG

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SAN FRANCISCO:

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Beecham's Pills—B. F. Allen & Co., New York.

Situation Wanted—"F. A." London, Eng.

Situation Wanted—"C. S." Box 2517.

Situation Wanted—Excelsior, Box 2517.

Seeds, Plants, Etc.—A. Lietze, Rio de Janeiro, Brazil.

Water Pipe—Joshua Hendy Machine Works.

Bulbs and Plants—C. H. Joosten, New York.

Pansy Seeds—Allert Benz, Douglaston, N. Y.

Orchids—John Mathews, Utica, N. Y.

California Roses—W. A. T. Stratton, Petaluma.

Kan-Koo—Los Angeles.

Floral Supply Co., Binghampton, N. Y.

Narcissus—Thos. S. Ware London, Eng.

Dividend Notice—S. F. Savings Union.

Flourished Seedsmen—Carbondale Monti.

Agents Wanted—J. E. Shearer, Cincinnati, O.

Palms, Etc.—John Spence, Santa Barbara.

Seeds, Bulbs, Etc.—J. A. de Vear, New York.

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Horticultural Imp'ts.—Edward & Boesche, S. Barbara.

California Barrels—Local Duty, Ukiah.

Bulbs, Etc.—F. A. Miller.

Optical Goods—Hirsch, Kahn & Co.

Orchids—Hugh Low & Co., London, Eng.

Cacti—A. Blanc & Co., Philadelphia, Pa.

Cacti—Anna B. Nickels, Laredo, Texas.

Seeds, Bulbs, Etc.—August Rolker & Sons, New York.

Cook's Springs, Colusa Co.

Palms, Etc.—Joseph Sexton, Santa Barbara.

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Hose, Etc.—Goodyear Rubber Co.

See Advertising Columns.

The Week.

The midsummer season is approaching its culmination in the National holiday. The observation of the event bids fair to be rather

less elaborate than usual, because the April commemoration of the Washington centenary, which was so hearty and general, seems to have afforded a good escape valve for the annual accumulation of glorification. Still the event retains its deep interest to every American, and we expect to offer matters pertinent to the occasion in next week's Rural.

Harvest work progresses. The disastrous field fires, against which we have sounded so many warnings, continue to devastate, though probably this year's experience does not exceed the average. Fruit is gradually being disposed of, though shipping in large amount has not yet attained last year's figures. The later fruits are now ripening, however, and larger amounts will be recorded at different centers. The fruit crop is, however, on the whole, a little off this year, though some varieties are abundant. Matters are, as a rule, quiet, and our people generally are busy and contented.

April Rains and the Wheat Crop.

We have been much interested in looking over a vast amount of information collected by Albert Montpelier, cashier and manager of the Grangers' Bank, for the preparation of the statistical tables which will soon be issued to the patrons of the bank. These tables have been prepared with Mr. Montpelier's usual disregard of labor required in such matters, and are therefore full and will be of lasting value. Accompanying them there will be a circular alluding to the service of the bank in advances on country-stored wheat and its growing business with all classes of agricultural producers.

A point which we desire especially to refer to at this time is the relation of the rainfall of the spring months to the year's crop of wheat. By his protracted studies of natural conditions and statistics of production, Mr. Montpelier has arrived at the firm impression that the rainfall during, say 30 days following the vernal equinox, or the first 30 days of the calendar spring, has a marked effect upon the outcome. In his circular are the following words:

The year 1880 may properly be called the bonanza year of all the wheat crops ever harvested in California; it amounted to over 1,700,000 tons. The next largest yield was in 1884, when we harvested 1,500,000 tons. The present year, 1889, may possibly reach about the same yield as in 1884, though over 1,000,000 acres more have been seeded than in the years referred to above. In the opinion of the writer, this remarkable anomaly is due to the fact that in 1880 the rainfall in the winter months was certainly favorable for seeding wheat; but behold, from the 6th to the 15th of April we had from 3 to 12 inches of rain, and in 1884, from March 20th to April 15th, we had about the same precipitation, according to localities. Therefore it may be conceded that abundant spring rains in the latter part of March, but in the first part of April especially, is what makes the largest crops in California.

This is taking the two great years and noting the heavy spring rains in connection with them. We compile from Mr. Montpelier's data the following table, which shows the same idea more in detail and cites the record for the years of small product as well as of large, and gives the acreage seeded and the average yield per acre for each of the years named, as well as the local rainfall for March and April of each year:

Crop of	Yield per Acre, Bushels.	Acre Seeded.	Crop of the Year, Tons.	Rainfall, Mar. and Apr., Inches.	Total Rainfall.
1880	32	2,240,000	1,700,000	14.32	24.32
1881	14 1/2	2,367,000	1,030,000	2.80	21.04
1882	12 1/2	2,767,000	1,040,000	4.42	13.56
1883	12	2,800,000	1,018,000	4.21	16.75
1884	14 1/2	3,900,000	1,500,000	10.10	19.40
1885	10	2,800,000	851,000	7.76	16.47
1886	12	3,100,000	1,110,000	7.76	32.27
1887	10	3,200,000	950,000	3.47	11.56
1888	3 1/2	3,180,000	900,000	2.62	10.31
1889*	3	3,300,000	1,500,000	6.30	18.14

*Estimated.

In making these comparisons we have taken the figures of the Sacramento rainfall as a sort of average of the interior points. The figures show in a marked manner the importance of the spring rains which Mr. Montpelier points out. Take, for example, the yield per acre in 1883 at 12 bushels per acre, and that of 1885 with 9 1/2 bushels per acre. The total rainfall for the two years was similar, between 16 and 17 inches, but in the former year there was about 4 1/2 inches in the spring and in the latter less than an inch. Many such deductions can

be made. The fact appears to be, as, of course, many wheat-growers have already observed, that it is the spring rain that makes the crop, fills the heads, etc., and that really we can get along through the winter with light favors from the clouds—just enough for seeding and vegetation and fair, slow growth, providing there is plenty of water in the spring to finish upon. These facts are of much interest to the wheat-grower both for producing and marketing considerations.

Undesirable Immigrants.

Now that attention has turned to the desirability of checking the immigration to this country of the vicious, imbecile or otherwise objectionable portions of the human race, it is well to think of restricting the entrance of minor pests as well. Something has already been done in causing the cleansing of insect-infested plants and fruits, and yet the matter is very imperfectly provided for. Sometimes larger animals likely to prove pestiferous have been drowned on arrival, as for example some rabbits from Australia and some mongooses from Hawaii, but in this department the gates should be more carefully closed.

The great calamity that has befallen our agricultural industries in the importation of the English sparrow, should serve as timely warning to an intelligent people and lead to legislation restricting the importation of foreign birds and mammals.

It seems desirable that a law be enacted conferring upon the Commissioner of Agriculture the power of granting or withholding permits for the importation of birds and mammals, except in the case of domesticated species, certain song and cage birds (to be specifically enumerated), and species intended for exhibition in zoological gardens and museums, which may be brought in without special permits.

The question of the desirability of importing species of known beneficial qualities in other lands is one which sooner or later must force itself upon our notice, and it is highly important that when such experiments are made they should be conducted by or under the control of the Department of Agriculture. And it may be suggested that isolated areas, such as islands of suitable size and character, be selected for this purpose, so that the spread of the species may be prevented if the result renders this course desirable.

This matter is all the more important because, if we are correctly informed, California has recently appropriated \$2000 for the purpose of importing and setting at liberty within the State certain game and other birds. What may happen in our case unless care is taken can be learned from the experience of our sister State Oregon in the importation of Asiatic pheasants. The report of Dr. Merriam, ornithologist and mammalogist of the Department of Agriculture for 1888, gives interesting facts concerning these birds and shows that they have multiplied with great rapidity and are becoming destructive to grain-fields, gardens, etc., and are driving out better birds. Dr. F. S. Matteson of Aumsville, Oregon, writes as follows:

This pheasant is well adapted to take care of himself, is increasing fast, and has evidently come to stay. He is voted a nuisance by the farmer, and I am afraid his introduction will prove a calamity to the country, whatever it may be to the sportsman. He is destructive in gardens, and in patches of berries and small fruits. I am of opinion that he robs the nests of other birds. The quail have nearly disappeared in this locality since his advent, and I think he is to blame. He is pretty good eating, about like our native pheasant, but I am inclined to regard him as a gaudily painted deception and a fraud. But we have got him, and our State law for his protection has yet four years to run. Happily, however, it is fast becoming "more honored in the breach than in the observance." That he will overrun the United States, at least all but the heavily timbered portions of it, I have no doubt. The State that protects him will make a grave error, for he is of no use except as a "game bird," and will crowd out many other useful kinds.

The same facts are reported by others. They show clearly that listening to sentiment and sportsmen is not a safe guide in the introduction of foreign species in the first place, and that to hedge about imported species with long terms of special protection is the second error. We certainly begin to know enough of the character of birds and mammals to form good judgment beforehand whether we are likely to

pay millions in the shape of destroyed crops to procure shooting for coming generations of sportsmen and to preclude the possibility of such a disastrous trade by resolutely shutting out such importations. We are glad that the matter is now receiving public attention, and that the new Assistant Secretary of Agriculture, Prof. Willits, is vigorously promoting the wise suggestions of the ornithologist of the Department in this regard. California with her vast interests in cereals and fruits certainly should be careful what marauders she permits the sportsmen to introduce. Intelligent action in the interest of the whole country should certainly be had from the Department of Agriculture, and some wisely guarded power in the matter should be vested in this branch of the General Government.

PROF. W. A. HENRY, of the University of Wisconsin, with his nephew, Mr. E. K. Adams, of San Bernardino, were in National City last week. The Record says they have been looking over the Professor's twenty-acre tract at Chula Vista, and are very highly pleased with it. They are discussing the advisability of planting the whole tract in lemons, and in case it is decided to do so Mr. Adams will be left in charge of it, when Prof. Henry returns to his post of duty. The latter has been commissioned by the Governor of Wisconsin to visit the California University to transact some business for his State, and will soon visit Berkeley for that purpose.

QUERIES AND REPLIES.

Alfalfa and Egyptian Corn.

EDITORS PRESS:—Will some of your experienced readers answer the following questions? 1. What is the average yield of alfalfa on irrigated land? 2. What is the yield of Egyptian corn? 3. How many hogs will an acre of alfalfa keep, and for how long?—READER.

EDITORS PRESS:—In answer to the questions which you send me, I would state that average land in Lucerne Vale, with a fair set to alfalfa, will yield six tons of hay to the acre for the season, or four crops at an average of 1 1/2 tons at each cutting. The first crop will be taken off about the 20th of April and the fourth about the 20th of September. From the 20th of September until the 1st of March the land will furnish good pasturage; the quantity will be governed by the severity of the weather during the winter months. Much larger yields are often realized, but I give you an average.

An acre of average land well set to alfalfa will keep 20 large hogs rolling fat from March 1st until November 1st, and during the winter months a less number, according to the severity of the weather, as alfalfa will stop growing when heavy frosts are experienced.

Very little Egyptian corn is at present grown in Lucerne valley, but about 10 years ago, when it was grown here extensively, the average yield was about 50 bushels to the acre, but it often went as high as 70 bushels to the acre. It was generally sown in July right after a wheat crop was taken off, thus being the second crop on the land for the year.

All the above answers, of course, have reference to lands well irrigated.—A. F. JEWETT, Hanford.

Killing Morning-Glory.

EDITORS PRESS:—Our motto is, if you wish any information upon topics of interest, inquire of the Rural patrons. And therefore will ask Mr. Orth (under "Hop Notes," page 575, June 8th) in what successful manner he eradicated the miserable morning-glory. I, myself, can give a little experience with the curse and have failed to rout it. Not knowing the evil of the plant until it was well located and spreading rapidly, and not to be exterminated by constant cultivation and hoeing, we then proceeded to devise ways of killing on the spot, as to plow or use a cultivator would scatter and continue its depredations. And just being determined to boss the stuff, we experimented with water 212° Fahrenheit, 60 gallons to the square yard in trenches. In ten days thereafter we looked for results, and found it coming to the surface smiling in all its glory. We have since been told that it can be exterminated by smothering by water or straw covering to the depth of three or four feet. Now will Mr. Orth please rise and explain his method?—A. L. A., Temperance, Fresno Co.

Green Fruit Not Mailable.

A subscriber at Pasadena asks: Can specimens of green fruit be sent by mail? We often see the fruitmen say: "Specimen received by mail."

The question has been referred to the S. F. postmaster, who returns the following answer: No green fruit can be sent by mail. Dried fruits can be sent. Nothing of a perishable nature is mailable. Wm. J. BRYAN, P. M.

Poplar Grove Breeding Farm.

Readers of the Rural are already aware by allusions in our columns and by his attractive advertisements that P. N. Straube is developing his commendable enterprise known as Poplar Grove Breeding Farm with much skill and

records of 2:30 and better. 1st dam, Sweetbriar by Thorndale (2:22½), sire of Edwin Thorne (2:16½), Daisy Dale (2:19), May Thorne (2:22). 2d dam, Ulster Queen, dam of Volmer (2:22) by Ryedyk's Hambletonian, sire of Dexter (2:17), George Wilkes (2:22). 3d dam by Thomas Jefferson, he by Toronto Chief. 4th

Miss Caudle, dam of Erricson (4-year-old record 2:30½).

This mention of distinguished ancestry taken in connection with the forms of the animals as sketched by the artist will give the reader a good idea of the trotting stock which Mr. Straube has on his place, but it is only a small

Combined Harrow and Cultivator.

Mr. S. W. Kilpatrick of Gilroy, Santa Clara county, California, superintendent of Henry Miller's orchard and vineyard near there, has obtained a patent for a combined harrow and cultivator, the invention being the result of his



CLOVIS 4909—THE PROPERTY OF S. N. STRAUBE, ESQ., POPLAR GROVE BREEDING FARM, FRESNO, CAL.

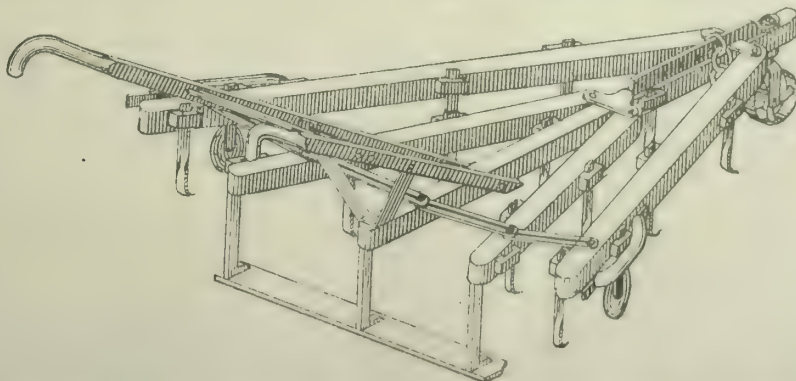
with liberal outlay. The farm is situated about 16 miles southeast of Fresno, two from Wildflower, and eight miles from the line of the S. P. railway. It is improved in the highest sense of the term, as its broad acres of rich alfalfa pasturage, its fine buildings with their modern equipment and the herds of improved cattle and bands of fashionable horses testify. Mr. Straube has done wonders in the development of his laudable breeding establishment during the short time he has given his attention and capital to it, and he is doing a good thing for the advancement of agriculture in the valley, and we trust for his individual fortune as well. By his system of feeding he is showing clearly how a large number of animals can be kept without having a whole county to range them on, and this is a very important matter in the present growth of California.

But we have not space at this time to review the general features of Poplar Grove Farm, but desire rather to present portraits of two of the famous sires which are transmitting their excellent points and qualities to the young stock of the ranch and the vicinity. First is Clovis, whose form the artist has sketched in the engraving on this page. Clovis is seven years old, a beautiful black, 16½ hands high and weighs 1260 pounds. He is a horse of beautiful symmetry and magnificent action. Clovis was got by Sultan (record 2:24), sire of Stamboul (2:14½), Ruby (2:19½), and 15 others with

dam [by Mambrino Paymaster, sire of Mambrino Chief.

Another famous sire of Poplar Grove farm is Pasha, whose portrait appears on page 621. Pasha is a year older than Clovis, also a beauti-

part of his possessions, for he has also Apex, a beautiful bay, somewhat smaller than the blacks which we show this week, and very well bred. He has also a band of 65 brood mares, of which 24 are standard mares and



KIRKPATRICK'S IMPROVED CULTIVATOR AND WEED CUTTER.

ful black, and about the same height and weight as Clovis. He is also a son of Sultan and his first dam Lady Baldwin—both sire and dam being by The Moor, sire of Beautiful Bells, dam of Hinda Rose (2:19½), and Sable, dam of Sable Wilkes (3-year-old record 2:18). The Moor's 1st dam, Sultana by Delmonica, sire of Derby (2:16), by Guy Miller, sire of Whipple's Hambletonian; 2d dam by Mambrino Chief; 3d dam by Downing's bay Messenger; 4th dam

the balance highly-bred trotting mares. Mr. Straube's place is well worth a visit from those interested in fine stock and the keeping of them.

IRRIGATION IN EGYPT.—A project is being considered for adding 250,000 acres to the irrigated area in Egypt, the water being taken from a point so high upon the Nile that the canals shall never run dry.

22 years' experience as an orchardist and vineyardist. The merits claimed for this invention are its practicability and the thorough manner in which its work is accomplished. The machine is light, durable, and yet inexpensive. It can be handled by one horse, or a full team of four animals may be used with it. This is owing to its method of construction, which by a simple arrangement can be made to depress or elevate the drag-beam, thus cultivating or harrowing light or deep as may be desired.

The frame is V-shape, as shown in the engraving, and is constructed of wood, heavily braced with iron. Sixteen chisel-pointed steel teeth are so placed that no two are at precisely the same angle of direction, the effect being to turn the soil rapidly in different directions and give it more thorough cultivation than could be done by old methods. This also leaves the soil perfectly level by the use of a weed-cutter, which cuts all weeds below the surface, and at same time drags over the soil, smoothing it down while perfectly stirred beneath.

Mr. Kilpatrick has added to the upper portion of the machine a system of tree protectors, which renders it almost impossible for careless plowmen to injure young trees and vines. The V-shape has been utilized to make it possible to easily and quickly change the size of the harrow from large to small spread angle, as may be found most convenient. Very close

cultivation can be done by the peculiar position of the teeth, and also by two revolving side-cutters, which are removable at pleasure, and are indispensable for side-hill work, as they keep the machine from sliding sidewise. Further information can be had by addressing S. W. Kilpatrick, Gilroy, Cal.

AGRICULTURAL NOTES.

CALIFORNIA.

Colusa.

THE CANNERY.—Colusa Sun, June 22: We have a cannery, and it is a novelty to us, and we are as proud of it as the small boy with his first pair of red-topped boots. Thursday morning a reporter was out there bright and early, but already the steam was sizzling in the boiler, and men, women and children were hurrying to and fro with boxes of fruit in all stages of preparation from the orchardist's wagon at the door to the man who handled the soldering iron at the further end of the cannery. There were about 100 operatives, and under the experienced management of the foreman and forewoman the work seemed to be going along in perfect order, and the look of happiness on the faces of the many who were earning their first ten-cent pieces gave evidence that a little with contentment is great gain. The rules of the cannery are very strict, but owing to the large number employed and the chances for loss through any neglect or carelessness on the part of the operatives, they may not be too much so.

Humboldt.

SITE OFFERED FOR A SUGARIE.—Eureka Times: Some weeks ago Wm. Perrott, who owns a fine tract of land on Table Bluff and at Swanger's station, communicated with J. D. Spreckels, offering to donate sufficient land at that station to the Occidental Sugar Co. for a factory, if the company would establish a factory there. Swanger's station is particularly well located for an enterprise of that nature. It is the first station on the E. R. & E. R. R. in the Eel river valley, and therefore the nearest shipping point to tide-water on this bay. The station is about seven miles from deep water at Field's landing. It is just on the border line between the rich alluvial bottoms of Eel river and the productive bench land of Table Bluff—both long noted for their vegetable products, and there are thousands of acres surrounding the station that we presume farmers would gladly devote to the raising of beets. There is an ample supply of pure spring water at the station, and the surrounding country will afford an abundance of cheap fuel. The station is accessible from all directions, and the land is level and therefore convenient for teaming. Altogether perhaps no better locality could be found for the establishment of a sugar-beet factory. Mr. Spreckels, in acknowledging the proposition, says that the locations for the factories will not be selected until Mr. Claus Spreckels returns from Europe.

DAIRY ITEMS.—Ferndale Enterprise: S. Bragdon of Guthrie is milking 16 cows. He has an abundance of feed, but does not think it will pay him to buy more cows until butter comes up. Roadmaster Flint is milking 80 cows. Genzoli Bros. on the Harkins ranch, Bear river, are milking 100 cows, and putting up a 100 pound keg of butter every day. Dablin Hights, the old Delaney place, is run by Mr. Lefranc, who milks 80 cows is a good dairyman, and is making 1½ pounds of butter a day to the cow. The Mountain View dairy, the only ranch belonging to the Russ estate that is rented, is where Gus Martello holds forth. Gus is milking 80 cows and doing nicely.

Kern.

GRAIN SAMPLES.—Bakersfield Echo, June 20: Saturday, some specimens of fine grain—wheat, oats, and barley—were received from W. A. Berry, a well-known farmer on Poso creek. He tells us that the sheaves sent are fairly representative of the grain growing on 4000 acres of land in that vicinity. He did not look for a bit here and a bit there that had made an extraordinary growth, but endeavored to get fair representative samples. The oats stand from 7 to 7½ feet high, and have well-filled heads measuring 15 to 16 inches in length. The wheat measures five feet in height, with heads 5½ to 7 inches long, and perfectly filled. The barley is of equally good quality.

Mendocino.

TALL OATS.—Woodland Democrat, June 20: Wash Lambert sends us by to-day's mail a sample of oats grown in Mendocino county, eight feet six inches in length. He says these oats are still growing, and if we want a sample nine feet long, he can furnish one by July 4th.

San Benito.

GOOD GRAIN.—June 11th W. P. Steinbeck, Supt. of the Victor Mills, took a trip to King City by way of San Benito and Bitterwater. Learning this, a Free Lance reporter interviewed him as to the grain prospect for the county. Mr. Steinbeck said: "Everywhere I went the crops were fine. Al. Leonard, at San Benito, told me his crop was the finest in ten years, and many others could probably have said the same thing. The best crops I saw were in Bitterwater. There the wheat looked to be in simply perfect condition, and a large yield of grain is assured. Looking at the grain crop from the standpoint of a miller, it can be said that the crop is very satisfactory."

San Diego.

TIMBER CULTURE.—El Cajon Star, June 22: A few days ago, in company with Mr. A. L. Knox, we were driven to that gentleman's tree claim at the east end of this valley. To our surprise we saw a growth of trees of the Blue Gum, Catalpa, and other varieties, which indeed speak well for the productiveness of our soil. Mr. Knox has over 20,000 trees on the claim, all looking healthy and making a vigorous growth—indeed a young forest has been started. He has been working hard, for years, to make this claim come within the law relative to improvement, and we are inclined to think that he has exceeded all requirements and has now a tree claim which he should feel proud of.

San Joaquin.

LODI MELONS.—Sentinel, June 22: It is reported that the watermelon crop of this season will be fully up to the standard of this locality. The late rains have caused considerable more labor in the patches than was anticipated, but the growth of the vine is excellent, and the young melons are doing well. If the present warm weather continues, with a few warm nights thrown in, early melons will be the result.

THE ISLAND FIRES.—Stockton, June 24: Saturday's fire on Roberts' island swept 300 acres of stubble and consumed 12 stacks of grain, aggregating 8000 sacks. It belonged to Martin J. Lund. Loss, \$5000. At 11 o'clock this morning another fire started near here, and at noon it had swept over between 300 and 400 acres of grain, and was threatening several stacks, houses and barns, and would burn as much more before meeting a road. A series of fires for two weeks has destroyed the grain of more than 3000 acres all told. To-night the fire is under control. Yesterday and to-day it destroyed 520 acres of grain.

Shasta.

FOR LIGHT AND MOISTURE.—Redding Democrat: Jack Conant proposes to take a large body of water out of the Sacramento river near Copley and convey it through a ditch, five feet across at the bottom, to the old Reid place he recently purchased. He intends to irrigate this place, and also utilize the water for power for driving machinery. In connection with this scheme we hear the electric light proposition talked of again. Surveyor Zoellin, with assistants, has been for several days at work surveying the ditch, which we are told will run high enough on the hillside north of Reid's old residence to develop 150-horse power. This would certainly run a large dynamo. We hope to see the scheme fully materialized. It is both practicable and feasible. With water, the old Reid place could be made a garden-spot second to none in the State, and an electric-light plant over there, that would furnish Redding with an abundance of illumination, would be a grand achievement.

Sonoma.

THE FRUIT OUTLOOK.—Santa Rosa Republican, June 20: The summing up of the fruit-crop prospect of the county places the apple and prune far above the average. A shortness of all other fruits is certain. The apricot is almost a total failure, and while there will be a few peaches, there are not more than will supply the local demand. A good crop of blackberries will be gathered. It is doubtful if any of the canneries of the county will make an extended run this season. The prices offered for what fruit there is seems to be considered by the orchardists as not commensurate with the local scarcity. Grapes as usual will be in abundance, and low prices will undoubtedly rule for both table and wine varieties.

GRASSES FOR HAY.—Mr. Loring some six years ago sowed a small piece of his property in town with timothy seed. This grew and has produced two crops of hay each season since, and without irrigation. The growth has been rank, and he has now just harvested the second crop for this season. The growing of these grasses for hay has the merit not only of being the best for feed, the easiest and cheapest raised, not having to be re-sown each year, as grain, but it commands a good market price. This subject should receive the careful investigation of the practical farmer in this part of the country.

Stanislaus.

FIELD FIRE.—Modesto News, June 20: Yesterday afternoon a fire started on the land of James S. Witherell, about three miles southwest of Ceres. Owing to a strong wind from the north, the fire made rapid headway across a narrow strip for three miles, crossing the lands of W. L. Canfield and Levi Carter, and was finally checked at the county road leading from Key's switch to Grayson, by means of the road and plowing down by I. W. Uptake along the side of the roadway. At this point back fires were lighted and guarded with wet sacks by about 60 men who worked like beavers. Mr. Witherell's loss was about 30 acres of growing winter-sown grain, valued at \$120, and insured for about one-half the amount. Mr. Canfield had about 100 acres of winter-sown grain destroyed, valued at \$500, and insured for \$250. Mr. Carter's land was all stubble, which burned over rapidly, and caught two very large stacks of wheat of late-sown grain. This grain was especially fine, and the stacks were valued at fully \$1000, with an insurance of \$6.75 per acre, held by the Grange Co. Mr. Carter places his loss at 160 acres that would have yielded 30 bushels per acre. The fire caught at the side of the roadway leading from Ceres

along the section line, passing the land farmed by Mr. Witherell, and is supposed to have been caused by the careless throwing away of a lighted cigar stub.

WHEAT YIELD.—Modesto Herald, June 20: A few grain crops which have been put in the sack have yielded as much or more than had been figured on by the owners. The yield from 110 acres, only 40 of which were summer-fallow, on the farm of Mrs. M. A. Lucas, two miles south of Oakdale, was 1030 sacks. The surrounding crops in that vicinity will perhaps not average so well. Charles Eardly, who is one of Stanislaus' successful grain-growers, informed the writer the other day that the late crop in the neighborhood of Waterford was greatly damaged by the hot wave which prevailed a few weeks since, but that on the whole the crop was a good one.

Sutter.

SUGAR BEETS FOR COWS.—Appeal, June 21: Fred Haus of Sutter county has made arrangements to plant an acre of bottom land in sugar beets this season. He has sold the crop in advance to a dairyman, who will use the beets to feed his cows, for which purpose they are especially well adapted. Mr. Haus will keep an exact account of the expenses and the yield for publication, so that farmers may judge for themselves of the advantages of the crop for this part of the State.

THE HORTICULTURISTS.—Sutter Farmer, June 21: Wednesday's meeting of the Horticultural Society was one of the most interesting ever held by our fruit-growers. The subject for discussion was "Picking, Drying and Packing Fruit," and this proved of such profound interest as to call for a further discussion at the July meeting. These questions were most ably handled by Messrs. Kells, Davis, Aaron, Stabler, Bogue, Campbell and others, all of whom shed much light, to us at least, on very important branches of fruit-growing, showing that it was quite as necessary to know how to market fruit as to know how to raise it. To get the full benefit of these meetings, it is necessary to attend them. They cannot be reported for the press as they deserve. Work in the field is, of course, now very pressing, and yet we feel sure a half-day devoted to these discussions and reports in a month is quite as necessary and beneficial as any work in orchard and vineyard.

Tulare.

BADGERS AS SQUIRREL TRAPS.—Visalia Delta, June 20: This morning, J. T. Cannon killed a badger in the front yard at Mrs. Fulgham's. The animal was a large one, weighing 20 pounds. Badgers are valuable where squirrels abound and destroy quantities of the pests, and it is not advisable to exterminate them.

COMBINED HARVESTERS.—Traver Advocate: The first combined harvester ever used here was brought in by T. L. Reed four years ago, and the number has constantly increased, until this year there are 21 of the costly but money and labor-saving machines in active operation, gathering in the golden grain of the 76 country. There is no better evidence of the grain yield of this section than the fact that this large number of combines is at work in our harvest-fields, besides the numerous headers now in operation which will have to be followed up later by thrashers.

CATTLE AND BAD WATER.—Cattle on the ranch of D. Barrie, in Excelsior district, have been dying off very rapidly during the past week, over 75 head having already died. The band attacked was small and was formerly in a field in which the water was bad, and we think that the mortality is due to the stagnant water which the animals have drank and not to any infectious disease. A few years ago Mr. Sanborn of Mussel Slough lost about 40 head in the same way. The animals die suddenly, and apparently without any previous illness. Mr. Sanborn used the following remedy, with the result that he saved all the cattle to which it was given: Add copperas and salt in the proportion of four ounces of copperas to a pound of salt, to water in a trough; put in enough of the mixture so that each animal will take at least a tablespoonful of copperas a day. The cattle, when the remedy is being given, should be kept in a corral, fed dry feed and allowed no water save that which has been medicated. The same remedy is said to be good for cattle having diarrhea. D. C. Hayward has used the remedy on his cattle when they were suffering from the effects of alkali water, and found it sure. It is a strange fact that cattle will drink warm alkali water in preference to clear, pure water, consequently the animals, to be properly treated, must be kept away from impure water until a cure can be effected.

FRUIT-DRYING ON A LARGE SCALE.—Tulare, June 20: The drying of fruit at the 1000-acre orchard of Paige & Morton is now thoroughly started. At present they are working on apricots, of which there is an immense yield, averaging 200 pounds to the tree, and of good size. Fifty tons have been put out thus far, but this is only a start. Besides a large number of men, there are about 100 women, boys and girls employed. Peaches will be next operated upon, and 200 hands will be employed; one mile of railroad has been laid through the drying-grounds.

HANFORD CHEESE FACTORY RUNNING.—Sentinel, June 20: The Hanford Cheese Mfg. Co. started business last Monday. The first batch of milk turned to cheese like a charm, everything working very satisfactorily, which put all hands in

good spirits. The superintendent, J. G. Cohoe, reports good milk in very fair condition, and that the machinery works completely. We give below a list of the patrons up to yesterday morning, with the number of pounds furnished by each. [The list comprises 21 names and foots up 2597 pounds of milk.—EDS. PRESS.] Considering that all farmers are in the midst of harvest and that the time is as unfavorable as it well can be, the above is very gratifying. The Lakeside patrons, who live from eight to ten miles away, have proved on the start that it is possible to move the milk that distance safely in hot weather. Other additions will be made to the patronage next week, and it is hoped that after harvest the milk delivery will reach 5000 pounds daily.

PECANS.—Geo. Fisher, superintendent of the Lone Oak ranch, owned by E. Hutchinson, has had good success in making his pecan plants grow this season. J. E. Tilton has a limited number of pecan plants which he grew from the seed this season. He intends to put out a nut orchard soon.

RASPBERRIES.—It has often been said that raspberries do not bear well in this valley, but one day this week Mrs. B. C. Anderson brought to the Delta office a box each of Blackcap raspberries and the common red variety. They were large and of excellent flavor, and we have seen no better ones grown in other parts of the State.

ALFALFA PASTURES.—Visalia Times, June 20: W. H. Parr has 73 acres of his ranch, adjacent to this city, seeded to alfalfa, and says it pays him 12 per cent on a valuation of \$100 per acre; in other words, his 73 acres give him a return of \$876 per annum. This is derived from pasturing stock at so much per head per month; hence there is no necessity for hired help, and the proceeds are sufficient to support a family comfortably.

Yolo.

NEW WHEAT.—Woodland Mail, June 22: The first new wheat of the season was received Monday for storage at the warehouse of C. T. Bidwell. It was delivered by Al. Bourn, and was harvested with his new harvester. The wheat was of the "Snowflake" variety, and a very fine lot.

TEXAN BLACKBERRIES.—A two-horse wagon-load of blackberries is brought to Woodland daily and offered for sale. The berries are raised on C. Nelson's land, near Cache creek. They are the wild berry of Texas, cultivated by J. S. Houser, who bought the Card orchard on Tom Laugenour's ranch. They are said to be the finest berry in the world for canning purposes.

SHIPPING MELONS.—Winters Express, June 22: H. and W. Brinck from their Yolo county ranch have shipped a crate of watermelons and canteloupes to S. F. each day this week, beginning with Wednesday. This is two weeks earlier than such fruit has been shipped from here. The melons were perfectly ripe and brought fancy prices.

Yuba.

MARYSVILLE LEMONS.—John L. Steward brought to the Appeal office the other day, as a sample of the product of a tree in his garden, a lemon measuring 10½ by 11½ inches in its two circumferences. The tree is budded of the Sicily variety, and was planted in 1868. In some seasons it has borne as many as 2000 lemons, all large and fine, the crop being very valuable.

OREGON.

CROP PROSPECTS.—Oregonian: The following is compiled from reports received from different counties by the Oregon State Weather Bureau for the week ending June 15th: The temperature has been above the normal during the week from 8 to 12 degrees. There was no rainfall. The winds up to Friday noon were northerly, warm and very dry, in sections being almost a "norther." On Friday and Saturday the winds were southerly. The effect of these conditions on the wheat crop has been injurious, especially in Eastern Oregon. In the Willamette valley the fall wheat continues its promising outlook, while in localities the spring wheat is slightly injured. Along the coast nothing has prevented the flattering prospects of one month ago being realized. In the Umpqua valley more than an average wheat crop will be harvested. In the Rogue river valley the weather has, to a certain extent, injured the wheat; in many sections, however, an average crop will be realized, while in other sections the crop is badly "fired," and much grain that looked well two weeks ago will have to be cut for hay. In the Lake region much of the wheat is only from 6 to 12 inches high, and is turning yellow, and will hardly make hay.

While the prospect for the wheat harvest is not so good, the other crops show signs of large yields. Barley and oats are promising good crops. The fruit crop will be the largest ever gathered in the State. The strawberry crop is about over in Western Oregon, while in the Eastern part of the State it is now being gathered. Cherries are yielding enormously. Raspberries are plentiful, and large crops of blackberries are indicated. Prunes, plums, peaches, pears, apples, etc., present a most promising appearance, and indicate large yields. Cooler weather has prevailed for the past three days, and yet the wheat crop may make a more favorable showing. Wheat harvest will begin in many parts of the State by the 25th inst.

FLORIST AND GARDENER.

Tell What You Know.

Never before in the history of the Pacific Coast has there been such a clamor for practical knowledge of horticultural matters. A great drawback to the glorious results which would naturally follow this awakening is the clamlike tendency of a certain class of men to keep to themselves any information they have gathered, while they greedily devour whatever knowledge may be set before them by their more liberal co-workers. The fabled dog in the manger well represents this class of men. The dog in the manger, however, was not only slighted, but he went without his dinner. Since knowledge is not a positive quantity, and there is no such thing as exhausting the supply, there is certainly no wisdom in everlastingly keeping a tight rein upon its pursuit.

Only men of the most limited mental ability need fear to give out information for fear of exhausting themselves, since friction of minds, like that of flints, is a creator of light. As to the circulation of information being a detriment to personal business, it is certainly true that those who are driven to the acquirement of knowledge by experience are much more dangerous rivals than others.

Those who impart information most readily are, as a rule, wide-awake, successful men, who are real elements in the prosperity of the country. They read and are willing to be read, and their whole lives are broader and richer. The man with a secret method, especially in horticulture, is generally a bother to himself and those about him. The keeping of his secret so monopolizes his energies that he has little time left for his legitimate business. Not only this; he is generally the subject of remark by his associates, who recognize that he would be much better off if he would be more communicative.

Flowers for the Johnstown Sufferers.

As usual, California has used its flowers to good advantage, and is ahead of all the rest. On June 12th the ladies of Eureka opened a floral festival for the benefit of the Johnstown sufferers. The ladies of Arcata, Ferndale, Bay-side and Hydesville also contributed liberally of their garden treasures, and deserve their pro rata of praise.

There were a great many beautiful designs, and music lent its charms to the occasion. The following were the prize-winners:

For the best floral piece, Miss A. Ohman, the "Tower of Babel," \$15.

The best display of geraniums, Mrs. Wm. Brown, \$10.

The best display of roses, Mrs. R. Sweasey, \$12 50.

The best bouquet, Mrs. Wm. Brown, \$5.

THE AGAPANTHUS.—There are so few blue flowers of a really robust nature that the *Agapanthus Umbellatum* (African lily) is particularly worthy of notice. It is one of the most gracefully foliaged of our lily-like plants, having long, shiny, persistent leaves produced in great profusion. The bulbous roots multiply by offsets rapidly, forming in a few years a large oval clump. Large clusters of graceful lily-like flowers of an exquisite lavender-blue color are profusely borne on smooth, erect stocks about 2 to 2½ feet high. The plants are adapted to rockeries or shady places, but will thrive in almost any location. When once established they require no further culture. The plants are hardy, and have a protracted blooming season as far north as San Francisco, but whether hardy in still cooler counties the writer does not know. Perhaps some of the Rural's readers can throw light upon the subject.

CUT WORMS.—W. E. Collins states in the *Ontario Record* that he has, at least partially, solved the cut-worm problem. He cuts up cabbage leaves into thin strips, and soaks them in a solution made in the proportion of one pound of Paris green to 50 gallons of water. The poisoned strips he sticks into the ground in an upright position, and close to the base of the plant or shrub in the evening. The cut worm referred to is the large, gray, mottled, fat grub familiar to us all.

MRS. R. B. DAVIS of Oakland asks readers for a remedy for the big red ants which trouble her garden.

The State Flower Show.

California's claim to the title, "the Floral State," was thoroughly vindicated in the first effort of the State Floral Society to hold a show which would set forth the floral resources of the State. The show was held in Irving hall, San Francisco, the middle of May, and lasted three days. Now that the workers have rested a little, and can view the affair calmly, it is perfectly evident that their enthusiastic confidence in the State Floral Society and in the flower-loving public has received a pronounced stimulation. The society has given a show which could in many particulars compare favorably with any ever seen in the United States.

The obstacles to be surmounted were formidable. The society was but eight months old. Its members had, most of them, never even had an interest in any similar enterprise, much less worked side by side. There was no concerted action of the professional florists, and many professionals and amateurs, whose aid the society had a right to count upon, failed when it came to action. There were many of these who even went so far as to select space, yet gave neither their presence, exhibits, nor excuse. Those who were most delinquent were, of course, the greatest grumblers at the work others did for them. Some of these, of course, received just censure, while others, having only acted in accordance with a constitutional weakness, were excused. That mistakes were made is true, and not at all surprising, but the blame belongs to those whose assistance was withheld. Among those who did what they could there was no disappointment or dissatisfaction whatever.

Valuable lessons have been learned, and the committee having in charge future exhibits will be under great obligations to those who so faithfully and successfully labored to give the series of shows a worthy standing among the great exhibitions of the world, and the labors hereafter will not be so delicate or so arduous.

California had this year nearly three times as many flower fairs as any other State in the Union, and all should be faithfully maintained as regular institutions by those who wish to see the State take undisputed its proper rank at the head of the procession. All should be tributary to the State Flower Show, which can now certainly be made a worthy exponent of the floral advancement of our people. By sufficient painstaking preparation we could surely equal, if not surpass, the world in exhibiting cut roses, rhododendrons, pelargoniums, palms, orchids, ferns, evergreens, hard-wooded plants, peonies, chrysanthemums, and many other classes that might be enumerated.

State Floral Society.

The tenth monthly meeting of the State Floral Society was held in the parlors of the State Horticultural Society, San Francisco, on the 14th of June. Thirty-two members were present.

The following residents of various parts of the State were elected members: Mrs. F. M. English, Mrs. S. A. Eldridge, Mrs. Nathaniel Paige, Mrs. L. A. Booth, Mrs. M. B. Pratt, Mrs. E. C. Campbell, Mrs. Henry B. Williams, William Whitney, Charles Haselbacher and John Becanne.

The Executive Committee which had in charge the spring-flower show of the society made their official report. It demonstrated that, notwithstanding the fact that this was the first effort of the society, and that unusual expenses had been incurred for permanent fixtures, etc., the affair had been a great success. The actual cash deficit of about \$250 was more than offset by the material on hand ready for future exhibitions.

Mr. E. J. Wickson gave an interesting lecture on "Friendly Insects," and exhibited a number of living specimens in various stages of development.

A paper by John Gabler of East Oakland was read by Horace G. Platt. Its title was "Landscape Gardening," and it treated generally of the demands of the coast for more intelligent efforts in this direction.

A vote of thanks was given John Rock of Niles, Chas. V. Parker of Fruitvale, and John H. Sievers and Fred A. Miller of San Francisco for extra efforts in behalf of the recent exhibition.

The full list of exhibitors was as follows: Madame Michell, new striped rose; Mrs. R. Townsend, collection of carnations; John H. Sievers, new rose, "Rainbow;" Mrs. T. L. Walker, roses, the Bride, Sunset and Adam, pelargoniums, Piedmont, Emperor William, Occident, and a seedling variety, lily, Longiflorum, Coral Lily of Siberia; Mrs. C. G. Athearn, new pelargonium; King Brothers, Iris Kampher, Dieletra Spectabilis; H. T. Greenough, new rose, "The Queen;" Mrs. J.

N. Bailey, sassafras and black birch leaves, John H. Sievers showed a specimen of his new rose, "Rainbow," which attracted much attention.

A motion was passed fixing life membership of the society at \$25, and the names of Horace G. Platt and A. L. Bancroft were offered as the first of the class; Mr. Bancroft's proposition being conditional upon the obtaining of a list of ten, which would entirely obliterate the obligations of the society.

The committee stated that the medals and certificates awarded would be engraved and written as speedily as possible.

At the next meeting there will be read papers on "Plant Life," and "Trees and Shrubs Without Irrigation." A discussion will be held as to a fall exhibition.

Facts and Fancies About Flowers.

Blood Plants.

There are certain plants and flowers which bear spots or stains resembling blood, and with them is associated some legend of the Savior or of some saint. In England there is a variety of Arum known as Gethsemane, because it is said to have been growing at the foot of the cross, and to have received on its leaves some drops of blood from the wounds of Christ.

"Those deep, unwrought marks,
The villager will tell you
Are the flowers portion from the atoning blood
On Calvary shed. Beneath the cross it grew."

A similar legend has been attached to the purple-stained flowers of the Wood Sorrel, which by some Italian painters have been placed in the foreground of their pictures representing the crucifixion. Another explanation of this has been derived from the fact that this plant is called in Italian "Alleluia," and may have been for this reason associated with the cross.

Thorpe, in his "Northern Mythology," says that in the flax-fields of Flanders there grows a plant called the Blood Selkin, the red spots of which on its bright, green leaves betoken the blood which fell from the cross, and which neither snow nor rain has ever been able to wash off.

A species of St. John's Wort has red spots on its root, which tradition says appear always on the day of his beheading, hence the name of Blood of St. John has been given to it in some parts of Norway. The leaves are said to have been pierced with minute holes by the devil with a needle. We are told that St. John's Wort, coming into blossom about St. John's Day has been regarded by the superstitious as powerful to avert evil and has been used as a preservative against thunder, evil spirits and witchcraft; various curative properties are also attributed to it.

There are several traditions respecting the origin of the red Rose. One is that it sprang from the brands which had been lighted at Bethlehem for the purpose of burning to death a holy maiden who had been wrongfully accused, and who, in the hour of peril, called upon God for help. The fire was miraculously quenched, and the brands originated the first red Roses.

Another legend is that Cupid, dancing among the gods, upset a cup of nectar upon a white rose and it became red. Yet another says that it sprang from the blood of Adonis; another, that it was from the blood of Venus, who, in her haste to relieve Adonis, pierced her foot with a thorn. Thus Spenser says:

"White as the native rose before the change
Which Venus' blood did on her leaves impress."

The French have a legend on this wise respecting the rose-colored Sainfoin: "When Jesus was lying in the manger at Bethlehem this plant was found among the dried grass and herbs which served for his bed. All at once the plant began to unfold its pretty flowers and form a wreath around the head of the Savior.

The Adonis, says the legend, owes its origin to the blood of Adonis which Venus changed into this flower.

The prophet Mohammed having one day washed his shirt, in order to dry it threw it upon a plant of the mallow. When the shirt was taken away the mallow was found to have been transformed by contact with such a sacred garment into a magnificent Geranium. This was first told by Sir G. Temple in his "Excursions in the Mediterranean."

An interesting anecdote is told of Madame de Stael and a geranium. One day a young Swiss officer of prepossessing figure was introduced to her. Madame became very much interested, and said many charming things for his entertainment. After an hour had elapsed without any response on the part of the officer, she began to put to him some direct questions that he was obliged to answer, but alas! they were very silly answers. Vexed at having wasted her time and wit, she turned to the man who had inflicted upon her such an annoyance and said: "In truth, sir, you resemble my gardener, who thought to do me a pleasure by bringing me this morning a pot of geraniums; but I can assure you that I returned him that flower, begging him not to show it to me any more." "And why?" asked the stranger, quite astonished. "It was, sir, since you wish to know, because the geranium is a beautiful scarlet flower which, while you look at it, pleases the eye, but when you slightly press it, it emits a disagreeable smell!" Madame de Stael then arose and at once swept from the room, leaving

the cheeks of the foolish officer as red as a coat and the flowers to which he had been compared. The fact that the language of the geranium is *stupidity*, gave greater significance to the keen reproof.

A traveler says: "I was passing through some fields a few miles from Torquay one day during the summer of 1881, plucking flowers and discussing their names and peculiarities with a friend, when a woman who was passing by observed in my hand a bunch of wild geranium (*Robertianum*, or Crane's Bill). She accordingly informed me in her peculiar Devonshire brogue that in this neighborhood: 'Us calls that Arb' rabbit. The oal people gathers 'en an' lays 'en up for winter to make 'Arb tay.' It was some little time before I fairly recognized in the name Arb rabbit the more classical form of Herb Robert, but I was none the less thankful for the information."

Venus' Looking Glass is a story and with in modern gardens. The ancient name was *Speculum Venes*, from whence the botanical name *Specularia*. *Specularia* is a pretty species with purplish-lilac flowers, varying to rose-colored and white. A hardy annual growing readily from seed. The derivation of the name is variously stated. Some suppose that the resemblance of the blossoms set upon their cylindrical ovary, and the round mirror of olden time, made of polished metal fixed at the end of a straight handle," suggested the name. Another says that it was suggested from its spreading open so widely in the daytime. A pretty legend, however, explains it in this wise. It is related that Venus one day let fall to the earth one of her mirrors; a shepherd found the jewel, and as soon as he had cast his eyes upon the glass, which possessed the power of embellishing whoever looked upon it, he forgot his mistress and only thought of admiring himself. Love, fearing the consequences of so foolish an error, broke the glass and changed the fragments into this pretty plant; hence the name—*Venus' Looking Glass*. Its language is flattery.

MRS. M. D. WELLCOME.

Botanical Notes of Travel.

(Written for the Rural Press by B. F. LEADS of Santa Clara.)

On the Mississippi recently, at Prairie du Chien, I found a single plant of the hoary verbena (*V. stricta*) with pure ivory-white flowers, the normal color being blue. The flowers of this species are larger than those of the other native species and their color is clear and noticeable.

The white-flowered specimen was a conspicuous object, seen against a close, unpainted board fence, about 300 or 400 feet south of Dousman's hotel, a well-known house, directly at the railroad station.

At the same station, with *V. stricta*, which is abundant, is to be found *V. bracteosa* as well as the ordinary blue verbena (*V. hastata*) of the Atlantic States.

At Rochester, N. Y., a blotched-leaved chickweed (*Stellaria media*) was seen, every leaf being white spotted. This was a large plant and was among and overlying other herbs and grasses, none of which were correspondingly varied.

Six miles from Rochester, by the lake's side, on the rising ground, between Summerville and Windsor beach, a blotched-leaved *Brunella vulgaris* was observed, with one or two leaves perfectly white, or cream-white, and most of the others more or less marked.

On the 12th day of April, just past, two or three hundred yards up the creek from the main street of Los Gatos, I found growing around an old stump some 100 or more plants of *Melilotus parviflora*, all with yellow and white blotched leaves. They were growing in a close group, and were doubtless the progeny of one plant of the year before, or it may be that they were two removes from the original variegated plant, as the area they covered was as much as four or five feet square. Several of the more completely marked individuals I carried home and they are now growing nicely in my yard. From the seed of one of these now in flower I will, perhaps, be able to determine ten months hence whether the attractive leaf markings are to be permanent.

M. parviflora, it will be understood, is an annual, though, like some other so-called annual herbs, it is not unlikely in this State, especially if the winter is mild, to continue to grow for a part of the following year.

Santa Clara, May 2, 1889.

CHINESE BOTANY.—Messrs. F. B. Forster, E. L. S., and W. B. Homeley, A. L. S., are engaged in the preparation of "An Enumeration of All the Plants Known from China Proper, Formosa, Hainan, Corea, the Lucho Archipelago, and the Island of Hongkong, With Their Distribution and Synonymy." It is being published by the Linnean Society.

H. H. BROWN & Co. state in their fall trade list of bulbs and seeds, just received, that Japanese bulbs come packed in heavy clay. They are, however, upon arrival here sorted and packed in sawdust for delivery in this country. Freight rates on such imports from Japan have recently been doubled.

It is not generally known that the Australian tree ferns, such as attracted so much attention in the exhibit of E. L. Reimer at the recent State Floral Society Show, are bought and sold definitely at so much per foot.

PISCICULTURE.

Salmon-Hatching on the Pacific Coast.

Learning that the veteran pisciculturist, Livingston Stone, was in San Francisco, we recently sought an interview with him and secured the following interesting narrative:

My attention was first called to the U. S. Fishery Commission in the spring of 1866, 23 years ago, and that fall I started the Cold Spring Trout Farm in New Hampshire. I was the first one who engaged in fish breeding in New England, and the second in the country, the other being Seth Green. Then I carried on the Cold Spring Trout Farm for several years in Charlestown. In 1872 was invited by Prof. Baird of the U. S. Fish Commission to come out to California to select places for breeding salmon. It was the first attempt in the U. S. at breeding salmon. Thus I became connected with U. S. Commission in 1872. In the fall of 1872 I made the location on the McCloud river, California, in August. It was selected for a great many reasons which combined to make it a good place, and subsequent events have proved it to be the very best place in California for the purpose. We are very fortunate in that respect. The first year, 1872, we only got about 30,000 eggs, and they were sent to the East to hatch and they secured about 10,000 breeding salmon out of those eggs. These were the first California salmon ever introduced into tributaries of the Atlantic ocean.

That experiment demonstrated the possibility of getting salmon eggs here in California and of getting them across the continent into the Atlantic ocean. The next year we went to taking salmon on a larger scale. In 1873 we got 2,000,000 eggs, and our experience enabled us to adopt better methods in every way. The next year we got 5,000,000 eggs. They all were sent to the Atlantic side to be hatched, and so we went on from year to year until one year we got as many as 14,000,000.

About that time, which was about 1875 or 1876, we began to hatch eggs in the Sacramento river, and we have kept this up ever since. In 1872 we had buildings put up, and every year after that we have made improvements and additions. It is singular that the hatching of the salmon for the Sacramento river increased the salmon very much indeed, but that the salmon we sent to the rivers of the Atlantic Coast were never heard of again. We never knew where they went to. It was very remarkable and very discouraging. When it was found that the salmon we sent to the Atlantic Coast disappeared entirely, the Commission gave up the plan of sending these salmon to the Atlantic, and decided for the future to hatch all the salmon for the benefit of the Sacramento river, and this is being done now. We do not send any salmon East except for some experiment.

When we first went to the McCloud River station there were no white people at all and no settlement, and the Indians were very hostile and did everything that they could to prevent us from settling on the McCloud river. In fact, we were the first white people that ever settled there. They tried to drive us away, but they learned that the white people were too strong for them. We built hatching-house and a mess house for the employees and quite a large dwelling-house, and one or two other small buildings. When the great flood of 1881 came, it carried away all the buildings. In the summer of 1881, we went to work again and rebuilt the station, and then we put up a mess-house and a large and convenient hatching-house, stable and a building that was used for the postoffice. Since that time we have put up an engine-house and another building that is used for a store and postoffice; and besides that, one or two other small buildings, blacksmith-shop, etc. This summer we are going to put up a very good building for a residence with the object of having a place that will be suitable to live in during the winter. The other buildings are down close to the river. Although they are very convenient and comfortable in the summer, they are too damp in the winter, as I know personally, for I lived there last winter. The new dwelling-house will be on higher ground.

We generally employ about 20 men when the salmon come up, that is, while they are running. During the rest of the year, we keep generally two or three, because there is always something to be done. When the work is over we begin to get ready for the next year. The salmon begin to deposit their spawn about the latter part of August. The eggs are taken from the fish. When the eggs come from the fish, they are like shot. They are taken in pans and properly treated, and then taken to the hatching-house and put into troughs, and there they are kept until they are hatched. The period of hatching depends upon the temperature of the water. If the water is very cold, they are sometimes several months hatching, as, for instance, in New England, they are sometimes four or five months because the water gets very cold; it is almost ice-water, but on the McCloud river, even at the coldest, they are not generally over eight or nine weeks. The McCloud river is fed by springs and retains its warmth in the winter, and there is not much variation in the temperature of the water, not over 15 degrees difference, or at most 18 degrees. That was one reason why it was selected. It is quite remarkable.

If the water is warm, the fish develop quite rapidly, and I think they ought to be put into the river a little before they begin to feed. For the first few weeks after hatching they live by absorption of the sac, which is attached to their bodies when hatched, upon which they live for several weeks. This is called the yolk sac. They are from 1 1/2 to 1 3/4 inches in length when they are ready to go out. In placing them in the river, we generally try to scatter them as much as possible. If we put them all in together, their enemies would all gather around that spot, and they would fall an easy prey, and the young salmon would not have food enough. We carry them up and down the river and adopt several means to scatter them. The big fish would get the whole of them if we did not.

I have always been in favor of putting the fish into the river before the yolk sac is gone, because then they do not have to come out to feed. When they come out their enemies discover them and the trout and everything is after them, and they are more likely to get destroyed. But if you put them into the water before they have begun to feed, they dive right down and hide, and they can stay there as long as they please. They get used to their surroundings, and the places, and everything, and are more likely to get along better afterward.

The expense has always been borne by the United States Government, but of late years the California Fish Commission has contributed toward the hatching of the salmon, and putting them into the river. The State has a hatching station up at Sissons. We send quite a large quantity of eggs up there after they are taken. We sent over 3,000,000 to the State station and they hatched them. The California station spent nearly \$9000. That was for putting the station in repair, catching salmon, taking the eggs, and that includes taking the eggs from two runs of salmon.

We never took any eggs from the fall run of salmon until this year. The eggs have always been taken from the summer run before this, that is, the run that comes up in September. We continue taking nearly through the month of September. This last year we took eggs from the fall run of salmon which come up in November and got a great many eggs. They did just as well and of course we got more eggs on account of it, but it was double the expense. Instead of closing up the station as we usually do in October, we kept it running until March. We shall take both runs hereafter. Sometimes the water will be too high in the fall, but whenever we can get the eggs they will be taken in the fall.

The supply of salmon can be kept up if they will only give us laws to protect enough salmon to come up. It is very important to pass State laws. The last Legislature did about right on that subject. I think they passed almost all the laws necessary except that they did not make the close season quite long enough, but I am not quite sure about that. They enforce the laws pretty well in California, and the fishermen will understand after awhile that it is for their interest. We do not care much how they catch them if they will only let enough salmon come up so that we can get the eggs. There are various ways of catching salmon. They are caught with gill nets mostly on this coast, but also with weirs, traps, pounds, wheels and sweepnetes. That is about everything. I do not know which is the most destructive to the small fish, but think the wheels take the most small fish. If the small fish went up they would all die. So there is really no great objection to catching the small fish. The wheels are usually put a good distance up the river and perhaps all the fish that get up as far as these wheels are would never come back any way. I do not see much difference between one way of taking fish and another. One is about as bad as another.

The supply of salmon can be increased very much indeed. Nearly 5,000,000 fish were turned loose from the McCloud station last year into the Sacramento river. The fish came from our station originally.

The station in Oregon is on the Clackamas river, about six miles above the mouth. I selected the station there in 1877. The necessary buildings were put up in that year. The buildings are very much better than they are on the McCloud river. They have nice grounds around them. I was at the McCloud station four months last year and then went to the Clackamas for about a month and to Alaska for three months.

The salmon are diminishing every year in almost all the rivers where there are any canneries. I think if it were not for the artificial hatching, salmon would become extinct and the canneries would have to be closed. There are so many boats out when you look down the Columbia river it is like looking at the flakes of snow in a snowstorm. It is a wonder that any fish get up there at all. If they get past the gillnets they have to run the gantlet of the pounds, etc. So if something is not done by the artificial hatching they would almost become extinct. The increase or decrease of the salmon depends entirely upon the amount that are hatched and the number of people that catch them. The sole cause of their decrease is because they are all caught. If you could limit the catching of the fish, nature would take care of it.

Oregon has one station. The State assists that the same as California does. The Government furnishes all the eggs and hatches quite a number the first part of the season, and then

the State comes in the winter and hatches the eggs and distributes them. The Government appropriation for the Oregon station is \$10,000 for building it and \$5,000 for operating it. The \$10,000 is a special appropriation for building and getting the place in order. They only acquired the place this last year. The annual appropriation will be \$5000. About 4,000,000 were hatched there. We took 5,000,000 eggs. If we get 4,700,000 fish we shall consider it a good average. One cannery in a single day on the Columbia river cuts up and cans fish that would create 20,000,000 eggs. If we could only have one day's salmon, we could hatch so many that it would be impossible for them to catch them all afterward.

There are eight canneries on the Sacramento river, 30 on the Columbia, 3 on the Siu-law river, 1 on Smith river, Cal., 1 on El river, Cal., 1 on Rogue river, Oregon, 2 on the Umpqua river, Oregon.

The Legislature of Oregon passed just the laws we wanted right through. In the Senate the vote was unanimous and in the House only five or six dissenting votes, but Governor Penneyer vetoed the whole thing. The Fish Commissioners were Republicans and the Governor was Democratic. He said that he did it to pay back the Fish Commissioners for what they did for him. Political reasons were at the bottom of it. It is going to set back the salmon culture in Oregon two years. The next Legislature will surely correct it. It was a great disappointment. They passed laws that would enable us to take 20,000,000 eggs at that hatchery, and now it will be with great difficulty that we can get 15,000,000. We have to keep two watchmen there all the time.

The Columbia river salmon are larger and grow more rapidly than those in the Sacramento, and they are better fish for some reason. There is no known cause except that it is a larger river. The larger the river, the bigger the salmon. On the Columbia river, I have known salmon to weigh 93 pounds; the largest salmon on the Sacramento weigh about 50 pounds. One station is not sufficient for Oregon. There should be two other stations just as large as the Clackamas. We have never found any other station like the Clackamas, and the only two places that we know of on the Pacific Coast are the Clackamas and McCloud rivers. Now that railroads are building and running across the headwaters, they may come across others. The sooner they go about building stations the better. There should be about three stations just as large as the Clackamas. One station is enough for the Sacramento river, and even if they wanted more we would not know where to find them.

I expect to leave for Alaska immediately in company with Dr. Bean, the scientist of the expedition, the ichthyologist. He studies up the scientific part of the work and I attend to the fish culture part. We will visit the Kodiak Islands first. When we get there we shall go up a little river called the Karluc. The island is about 100 miles long and about 50 miles wide. We shall make quite a study of the river. It is navigable. There are a good many canneries there, and there are more conveniences for study than anywhere else. Then we shall charter a vessel and go up into Cook's Inlet; will take a tent and camp. We will be gone three or four months, and we expect four to make the party. There will be one man to draw maps and charts, so as to locate all the places we describe. We will examine all the available streams, with a view to establishing Government stations, and will examine everything we can get at. This order to examine these streams was the result of a resolution passed by the last session of Congress to make an investigation of the fisheries of Alaska, with a view of improving them if necessary. A station may not be established at either of these places. We shall not start one until we get a good place. It may be a year and perhaps longer. This year we shall barely have time to get around and look. There are streams up there fed like the McCloud river by springs, so that they will be warm enough.

The further north you go, the larger the fish. On the Yukon river, they catch salmon that weigh 100 pounds. They are immense. This river empties into the Behring sea. It will be more difficult to conduct a station up there because it is so inaccessible. So many unexpected things come up when running a salmon station that a place with which communication can be had only once or twice a month will not answer. The Government is going to give a good deal more attention to Alaska. They have not begun to decrease the Alaska fish and the Government wants to get up there before the people do, to be beforehand instead of behindhand, and can then do its work unrestricted. Laws will not be necessary in Alaska at present. There is plenty of fish and plenty of room. The only people there are the cannery men, and they want the supply kept up. The development of the industry is practically unlimited. There are 20 canneries in Alaska at the present time. I think there is a Fish Commission in Washington Territory, but they have not done much. There are nine canneries in Washington Territory.

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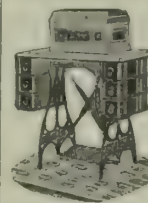
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CHRISTOPHER GREEN, President.

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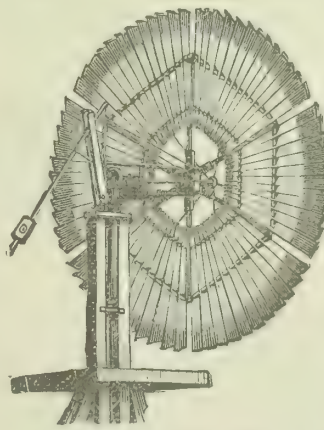
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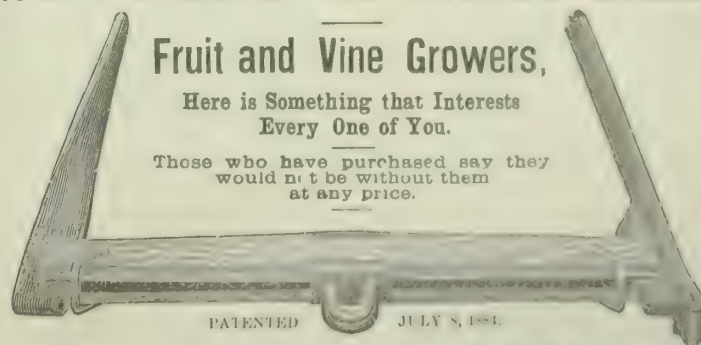
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IS A SURE PREVENTION AGAINST DAMAGING TREES OR VINES, and will save its cost every day it is in use. Used with any trace without change, or by adding a little supplementary trace we furnish. Price of Singletree only 75 cts.; Sup. Leathers, 50 cts. per pair; with full set Traces, \$5.

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FRUIT PRESERVATION.

Dried-Fruit Industry.

NUMBER I.

(Written for the Rural Press by J. R. F.)

Probably no farm industry appeals more directly to the producer than that of fruit, particularly that of stone fruits and, outside of specialists, no industry receives so little attention from the large majority of farmers. A few trees bearing choice fruit on the farm, well cared for, give an abundance of green fruit in their season, besides admitting of the drying and also of the preserving of all that are required for late fall, winter and spring use. The drying of the fruit, like that of canning or preserving, requires care in preparing the fruit and careful attention while being dried. In their selection the overripe, fully ripe and barely ripe should be kept separate, dried separately and packed separately for future use. Over-ripe fruits when dried have a darker color, and, as a rule, are reported to be poor keepers. Fruits barely ripe when dried are said by experienced dealers to be the best, as they have a better color, being lively and bright, besides not so apt to become either wormy or moldy. Over-ripe are more subject to the former, while fruits too green are said to be more apt to become moldy in certain climates. These remarks necessarily apply to sun-dried fruits, for evaporated fruits have not been tested a sufficient number of years in all their various phases to allow of the giving of an unqualified opinion, although it is only reasonable to conclude that which will give the best results in sun-dried fruits will also give the best results with evaporated fruits.

As this article is more applicable to farmers who grow fruits as an auxiliary rather than as a specialty, I will confine myself more to sun-dried fruit. In doing this there are suggestions that can be safely if not profitably followed by those who make a business of evaporating fruits for market.

One of the most essential requisites is to see that the fruit trees are kept properly pruned and in healthy condition; for without this, like all else in nature, the product will be more or less diseased, or, if not diseased, not so healthy and fit for use as the fruits plucked from well-preserved and thoroughly healthy trees. The fruit should, as before stated, be well selected, making from three to four grades, if necessary, according to their ripeness. Besides this the fruit should be of a uniform size as possible, for in packing this has as much to do with their keeping quality and generally favorable appearance as does their condition when picked for drying. Why this so appeals at once to every one's reason, and does not admit of remarks. In peeling and slicing, the fruit should be handled carefully, for bruises tell on their keeping quality, besides showing itself in the color when dried.

The writer's experience in drying fruits demonstrated that the safest and far the best plan was to have raised platforms, say about three or four feet high, made of rough boards from half an inch to one inch in thickness, laid parallel to a width of four or five feet. Over this platform, place or stretch white sheeting (after the season the cloth can be washed and otherwise used). The coarser material will answer, on which to spread the fruit when ready for drying. The white cloth is used for two purposes: first, to insure clean fruits, and second, to assist in drying. It is a well-established fact that white reflects or reflects the rays of the sun, while black absorbs them; therefore, white cloth aids very materially in drying the fruits more evenly and also more quickly. No set rules can be laid down for how often the fruits have to be turned, or how long a time is required for thorough curing, for on these two points much depends upon the state of the weather—the humidity and dryness of the air. Fruits properly dried in the sun, when attractively packed, command in all distributive centers good prices, owing to their retaining a flavor that appeals to the appetite. I have seen in the mining districts well cured and selected dried fruits taken for cooking purposes in preference to the green or fresh fruit sent to market. As for that, I have seen at mountain hotels, in days long gone by, cooks make from soda crackers and tartaric acid a better flavored apple pie than was made from the fresh fruit itself. For all I now know, this way of making fresh apple pies may yet be in vogue where the latter cost too much money.

There is much complaint against California sun-dried fruits' keeping quality. Many who have shipped it to distant foreign ports in the Pacific ocean claim that they become unduly wormy. While not prepared to gainsay the charge, yet they should admit that poor dried fruits do not become wormy any more than poor cheese becomes full of skippers. It is the better grades that are subject to worms. Whether an entire prevention can be had against the fruits being infected with worms in certain climates remains a question, yet it seems possible, and probably no better plan can be adopted than was done in the early days by Chileans, who dried and packed peaches for this market. The first shipments of dried peaches sent from Chili to this city were packed in bulk without any protection outside of the wooden boxes, but they did not keep well, for they either became moldy or wormy. This led them to pack

the fruit in small cakes in coarse cloth wrappers. It is the writer's impression that the cloth was oiled or so prepared as to exclude, to a very great extent, the air, by which the fruit would not be subject to the changes in climate or become wormy. These fruits fetched high prices throughout the State, owing to their superior flavor and admirable keeping qualities. They were only driven out of this market by cheap native fruits, both fresh and dried. While it is impossible, owing to cost, for driers to prepare their fruits for market as did the Chileans, yet the same principle can be adopted in a modified form. Worms no doubt are bred from the eggs or larvae of some kind of fly; then before packing the fruit in boxes, prepared paper or cloth to exclude, as far as possible, the air, should be laid at the bottom and sides of the boxes, and after packing, over the fruit should be carefully laid the same kind of paper or cloth before nailing on the top of the box. It is by excluding the air that the fruit is made impervious to climatic changes and breeding of worms. The writer has had no experience in this direction, neither has he been able to meet with any one that has, therefore the above suggestion is based on the results attained in earlier days by Chileans in preparing dried peaches for this market. At any rate, it is deserving of experiment and may be the means of overcoming a serious objection raised by some against the keeping qualities of our dried fruits.

The curing of fruits by evaporation has become an important industry and is destined to attain a still higher standing as perfection (through competition) is reached. The first successful evaporator, or as then called fruit-drier, was perfected by a man named Plummer, living in Oregon. At first it was laughed at, but actual tests of the fruits dried made him friends among dealers and consumers; but the high prices asked for the dried product restricted the sales. Within a year or two after introducing his evaporators in Oregon, he came to this State and engaged in their manufacture. Others also brought out machines for drying fruits, which contested the field with the original. Many improvements have been made by the various manufacturers until the dried fruits turned out are about as attractive in appearance, when properly selected and cared for in drying, as can be desired by the most fastidious connoisseur. Besides this, the cost of drying has been materially reduced. It is the latter, no doubt, that is bringing the fruits into so great favor and enlarging the distribution centers in this country, and also causing them to get a footing in several of the foreign markets in the Pacific, all of which will be more fully set forth in a succeeding article on this subject.

Besides the lessened cost of drying playing an important part in the consumptive demand and enlarged distribution of dried fruits, that of low freight tariffs of two or three years ago cut no small figure. The overland railroad competition reduced freights to the Central and Eastern distribution centers to such rates as to admit of the cleaning up of our market all carry-overs, good, bad and indifferent, from former seasons. The cleaning up of all kinds of stocks put the industry on better footing for the future. This has been attested in its growth and the remarkable favor with which the product has met wherever properly introduced.

The Truth About California.

EDITORS PRESS:—I read with much satisfaction your report of Mr. Cook's essay on "Unprincipled Packing." I have always admired in the Rural the entire absence of that misrepresentation which seems to exist to an unusual extent in lauding California climate and crops; and I wish you would use your influence positively to put down that pernicious method wherein, after the analogy of Mr. Cook's fruit packer, the general California box is nicely topped with glorious climate, the best lands, exceptional crops, and exceptional prices, while the high winds, fleas, bad years, and fruit rotting for want of a market, make the lower layers to be discovered only after purchase. Our county pamphlets are particularly full of this sort of misrepresentation.

Apart from the morality of it, such work is not good business; and it hurts in immigration as much as in fruit selling.

I wish you would take up the matter and urge common sense and common truthfulness. California's really great merits are so much clouded by the distrust which exists among the Eastern readers of such literature.

San Buenaventura. ALFRED GUILLOU.

All California Fruit-Growers

No doubt wish to send to old friends in the Eastern States or foreign countries attractive pictures and stories of our fruit-growing scenery. In the new work, *California Views in Natural Colors*, one can now send postpaid for but the price of a single ordinary photograph a book containing over 80 views taken expressly to illustrate this subject, with more interesting information about the State than could be written in 100 letters. Ask news dealers, or send 50 cents for one copy or \$5 for a dozen, with list of addresses, to California View Publishing Co., 12 Montgomery street, San Francisco. Agents wanted all over the United States. Send two-cent stamp for elegant circular in colors. Mention this paper.

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Highly Commended.

W. M. King, a journalist of experience, and recently Chief of the Seed Division in the Dep't of Agriculture, writes from Washington: "The Pacific Rural Press is a paper which no California agriculturist can afford to do without, and is acknowledged authority on this side of the mountains as to horticulture and other agricultural and Grange matters on the Pacific Coast."

Ready-Made Houses.

We have been requested to give the address of a firm in this city, or elsewhere in the State, that sells cottages in sections. Our correspondent thinks that such buildings were made some years ago in the redwoods and that there was an agency here for their sale.

We do not know of any concern that is furnishing them, but would be glad of information on the subject. We think it would be well if more attention were paid to the manufacture of portable houses.

Our Agents.

OUR FRIENDS can do much in aid of our paper and the cause of practical knowledge and science, by assisting Agents in their labors of canvassing, by lending their influence and encouraging favors. We intend to send none but worthy men.

J. C. HOAG—San Francisco.
R. G. BARRY—San Francisco.
W. E. BRICK—San Francisco.
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CHAS. DUGAN—Stanislaus Co.
A. F. JEWETT—Tulare Co.
CHAS. F. BLACKBURN—Idaho.
R. G. HUSTON—Montana.

THE AFRICAN NEWS.—We have received a copy of a very interesting publication entitled the *African News*, containing information from and about Africa. Bishop Wm. Taylor, resident in Africa, is editor and proprietor, and the journal is published at Vineland, New Jersey. The subject-matter of the publication is fresh and acceptable to those who rejoice in light breaking upon the dark places of the earth.

The Mysterious Vine Disease.

Expert Ethelbert Dowlen, of the Viticultural Commission, who has for some time past been in Los Angeles county investigating and experimenting with the vine disease, has forwarded to Executive Officer C. A. Wetmore samples of diseased vines, consisting of leaves, wood growth, etc., taken from the vines at different periods while under treatment. The following letter will fully explain his success in the experimental treatment:

SAN GABRIEL, June 12, 1889.

Chas. A. Wetmore, Esq., President Viticultural Commission.—DEAR SIR:—I have this day, at Mr. Shorb's suggestion, forwarded you, by express, some samples of diseased vines, labeled A, B, C, showing the effects produced by the powder recommended in Report No. 29 (published in the Rural Press April 27th).

a. A badly diseased branch with new growth just starting from the bases of the leaf stalks, and from the tip of the branch.

b. Shows considerable new growth from above the label, and also from the bases of the leaf stalks.

c. Shows new growth from the bases of the leaf stalks.

The specimens are taken from Sultana vines. The last application of powder was made about two weeks since, and it is to be noticed that the disease has made no progress since the application, the new growth starting out instead. Some Burger and Mataro vines which were affected have shown similar results.

The vineyard from which these specimens were taken contains about 500 acres. It has been dressed three times this year; first, just before the starting of the vines, second, just after starting, and third, about two weeks ago, when only the vines showing disease, very few in number, were treated. The whole vineyard now looks remarkably healthy. I am, yours faithfully, ETHELBERT DOWLEN.

The powder alluded to is the Ongerth Insecticide Powder No. 2.

Don't Fail to Write.

Should this paper be received by any subscriber who does not want it, or beyond the time he intends to pay for it, let him not fail to write us direct to stop it. A postal card (costing one cent only) will suffice. We will not knowingly send the paper to any one who does not wish it, but if it is continued, through the failure of the subscriber to notify us to discontinue it, or some irresponsible party requested to stop it, we shall positively demand payment for the time it is sent. LOOK CAREFULLY AT THE LABEL ON YOUR PAPER.

NOW TAKE THE GREAT

SIERRA KIDNEY and LIVER CURE.

PURE JUICES OF THE HERBS OF CALIFORNIA.

Sure Cure for Diabetes, Catarrh of the Bladder, and all Disorders of the Liver and Urinary Organs.

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WATER PIPE FOR SALE

CHEAP.

Prices Furnished on Application.

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In order to test the difference in Bale Rope, about which there is much discussion, we to-day used one coil Eastern made rope, 50 lbs, which baled 67 bales hay, weighing 84 tons, taking about 7 lbs rope per ton, and one coil of TUBBS CORDAGE CO.'S make, 57 lbs, which baled 88 bales, weighing 114 tons, taking 5 lbs per ton. These facts prove that it takes about 40 per cent more of Eastern rope to bale a ton of hay than it does of the Tubbs Rope. We used six strands to a bale and not a strand of the Tubbs Rope broke.

J. R. WRIGHT, Owner. MARTIN WOLLESON, Baler. Calistoga, June 6, 1889.

I this day baled my hay with TUBBS CORDAGE CO.'S Bale Rope, five strands to the bale, and it took less than four pounds rope to bale a ton. Not a strand broke. Calistoga, June 6, 1889. J. O. BUTTERFIELD.



Fryer's Remedies are guaranteed to give satisfaction or money returned. They consist of:
Fryer's Abilene Cough Balsam..... 75 Cts.
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W. W. Hancy, 221 Sacramento St., S. F., says: "Abilene cured me of Rheumatism, Dyspepsia and Kidney trouble, after other remedies had failed. I used it both internally and externally."
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For the half year ending June 30, 1889, a dividend has been declared at the rate of five and one-tenth (5 1-10) per cent per annum on Term Deposits, and four and one-quarter (4 1/4) per cent per annum on Ordinary Deposits, payable on and after Monday, July 1, 1889.

GEO. TOURNY, Secretary.

SAN FRANCISCO SAVINGS UNION,

532 California St., Cor. Webb.

Branch, 1700 Market St., Cor. Polk.

For the half year ending with the 30th of June, 1889, a dividend has been declared at the rate of five and one-tenth (5 1-10) per cent per annum on term deposits, and four and one-quarter (4 1/4) per cent per annum on ordinary deposits, free of taxes, payable on and after Monday, July 1, 1889.

LOVELL WHITE, Cashier.

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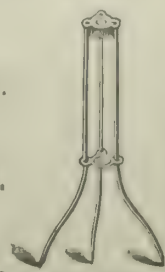
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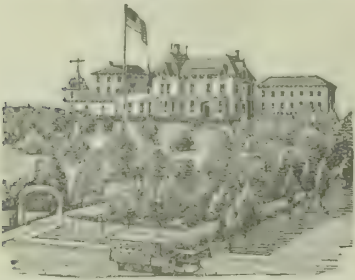
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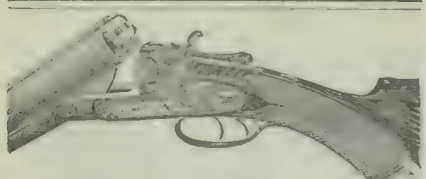
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The Only Reliable and Efficient Powder
For Stump and Bank Blasting. From 5 to 20 pounds blows any Stump, Tree or Root clear out of ground at less cost than grubbing. Railroaders and Farmers use no other.

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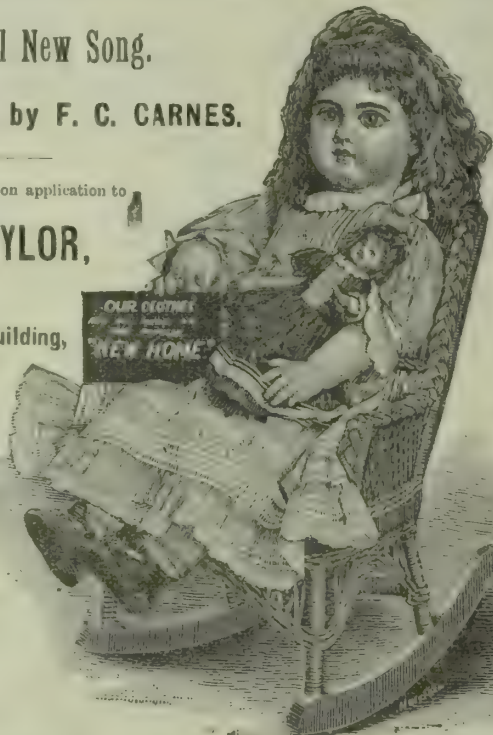
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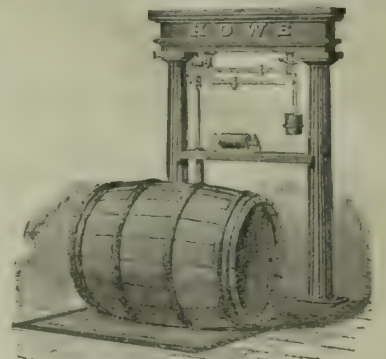
The H. H. H. Liniment is for the treatment of the Aches and Pains of Humanity, as well as for the ailments of the beasts of the fields. Testimonials from importers and breeders of blooded stock prove its wonderful curative properties. No man has ever used it for an ache or pain and been dissatisfied.

H. H. MOORE & SONS, Stockton, Cal., Proprietors.

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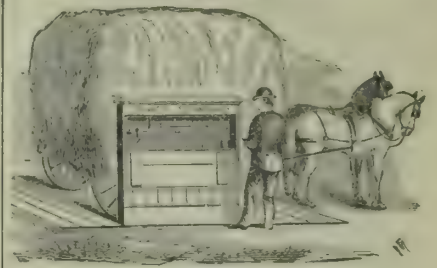
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HAY, GRAIN and CATTLE SCALES,

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ORANGE CULTURE IN CALIFORNIA.

Now that the interest in the culture of the orange is extending so as to embrace nearly all parts of the State, a book giving the results of experience in parts of the State where the growth of the fruit has been longest pursued will be found of wide usefulness.

"Orange Culture in California" was written by Thos. A. Garey of Los Angeles, after many years of practical experience and observation in the growth of the fruit. It is a well-printed hand-book of 196 pages, and treats of nursery practice, planting of orange orchards, cultivation and irrigation, pruning, estimates of cost of plantations, best varieties, etc.

The book is sent post-paid at the reduced price of 75 cents per copy, in cloth binding. Address Dewey & Co., Publishers "Pacific Rural Press," 220 Market St., S. F.

From Vaca Valley Orchards.

EDITORS PRESS:—The weather is hot and dust plenty. The people of Vacaville have made arrangements to have the roads near Vacaville, say within one mile, sprinkled. They have a tank built, which will hold about 1200 gallons, and will start a four-horse team Monday morning, sprinkling. They have two pumps, and will have two wells as soon as they find where they are wanted. The water will be pumped by horse-power, and they calculate to fill the tank in ten minutes.

A water company has been formed in Vacaville to erect water works to cost about \$8000.

A new fruit company has started in Vaca, a branch of the Golden Gate Co. They claim

for cutting. Mr. Dickson has a young railroad about 200 feet long, from his cutting-shed to

The Sulphur-House.

Which is in the drying-yard. He has two cars, 16 feet long by 6 feet wide, which hold 300 trays of fruit. The trays are taken from the cutter and placed on the car. When the car is loaded, four men run it into the sulphur-house; the sulphur is put into a hole in the ground, and chunks of iron (such as old axes), which are kept hot in a stove near by, are thrown on the sulphur. The smoke will fill the house in a few seconds, burning much quicker than if lighted with a match.

Parties here have been smoking their vineyards to drive off the hoppers. They fill old

wet, and sold at nine cents. To another party he says fruit sold, but gives no accounts to show at what price or to whom. The company threaten to bring suit for the money, but will probably do no more than try to scare somebody. They will have a chance, as the parties have consulted a lawyer, and his advice was to tell the agent to go to blazes. Much indignation is felt among the people here at the attempted swindle, which is not regarded as quite so honorable as horse-stealing.

Vacaville, June 23, 1889.

Capital and Labor.

The following, from the Philadelphia Record

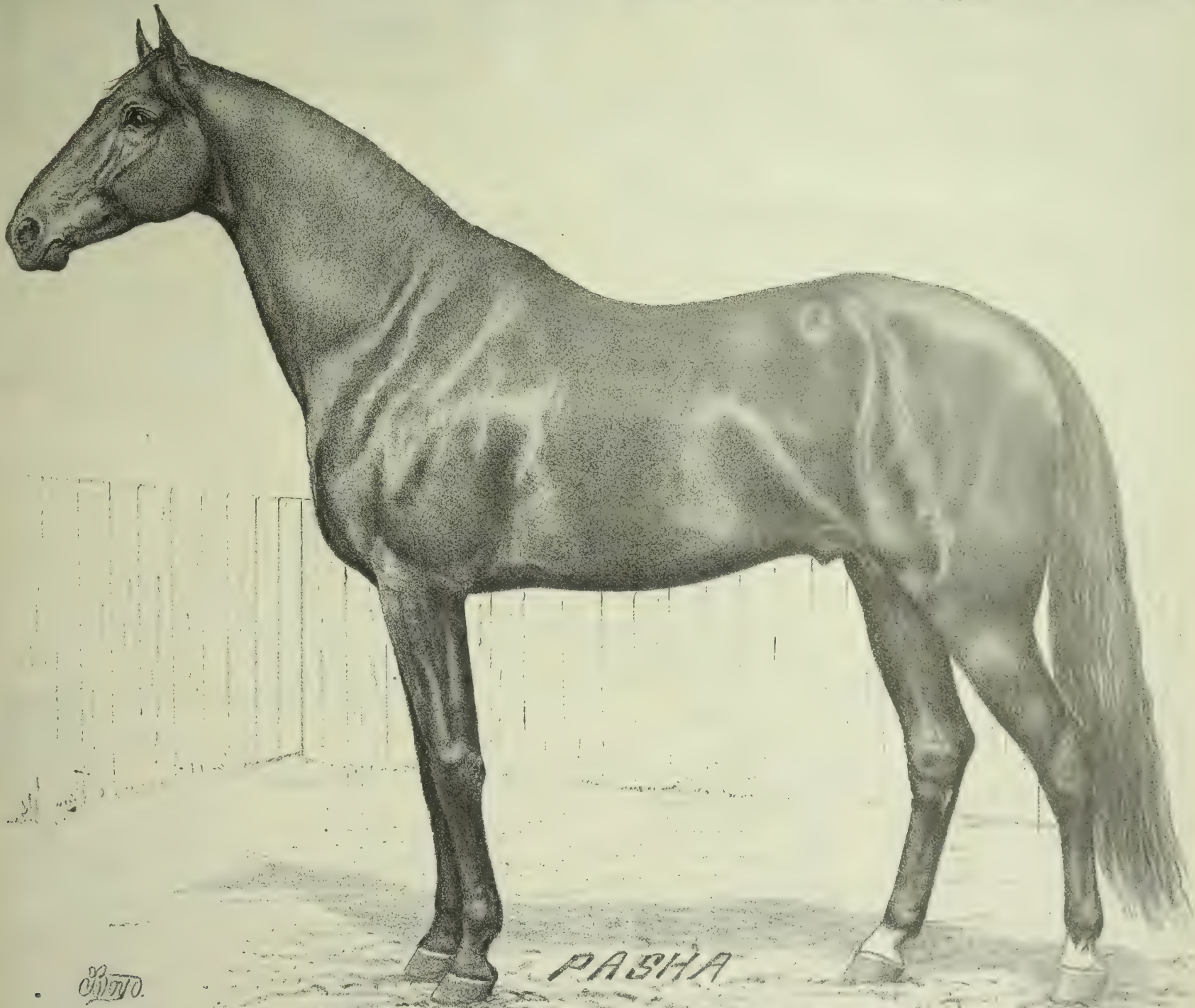
be added \$4,182.39. Total, \$104,345.68. 1. year's distribution, \$100,439.68. Total distribution for the year, \$104,345.68.

"This plan was intended to enlist more fully the heart and soul of our people in the business of the house, to lead to greater zeal in economy of time, faithfulness of effort, diligence, patience and educated clerking, unity of purpose and general interest in the extension of our business.

"I proposed to do two things by this plan:

"First. To give actual proof of manifest interest to our people.

"Second. To solidify the people into one mighty and perfect force to increase this business for the benefit of themselves and their employers.



PASHA—THE PROPERTY OF S. N. STRAUBE, POPLAR GROVE BREEDING FARM, FRESNO, CAL. -See Page 613.

they will ship cheaper and give their consignors more advantages than any other company. Hope they will, as we need all the advantages we can get. The past week there was

Shipped from Vaca

To S. F. from 8 to 10 cars daily of fruit and vegetables. The Vacaville Fruit Association sent East six cars, besides from one to three tons daily by express to different points. The Vacaville Fruit Co. moved their headquarters from Winters to Vacaville last week, and have sent off two cars.

There is to be a grand celebration here on the 4th of July.

Nearly everybody who has apricots is drying or will commence this week. There are a large number of families camped out in the orchards here, and scores of men, looking for work, who will not get it. Men come here from the East, and say that Vacaville is cracked up all over the Eastern States as the boss place to get work, but when they get here they are disappointed and take it out in cursing the country and the newspapers. Fruit will dry away about one-sixth more than last year on account of there being so much water in it.

John Dickson of Lagoon valley calculates on having 90 tons of dried 'cots. He has about 30 cutters at work and is paying 25 cents per 100

sacks with stable manure, mixing sulphur with it, and putting a row on the windward side of the vineyard, fire them. A sack so fixed will burn 12 hours, and certainly

Drives the Hoppers Away;

But whether they will stay away remains to be seen.

A man was here last week for the Lusk Company, trying to buy apricots to can. He offered two cents per pound, but wanted the 'cots to go 12 to the pound, which few will do. He said he had bought one small crop, which is all the fruit I have heard of being sold to canners from this valley.

Misplaced Confidence.

Last summer an agent of a Chicago firm induced parties to send dried fruit to his house to sell on commission, offering to advance 12 cents on 'cots and five cents on peaches. He got several crops on these terms, saying he could sell at 18 cents, and agreeing when the fruit was sold to forward the balance, after taking out his commission and the freight. Now he comes on and says the fruit did not sell for as much as he advanced on it, and he wants several hundred dollars from each party. One party he bought of was offered 13 cents here for his 'cots, and the fruit was pronounced by good judges to be A No. 1. The agent reports that the fruit was

of May 18th, contains a lesson for both employers and employees. There ought to be an end to strikes when the laborer feels that he properly receives a direct benefit from the success of the business he is engaged in:

John Wanamaker, shaking off the cares of the P. O. Department for a short time, last night conducted the distribution to his employees of the dividends which they have earned during the past year under his plan of profit-sharing. The amount was \$104,345.68, and the distribution of this handsome sum was made in the large carpet-room, on the second floor. Nearly all the employees of the big store were present, and Mr. Wanamaker made a little speech to them, in which he said:

"It is a great pleasure for me to be here to-night. Nothing alters my interest in this business, which for a lifetime has had a good deal of the best red blood of my heart.

"I come here especially to stand by my partners in making good the words I spoke to you a year ago, proposing a distribution of part of the profits to such of you as have been in our employ for seven years and upward.

"The sum paid out in monthly payments to salespeople, over and above regular salaries, was \$58,263.29. With what has been already paid and what shall be paid to-night there will

"I regret to admit that I do not see much that has been gained by the experiment we have made, except the satisfaction of making the effort and the pleasure there is in the giving you a share in our returns.

"There is a great deal of foolish talk about the relations of capital and labor. You keep your savings and they become capital. You are entitled to all that such capital produces, so long as you pay current and proper wages to those who work for you. When you have done that, no man has any right to ask or expect you to let him have a part of your profits any more than he has to live for nothing in a part of your house.

"We do not intend to do any walking backward, but we want to go forward with all the intelligence we can command, and already the road we have started on leads toward a closer relationship between employer and employed."

At the conclusion of the speech, the names of those entitled to dividends were called off by Mr. Ogden, and Mr. Wanamaker handed each one in turn an envelope containing a check.

The business being properly conducted, employees well treated, and a reasonable division made, the above must prove a good example to be followed by all employers.

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Lines or less in this Directory at 50c per line per month.

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GEO. BEMENT & SON, Maple Grove Farm, Oakland P. O., breeders of Ayrshire Cattle & Essex Swine.

F. H. BURKE, 401 Montgomery St., S. F.: Registered Thoroughbred winners of three first prizes, sweepstakes and special premiums this year than any herd on the Coast. Pure Berkshire Pigs. Catalogues.

PERCHERON HORSES—Refer to large advertisement. Address, Capt. W. B. Collier, Lakeport, Cal.

WILLIAM NILES, Los Angeles, Cal. Thoroughbred Registered Holstein and Jersey Cattle. Write me.

P. PETERSEN, Sites, Colusa Co., importer & breeder of registered Shorthorn Cattle. Young bulls for sale.

JOHN DETER, Colusa, Cal. Almost saddle and driving horses for sale. Single footers. Two fine Stallions.

W. S. JACOBS, Sacramento, Cal., breeder of Thoroughbred Shorthorns and Berkshire Hogs.

H. P. MOHR, Mt. Eden, Alameda Co., Cal., breeder of Clydesdale Horses and Holstein-Friesian Cattle.

BRADLEY RANCH, San Jose, Cal., breeder of recorded thoroughbred Shorthorn Cattle. A choice lot of young stock for sale.

H. S. SARGENT, Stockton, importer and breeder of registered Jersey Cattle. Correspondence solicited.

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DENMAN & McNEAR, Petaluma, importers and breeders of thoroughbred and graded Clydesdale horses.

ELROBLAR HANOHO, Los Alamos, Santa Barbara Co., Cal., Francis T. Underhill, proprietor, importer and breeder of thoroughbred Hereford Cattle. Information by mail. C. F. Swan, manager.

J. B. ROSE, Lakeville, Sonoma Co., Cal., breeder of Thoroughbred Devons, Roadsters and Draft Horses.

P. H. MURPHY, (Brighton), Perkins P. O., breeder of Recorded Short Horns and Poland China Hogs.

HEILBRON BROS., Cruickshank strain of Short-horns & Herefords, Wildflower Farm, Fresno or Sacto.

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GALT POULTRY YARDS, S. W. Palin prop'r, Galt, Sacto Co., Cal., importer and breeder of thoroughbred P. Rocks, Lt. Brahmas, Langshans, Wyandottes & P. Cocks, etc., single sitting \$3; sitting \$4.

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SEASON OF 1889.

COOK STOCK FARM.

STEINWAY 1808.

Three-year-old; record, 2:25. Sire of Strathway, 3-year-old; record, 2:26. Sired by Strathmore 408, sire of Santa Claus, 2:17, Tucker, 2:19, Skylight Pilot, 2:19, and 25 others with records better than 2:30, and the dams of 5 with records from 2:18 to 2:23.

First dam Abbess (dam of Solo, 2:28) by Albion, sire of Vanity Fair, 2:24, and of the dam of favorite, 2:25; he by Halcorn, a son of Virginian. Second dam by Marshal Ney; he by Imp Emancipation. Third dam by Bertrand, a son of Sir Archy.

Steinway full brother to Solo, 2:28, and Soprano (the dam of C. F. Clay, 5-year-old stallion, record, 2:18); also Eminence, 4-year-old, record, 2:21, and Stockbridge, 2:28.

TERMS, \$100 for the season.

CRESCO 4908.

Full Brother to SPARTAN, 2:24.

Sired by Strathmore 408, sire of Santa Claus, 2:17; Tucker, 2:19; Skylight Pilot, 2:19, and 25 others with records better than 2:30, and of the dams of 5 with records from 2:18 to 2:23.

First dam Alia, record 2:32 (the dam of Spartan, 2:24), by Almont, sire of Fanny Witherspoon, 2:16; Piedmont, 2:17, and of the dams of J. T. Thompson, 2:17, and Catchfly, 2:18. Second dam (the dam of Henderson, 2:27) by Brignoli, a son of Mambrino Chief, the sire of King Wilkes, 2:22, and Lady Turpin, 2:23. Third dam by Cripple, a son of Medo (thoroughbred). Fourth dam by American Eclipse; he by Duroc.

Strathmore by Rysdyke's Hambletonian, the sire of Dexter, 2:17, and of the dam of Trickett, 2:24, and Tamboul, 2:42; Almont by Alexander's Abdallah, sire by Goldsmith Maid, 2:14.

First dam by Mambrino Chief, sire of Lady Thorn, 2:18, and sire of the dam of Director, 2:17. Second dam by Pilot Jr., sire of the dams of Maud S, 2:03, and Jay Eye See, 2:10.

TERMS, \$25 for the season.

CHARLES DERBY 4907.

2-year-old trial, 2:36.

Sired by Steinway (1808), record 2:25, the sire of Strathway, 3-year-old, record, 6th heat, 2:26.

First dam Katie G (the dam of H. R. Covey, 3-year-old trial, 2:27), by Electioneer, the sire of Mansineta, 2:16, and of Sunol, 2-year-old record, 2:18, and of eight others with records of 2:20 and better. Second dam Fanny Malone, record, 2:36, trial, 2:23, by Niagara (sire of Cobb, 2:31, double team record, 2:26), and of Lady Hoag, trial, 2:18. Said to be by Mambrino Chief, the sire of Lady Thorne, and of the dam of Director, 2:17. Third dam Fanny Wickham, record 2:43, by Imp. Herald (thoroughbred). Fourth dam by Imp. Trustee (thoroughbred).

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Sired by Luck's All (189). First dam by Sportsman (291).

Second dam by Luck's All (188). Third dam by Cardinal (47).

Fourth dam by Emulator (103). Baron Hilton is a grand, rich bay with black legs, a noble crest and carriage; is perfect in style and action and has proved himself a great breeder.

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Sired by Young Candidate, winner first premium at Gt. Yorkshire, beating 20 others.

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Third dam by Summercock (302). Royal Studley is a very handsome, bright bay, 163 hands high, weight 1600 pounds, with superior style and action.

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First dam Daisy by Luck's All 188. Second dam by Providence 249; he by Master George 203, by King George 160; he by King George IV 163.

Napoleon is a fine, rich bay with black legs and very superior action. He is very deep in the girth and has wonderful style. He took the premium at London, England, and also Silver Medal where he was shown against horses of all ages. He also took first premium at Middleton in Teesdale, and second premium at Bowes, England, in 1885; first premium at Illinois State Fair and first at Fat Stock Show at Chicago, 1887.

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All interested in Thoroughbred Sheep should be familiar with this flock, which has become famous under the care and management of Mr. Roberts; always receiving first premiums, having been sold to Europe, South America and all parts of the United States; individual numbers having repeatedly sold for from \$500 (five hundred) to \$1500 (fifteen hundred) each. Sheep Men should seize this opportunity to secure some, as they must be sold to settle up the Estate. Address, JAMES SPANLEY, Administrator Estate J. Roberts, Deceased, Mission San Jose, or 946 Broadway, Room 17, Oak and Cal.

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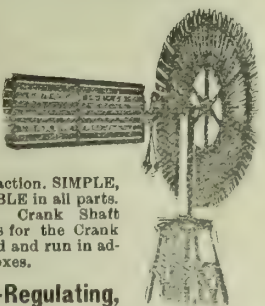
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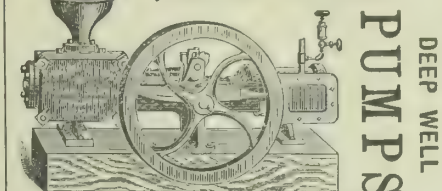
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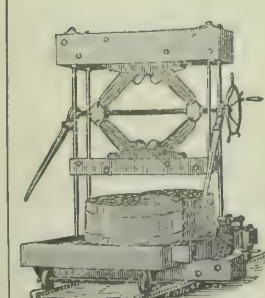
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ain View; Wm. Bihler, Lakeville; J. L. Beard, Center-
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S. H. MARKET REPORT

Market Review.

DOMESTIC PRODUCE, ETC.

SAN FRANCISCO, June 26, 1888.

Trading the past week in farm products was active in all branches except cereals. The latter kept dull, owing to conflicting reports set afloat chiefly by a strong bear clique. The European and English wheat markets have been steadily moving up, while ours is kept down. The following is to-day's cablegram:

LIVERPOOL, June 26.—Wheat—Fair inquiry. California spot lots, 6s 8d to 6s 11d; off coast, 34s; just shipped, 34s 3d; nearly due, 34s 3d; cargoes off coast, nothing offering; on passage, firmer and held higher. Mark Lane wheat, turn dealer; English country markets, generally dearer; French, firmer; wheat and flour in Paris, firm; weather in England, brilliant.

Liverpool Wheat Market.

The following are the closing prices paid for wheat options per cwt. for the past week:

	June.	July.	Aug.	Sept.	Oct.	Nov.
Thursday.....	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d
Friday.....	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d
Saturday.....	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d
Monday.....	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d
Tuesday.....	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d	6s 10d

The following are the prices for California cargoes for off coast, nearly due and prompt shipments for the past week:

	O. C.	P. S.	N. D.	Market.
Thursday.....	33s 9d	33s 9d	33s 9d	Quiet.
Friday.....	33s 9d	33s 9d	33s 9d	Firmer.
Saturday.....	34s 0d	33s 9d	34s 0d	Strong.
Monday.....	34s 0d	33s 9d	34s 0d	Advancing.
Tuesday.....	34s 0d	34s 0d	34s 0d	Improving.

Eastern Grain Markets.

The following shows the closing prices of wheat in New York for the past week:

Day.	June.	July.	Aug.	Sept.	Oct.
Thursday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2
Friday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2
Saturday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2
Monday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2
Tuesday.....	82 1/2	82 1/2	82 1/2	82 1/2	82 1/2

The closing prices for wheat have been as follows, at Chicago for the past week:

Day.	June.	July.	Aug.	Sept.
Thursday.....	77 1/2	77 1/2	77 1/2	77 1/2
Friday.....	77 1/2	77 1/2	77 1/2	77 1/2
Saturday.....	77 1/2	77 1/2	77 1/2	77 1/2
Monday.....	77 1/2	77 1/2	77 1/2	77 1/2
Tuesday.....	77 1/2	77 1/2	77 1/2	77 1/2

NEW YORK, June 26.—Wheat—86 1/2¢@87¢ for cash, 85 1/2¢ for July, 85 1/2¢ for August, 85 1/2¢ for September and 89¢ for December.

Foreign Grain Review.

LONDON, June 24.—The *Mark Lane Express*, in its review of the British grain trade for the past week, says: Weather favors the wheat crop except in the heavier soils, which will need dry weather during July. The foreign wheat trade is improving. Foreign barley is 3d dearer. Oats are firm. In off-coast trade Danubian wheat touched 28s and Californian 33s, although they closed firmer on the week 1s dearer. American and Californian tended in sellers' favor.

California Fruits East.

CHICAGO, June 21.—Auction sales of California fruits to-day are: One carload of peaches, apricots and plums. Peaches sold at \$1.10 to \$1.75; plums at \$1.08 to \$1.25; apricots at 65¢ to \$1.10.

CHICAGO, June 22.—The agents of the California Fruit Union sold to-day one carload of fruit. Plums, \$1.95@1.55; apricots, \$1.35@75¢; peaches, \$1.35@1.45.

CHICAGO, June 24.—The agents of the California Fruit Union sold four carloads of fruit to-day as follows: Peaches, \$1.10@1.45; apricots, 65¢@1.30; peach plums, \$1.60@2.75; Royal Hative, do, \$1.30@1.85; pears, \$3.70; pines, \$2.70.

CHICAGO, June 26.—Porter Bros. Co. sold to-day through the Adams & Lewis Auction Co. three carloads of apricots, peaches, plums and pears. Apricots sold at \$1.10 to \$1.50, with the exception of a few lots in bad order, which sold at 60¢ to \$1. Peaches sold at \$1.60 to 95¢, plums at \$2.45 to \$1. Bartlett pears at \$3.85 to \$4.40. Good stock in demand.

Eastern Wheat Markets.

NEW YORK, June 23.—Breadstuffs are higher than last week and the demand is fairly active, based on sales and demand from the other side of the water. Heated reports of bugs in Indiana and Illinois wheat are strength to the demand for Western wheat. The truth is, the bears have been trading for best and early this on the prospect of the biggest, or has proved the best ever made. The wet weather was a report on "chance" of the latter already. There of flour for the Argentine the sale of 50,000 barrels failure of the crop. public, owing to the

Chicago Live-Stock.

	Beaves.	Steers.	Market.
Thursday.....	\$3.90@4.35	\$3.40@4.15	\$4.20@4.15
Friday.....	4.00@4.40	3.30@4.15	4.20@4.15
Saturday.....	4.00@4.40	3.30@4.15	4.20@4.15
Monday.....	4.05@4.40	3.35@4.15	4.20@4.40
Tuesday.....	4.05@4.40	3.30@4.15	4.20@4.40

Eastern Wool Markets.

BOSTON, June 21.—The wool outlook for the week has been the best since the first of the year. Prices have picked up and all offerings were quickly taken. This was caused by manufacturers who have been holding off to the last for the lowest possible figure, and who became convinced that the bottom is reached, and they are now buying.

NEW YORK, June 22.—Country rates are noticeably reflected upon all Eastern wool markets. A fair manufacturing demand exists. Sellers obtain full rates, and some buyers insist that they are paying more than recent figures.

Another telegram says wool is stiffening. Buyers have to add a fraction to their bids every time they come into the markets to duplicate their purchases. Stocks here are daily becoming further reduced, with little in the way of new wool starting forward as yet, and none at a price that will give a margin in this city until the line of valuation is still further advanced. Accounts from all sources of supply are still more brilliant this week, and the trader suggests that at

the rate growers are marking up costs it looks as though they did not care to sell. The movement this week was fair and at full rates. The absence of desirable assortments was a retarding influence.

Miscellaneous.

NEW YORK, June 22.—A good movement is reported for attractive prunes.

Raisins are active for the warm weather. Accredited information from Malaga speaks of the ravages of the phylloxera, and says the pack is not likely to exceed 600,000 boxes. Valencia, which competes with home Crowns, exports rather more than an average crop.

A growing interest extends to the Pacific industry which promises to produce olive oil in shipping quantities. A pure article would soon work into a successful position. Consumers are tired of the many adulterated specimens, and Italian importations fail to fill the full wants of the genuine.

Hides are steady at 15¢ for California; Central America, dry, 16¢; other best, 10¢@14¢; common are strong.

Lima beans close at \$3.60; nearly out.

Hops continue to be rated good property, and the brewing business derives more or less encouragement from the sentiment expressed against prohibition by the Pennsylvania and Rhode Island elections. Prices for all useful grades are firm, while the 23c grade of State and 21c Pacific seem shaping for more money. Exports for the week, 855 bales.

Local Markets.

	Buyer Season.	Seller 1889.	Buyer 1889.
Thursday.....	87 1/2	72 1/2	80 1/2
Friday.....	87 1/2	72 1/2	80 1/2
Saturday.....	87 1/2	72 1/2	80 1/2
Monday.....	87 1/2	72 1/2	80 1/2
Tuesday.....	87 1/2	72 1/2	80 1/2

NEW.

	S. S.	B. S.	B. '89.	S. '89	B. '89.
Thursday.....	139 1/2	139 1/2	139 1/2	139 1/2	139 1/2
Friday.....	139 1/2	139 1/2	139 1/2	139 1/2	139 1/2
Saturday.....	139 1/2	139 1/2	139 1/2	139 1/2	139 1/2
Monday.....	139 1/2	139 1/2	139 1/2	139 1/2	139 1/2
Tuesday.....	139 1/2	139 1/2	139 1/2	139 1/2	139 1/2

—After August.

BAGS—A large importation of Calcuttas came to hand the past week, but their importation had been discounted. The market is reported steady at 7 1/2¢@8¢, with jobbing parcels quoted higher.

BARLEY—The second schooner-load of new-crop came to hand to-day (Wednesday), but up to this writing had not been placed on the market. The sample market shows continued strength. The heavy rains in the Central States, it is claimed, will injure crops there and cause a market for our gut-edged. In futures trading has been fairly active. The following are to-day's Call Board sales:

Morning Session: Seller 1889, new—100 tons, 72 1/2¢; 100, 73¢. Buyer season—100 tons, 88¢ cwt. Afternoon Session: Buyer 1889—600 tons, 81¢; 200, 81 1/2¢; 400, 81 1/2¢; 100, 81 1/2¢. Seller 1889—new—100 tons, 73 1/2¢. Buyer season—100 tons, 88 1/2¢; 100, 88 1/2¢ cwt.

BUTTER—Gilt-edged butter creeps up, but fair to good creeps down, while choice keeps fairly strong. Receipts continue free, with shipments from Central States coming in semi-occasionally.

CHEESE—The market is still gathering strength under light receipts and a fair demand.

EGGS—Extra fresh laid are wanted; choice selected are strong. Fair to poor are hard to sell. Receipts are light and demand good.

FLOUR—The market is reported to be unchanged.

WHEAT—The English and Eastern markets have advanced the past week from 3 to 50 per cent, while ours has been kept down, with freights no higher. Evidently either the wheat or ship ring, perhaps both, intend getting all the cheap wheat they can before they are compelled to advance prices. Crop returns indicate that the yield of this State will be all of 1,500,000 tons, and may go to about 1,700,000 or even 1,800,000 tons. The crop of the United States is now estimated by some authorities to be less than that of 1888. In futures, trading has been fairly active at advancing prices. The following are today's Call Board sales:

Morning Session: Buyer 1889—600 tons, \$1.36 1/2; 800, \$1.36 1/2; 500, \$1.36 1/2. Buyer 1889, after August 1st—800 tons, \$1.36 1/2. Seller 1889, new—100 tons, \$1.28; 100, \$1.27 1/2. December—100 tons, \$1.33 1/2 cwt. Afternoon Session: Buyer 1889—800 tons, \$1.38; 200, \$1.37 1/2; 100, \$1.37 1/2; 600, \$1.37 1/2; 100, \$1.37 1/2. Buyer 1889, after August 1st—200 tons, \$1.37; 100, \$1.37 1/2. Seller 1889, new—200 tons, \$1.28 1/2. Buyer season—100 tons, \$1.42 1/2; 200, \$1.42 1/2; 400, \$1.43; 500, \$1.43 1/2 cwt.

[COMMUNICATED.]

Market Information.

Produce Receipts.

Receipts of produce at this port the week ending June 26th, were as follows:

Flour, qr. sks....	72,047	Middlings, sks....	4,002
Wheat, cts....	88,558	Alfalfa, ".....	"
Barley, ".....	13,080	Chicory, bbls....	360
Oats, ".....	927	Broomcorn, bbls....	"
Corn, ".....	5,931	Hops, bbls.....	1
Butter, ".....	2,250	Wool, ".....	5,868
do bxs.....	843	Hay, tons.....	2,145
Cheese, cts....	1,866	Straw, ".....	93
do bxs.....	8	Wine, gals.....	196,050
Eggs, doz.....	128,340	Randy, ".....	450
Beans, cts....	8,947	Foams, bxs....	"
Potatoes, sks....	18,106	Walnuts.....	171
Onions, ".....	3,394	Flaxseed, ".....	"
Bran, sks.....	10,615	Mustard, sks....	238
Buckwheat, sks....	"	"	"

Cereals.

H. Kains Jackson writes to the *London Farmer*, June 8, as follows: Forecasts of very hot weather for June may, if fulfilled, rush on the crops even to make a July harvest, and undoubtedly as cutting of wheat is reported from the earliest States of America, as well as from Spain and Italy, we may consider prospects are already under the influence of harvest weather. What such weather may be cannot certainly be foretold, but what it has been in the last

ten days we are getting to know, as reports arrive. Most English counties have had brightness and heat since last week, enough to carry off the rank moisture generated by the previous heavy rainfall. Matters are therefore improved upon preceding good prospects. From France the reports are irregular, and in some departments serious damage has been caused by storms and floods. Nor is the account from Central Europe or from Southeast Russia favorable to crop prospects, and late in May the Canadian wheat-fields were visited by sharp frosts. The latter, however, may not have done serious harm, since in England even June frosts have been suffered, and the wheat crop has proved good. California and Oregon rejoice in excellent crop prospects up to the time of cutting. But, notwithstanding the general expectation of good crops, a little feeling of market-mistrust has been noticeable in the past week, that is, mistrust in carrying depressed prices further. Value is low enough to be reckoned safe, even with all the world's harvest a full one. Of late years the world has been denuded of grain stocks, and it may be that the time has come for each country to replenish their stores. Price invites reasonable storage, and it may be said that if England and France alone put by stocks to only the extent of very recent years, their demand would absorb all the wheat surplus that the next harvest can supply. Rumor of war, disaster from weather threatened by this abnormal season, might easily start speculation when wheat is at 30s. to 34s., maize 18s. 6d. to 21s. per qr. Meanwhile only small retail business passes at the exchanges, and millers sell flour very lowly.

Wheat crop returns are coming in more freely, but in such a contradictory manner as to make it hard, as yet, to form a correct estimate of the output. While the returns are seemingly contradictory, still they are undoubtedly correct. This contradictory character lies in the fact that while some fields in the same locality return from 8 to 12 bushels to the acre, there are others, again, in the same section that give from 15 and over bushels to the acre. These are the returns from localities or sections giving the lightest yield, for there are many sections that give from 15 as the lowest to above 25 as the highest. As near as can be figured at present, the crop of the State will average between 15 and 18 bushels to the acre, provided no devastating hot winds set in. The quality of the berry will be above an average, although there will be a great deal of pinched and some smutty from several of the counties.

The local wheat market has ruled extremely dull and inactive the past week, with export buyers doing all they can to force values to a lower level, and that, too, in the face of a higher and more active market abroad. It is claimed that tonnage is against them, that is, ships hold for too much money. The writer of this some time ago gave correct crop returns which were of sufficient importance to induce ships coming, but this information was neutralized by two rings, ship and wheat, giving out indifferent crop reports and couched in such language as to deter many vessels from coming here the forepart of the season. Our advices from foreign shipping ports indicate that the tonnage to come here will be largely increased for at least two months to come. This is made the more certain with foreign wheat markets advancing. Sales the past week were made for immediate delivery as high as \$1.31 1/2 for choice shipping, and as low as \$1.28 1/2 for fair to good. For July delivery, \$1.27 1/2@1.30 is paid, according to grade of wheat and time of delivery. Buyers are expecting that after next week, heavier deliveries will be made by farmers.

Barley has shown a steady but strong tone throughout the week. The returns from harvesters indicate a large output to the acre, with the general grade good. The consumption in the agricultural districts is estimated by conservative parties to be fully ten per cent more than last year. The increase is based on more teams employed for the larger cereal crops, hay crops, and more fruit trees and vines coming into bearing. Besides this, all cities and towns have more freighting, which will call into service more teams for its hauling. Choice to gilt-edged barley is largely inquired for for shipping.

Oats are without essential change. The buying for Australasia gave some tone to the market, but with free offerings and harvesting under way in this State, cause a weaker feeling with buyers offish. Oregon and Puget Sound advices report the crop outlook to be a full average.

Rye and buckwheat are unchanged. Corn is fairly steady. The demand is of an offish character. The outlook for the crop in this State is said to be from fair to good. The yield to the acre will probably not equal last year's.

"Northwest," under date at Chicago, June 18th, writes as follows: "The winter wheat harvest has been progressing for the last ten days in Tennessee and Kentucky, but has been greatly interfered with by heavy and continuous rains. Nearly 50 per cent of the winter wheat in Tennessee is in shock, and the remaining 50 per cent is dead ripe. Considerable harvesting has been done in Southern Kansas and Missouri, but rains in these States have also interfered. Rains in Illinois and Indiana have been excessive, so that corn cannot be worked, and the fields are getting weedy and grassy. As the season advances the rainfall seems to increase, which keeps the crops very backward, and we have lost all we gained from early planting. The oat crop, where it has grown rank is beginning to lodge, which is not favorable for a heavy crop of well-filled grain. The situation in the spring wheat States of Minnesota and Dakota is, in many areas, very discouraging. The drought has been very severe, and in many counties the wheat promises to be even poorer than it was last season. We yet have time, with good weather, safely to gather winter wheat, which is now nearly ready for the sickle; spring wheat is in a more doubtful condition, owing to the short time it has to make a crop; corn is growing, but greatly needing cultivation and dry weather."

Fruit.

Watermelons, canteloupes, nectarines and Bartlett pears are in the market. The market for all kinds of fruit has held fairly steady with only slight changes in quotations noted from to day. The cool weather is against a free consumption. Cherries are going out. Oregon is sending us a few consignments. Currants are doing better, under the same receipts. Apples are still meet with a good demand at full figures. Strawberries and raspberries are generally easy. Plums

are coming in fairly well. Apricots are stronger owing to the low prices offered by canners, inducing orchardists to dry, rather than to sell green.

In dried fruits of last year's curing, there is nothing new to report. The demand is almost nil, as are the stocks. New crop apricots have put in an appearance. They fetched 10 to 10 1/2¢, with quality only fair.

It now looks as if there will be a larger drying this year than there was in 1888.

Raisins are unchanged. The feeling is very hopeful for the new crop, particularly for the better established brands.

Feedstuff.

The consumption of all kinds of feedstuff is steadily growing, causing a gradual strengthening for bran, middlings and ground barley. The price for the first was marked up the past week. Ground barley shows an advancing tendency, although dealers do not look for much of an upward movement for the present.

Hay is in heavy receipt, with considerable selling pressure. The consumptive demand is increasing, while the shipping movement by sea gains in volume.

Live-Stock.

The market is without any special features to note in bullocks and mutton sheep. The consumption is still light, but the offerings do not appear to be so excessive. Hogs have a stronger tone, in sympathy with cured meats, which are higher under a good consumptive call. In milch cows, there is nothing new to report. Horses are without change. There is a good inquiry for roadsters, single drivers, single footers, general utility horses and also matched teams.

Vegetables.

Garden truck continues to move off quite freely. Green peas, string beans and asparagus are stiff under light receipts. Cucumbers, tomatoes, green corn, okra and squash are weak, with lower prices for the first three. Green corn is coming in in poor condition. Tomatoes have receded to such figures as to bring in canners. Choice well-conditioned, good-keeping vegetables are given the preference by buyers.

Onions are coming in fairly free, with their general quality and condition greatly improved, which naturally causes more trading.

Potatoes are strengthening. This is due to their improved and better keeping qualities. The demand is chiefly for home consumption, although some shipping is still noted. Cabbages and root vegetables are without essential change to note.

Live-Stock.

The market for dressed cattle is quoted as follows [to obtain the price on foot, take off from the price for stall-fed one-third to one-half, according to the nature of the feed and time fed; and for grass-fed take off the price from 40 to 60 per cent]:

HOGS—On foot, grain fed, 5 1/2¢@6 1/2¢ lb.; dressed, 8¢@9¢ lb.; soft, 5¢@5 1/2¢ lb.; dressed, 8¢@9¢ lb. Stock hogs, 5¢@6¢ lb.

BEEF—Stall fed, 6¢@6 1/2¢ lb.; grass fed, extra 5 1/2¢@6¢ lb.; first quality, 5 1/2¢@5 3/4¢ lb.; second quality 4 1/2¢@5¢ lb.; third quality, 3 1/2¢@4 1/2¢ lb.; bulls and thin cows, 2¢@3¢ lb.

VEAL—Small, 7¢@9¢ lb.; large, 5 1/2¢@7 1/2¢ lb. MUTTON—Wethers, 5 1/2¢@6¢ lb.; ewes, 5¢@5 1/2¢ lb.; lamb, spring, 7 1/2¢@8 1/2¢ lb.

Miscellaneous.

Poultry has a steadier, firmer tone, under lighter receipts. The demand is only fair.

Beans, owing to unfavorable crop prospects at the East, are doing better. The movement appears to be of a speculative character.

Seeds are without any special features to report. Hops are very strong, in sympathy with the Eastern markets. English mail advices report the vine attacked by flies, Continental crop advices are only fair. Eastern crop advices and also on this coast are uniformly good.

The wool market is very strong for the more desirable clips. Buyers, when suited in grade, cleanliness, life and strength, do not haggle over a slight advance. Eastern telegrams report a continued improvement, with light-weight woolen goods doing better. This improvement in goods encourages wool holders.

The export movements by sea the past week were as follows: Wool via C. P. R. to Boston, 134,689 lbs; to Hartford, 45,386; to New York via Panama, 406,933. Wine to New York via Panama, 276,988 gals.; brandy, 15,300 gals.

The demand for immediate loading is light, but for forward loading there is a fairly good inquiry. The nominal spot price for iron ships may be quoted at \$1.13 9d for orders, with \$1.15 obtainable for iron carriers not over 2000 tons register, for any loading up to the end of December. Small iron vessels, August-September canceling, are quoted firm at \$1.16 3d for orders.

From the *Commercial News* of June 26 the following summary of tonnage movement is compiled:

	1889.	1888.
On the way to this port.....	248,234	304,619
On the way to neighboring ports.....	29,226	115,650
In port, disengaged.....	11,455	47,103
In port, engaged for wheat.....	46,511	13,834

Totals.....335,426 481,206

To get the carrying capacity, add 60 per cent to the registered tons as given above.

From July 1st to June 26, the following are the exports from this port:

	1889.	1888.
Wheat, cts.....	12,731,000	8,473,050
Flour, bbls.....	819,544	776,398
Barley, cts.....	1,298,153	694,325

MUTUAL LIVE-STOCK INSURANCE.—The formation of two companies for the insurance of live-stock is reported. The Pacific Coast Mutual Live Stock Association has incorporated on the mutual plan, without capital stock, "to reimburse each member for any loss sustained through the death or disability of their live-stock, but not for profit

Domestic Produce.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 26, 1889.

BEANS AND PEAS.
Lima, 2.40 @ 2.70
Kidney, 2.50 @ 2.80
Pink, 2.35 @ 2.75
Large White, 2.40 @ 2.60
Small White, 2.00 @ 2.15
Lima, 4.50 @ 5.00
Kidney, 4.40 @ 5.00
do green, 4.00 @ 4.50
do Lima, 4.00 @ 4.50
BROOM CORN.
Southern, 75 @ 80
Northern, 80 @ 85
CHICORY.
California, 6 @ 6.50
German, 6 @ 6.50
DAIRY PRODUCE, ETC.
BUTTER.
Cal. Poor to fair, 10 @ 14
do good to choice, 15 @ 17
do Fancy brands, 17 @ 19
do pickled, 17 @ 19
Eastern in tubs, 14 @ 16
do in rolls, 13 @ 14
CHEESE.
Cal. new choice, 7 1/2 @ 8
do old, 7 @ 7.50
do fair to good, 6 @ 7
do new, 6 @ 7
EGGS.
Cal. ranch, doz, 22 @ 24
do store, 16 @ 21
Eastern, limed, 15 @ 16
Eastern, fresh, 15 @ 16
FEED.
Barley, ton, 12.50 @ 13.50
Feed meal, 24 @ 25
Wheat, 15 @ 16
Widdings, 15 @ 17
Oil Cake Meal, 30 @ 32
Manhattan Food, 7.50 @ 8
HAY.
Old not quoted.
Compressed, 8 @ 10
Wheat, ton, 7 @ 8
Wheat and Oats, 7 @ 8
Wild Oats, 8 @ 10
Oats, 6 @ 7
Cultivated Oats, 7 @ 8
Barley, 5 @ 6
Barley and Oats, 5 @ 6
Alfalfa, 4 @ 5
Alfalfa Hay, 3 @ 4
Alfalfa mixed, 3 @ 4
Straw bale, 60 @ 80
FLOUR.
Extra, City Mills, 4 @ 4.25
do City Mills, 3.5 @ 4.25
Superfine, 2.50 @ 3.25
Wheat, feed, 6 1/2 @ 6.50
do brewing, 7 @ 8
do choice, 8 @ 9
Chevalier extra, 9 @ 10
do corn to grade, 9 @ 10
Buckwheat, 3 @ 3.25
Corn, White, 1 @ 1.12 1/2
Yellow, 1 @ 1.12 1/2
Oats, milling, 1 @ 1.12 1/2
Choice feed, 1 @ 1.12 1/2
do good, 9 @ 9.50
do fair, 9 @ 9.50
do Gray, 8 @ 8.50
Wheat, milling, 1 3/4 @ 1.37 1/2
do choice, 1 3/4 @ 1.37 1/2
do fair to good, 1 3/4 @ 1.37 1/2
Shipping, choice, 1 3/4 @ 1.37 1/2
do good, 1 3/4 @ 1.37 1/2
do fair, 1 3/4 @ 1.37 1/2
HIDES.
Dry, 11 @ 12
Salted, 5 @ 6
HOPS.
Oregon, 1887, 6 @ 12
do 1888, 14 @ 18
California, 1887, 6 @ 12
do 1888, 14 @ 18

FRUITS AND VEGETABLES.

Extra choice in good packages fetch an advance on top quotations, while very poor grades sell less than the lower quotations.

WEDNESDAY, June 26, 1889.

Apples, box, com, 4 @ 7
do Choice, 1 @ 1.50
do Extra, 1 @ 1.50
Bananas, bunch, 1.25 @ 2.50
Cranberries, 7 @ 8
Lima, Mex, 4.50 @ 5.00
do Cal, 4.50 @ 5.00
Lemons, Cal. box, 1.50 @ 4.00
do Sicily, box, 7 @ 8
do do seedling, 7 @ 8
Oranges, Cal. box, 1.50 @ 2.50
do good, 1.50 @ 2.50
do Choice, 2.75 @ 3.50
do Navel, choice, 2.75 @ 3.50
do Com, choice, 2.75 @ 3.50
Pineapples, doz, 3 @ 4
Raspberries, 3 @ 4
Strawberries, 4 @ 5
do fair to good, 2.50 @ 3.50
Gooseberries, lb, 3 @ 5
do choice, 6 @ 7
Cherry Plums, 30 @ 35
Cherries, red, lb, 30 @ 35
do black, 50 @ 55
do white, 60 @ 75
Pears, Cal. box, 1 @ 1.00
do fair to good, 40 @ 75
Peaches, per box, 75 @ 1.00
do fair to good, 90 @ 1.00
do poor, 40 @ 60
Plums, Cal. box, 75 @ 1.00
do fair to good, 40 @ 65

PRIME PEACH APRICOTS.

Last week's Farmer spoke of R. C. Kells exhibiting at the Farmers' Union, in Yuba City, a specimen lot of apricots rarely excelled in size and quality. Eight of them weighed 26 ounces, and five 18 ounces, according to the scales at the corner store.

As the variety was not stated, we dropped Mr. Kells a note asking him to name it, and he replies that they are Peach Apricots, grown on five-year-old trees without irrigation, and that he has been offered three cents a pound for them for canning. Not content with replying verbally, he also sends us by express a sample of the fruit itself, handsome and delicious. We thank him for the twofold answer.

THE STATE BOARD OF TRADE has just received from Los Angeles county a very fine exhibit of specimen fruit-packages—boxes, crates and baskets—fruit green, canned and dried, and miscellaneous products.

PACIFIC COAST WEATHER FOR THE WEEK.

(Furnished for publication in this paper by NELSON GOROM, Sergeant Signal Service Corps, U. S. A.)

DATE: June 19-25.

Portland, Eureka, Red Bluff, Sacramento, S. Francisco, Fresno, Keeler, Los Angeles, San Diego.

WEDNESDAY, June 26, 1889.

EXPLANATION.—Cl. for clear; Cy., cloudy; Fr., fair; Fy., foggy; Cm., calm; — indicates no wind to measure. Temperature, wind and wave on at 10 A. M. Pressure at 10 A. M. with amount of rainfall in the preceding 24 hours. T indicates trace of rainfall. Observations taken at 5 P. M. unless otherwise noted.

List of U. S. Patents for Pacific Coast Inventors.

Reported by Dewey & Co., Pioneer Patent Solicitors for Pacific Coast.

From the official report of U. S. Patents in Dewey & Co.'s Patent Office Library, 220 Market St., S. F.

FOR WEEK ENDING JUNE 11, 1889.

404,954.—HEADER ATTACHMENT FOR HARVESTERS—Henry Bryan, Modesto, Cal.

404,957.—DUMPING WAGON—Leopold Busse, S. F.

405,023.—COLLAR STUFFING MACHINE—Calvin Ewing, S. F.

405,037.—CORSET—Lucy J. James, Pomona, Cal.

405,215.—COIN ACTUATED RECEPTACLE—E. J. Jones, S. F.

404,988.—STRETCHER BAR—Erich Schmidt, Marysville, Cal.

404,973.—GATE—Hyde & Dotterer, Davisville, Cal.

405,132.—PISTON FOR STEAM ENGINES—W. J. Thomas, Sausalito, Cal.

405,193.—CART SPRING—L. E. Walberg, Hollister, Cal.

404,983.—SHIP'S WINDLASS INDICATOR—David H. Rivers, * * *

NOTE.—Copies of U. S. and Foreign patents furnished by Dewey & Co., in the shortest time possible (by mail or telegraphic order). American and Foreign patents obtained, and general patent business for Pacific Coast inventors transacted with perfect security, at reasonable rates, and in the shortest possible time.

California Products at Chicago.

CHICAGO, June 26.—California green fruits are in good request and rather steady for all stock in good order. Cherries were small and common and had to be sold low. Cherries, 10-lb boxes, small, poor, 65¢@85¢; peaches, 20-lb cases, \$1.25@1.50; apricots, 20-lb cases, \$1.00@1.25; plums, peach, 20-lb cases, \$2.00@2.50; do, Royal Hatve, \$2.00@2.50; do, large black, \$3.00@3.25; Bartlett pears, 7-lb box, \$3.00@3.50. Oranges are steady with only a small stock on hand. Fancy mountain fruit, \$3.25@4.50 7-lb box; Los Angeles Duarte, smutty, \$3.00@3.50. California dried fruits are quiet, for there is nothing of consequence left in stock excepting a few apricots, and they are moderate sale at late prices. Values, which are little better than nominal, range as follows: Apricots—Evaporated, bleached, bxs, 9¢@11¢ 7-lb; do, sun-dried, according to quality, 6¢@8¢; do, in sacks, 6¢@8¢. Peaches—Bleached, unpeeled, boxes, 9¢@10¢ 7-lb; do, 8¢@9¢ 7-lb; do, sun-dried, unpeeled, 5¢@5 1/2¢; do, peeled, bxs, choice, 11¢@13¢; just fair, 9¢@10¢; 9¢@12¢. Nectarines—White, evaporated, bleached, bxs, 7¢@8¢ 7-lb; do, sun-dried, 6¢@7¢; do, red, evaporated, bleached, bxs, 6¢; do, sun-dried, 4¢@5¢. Plums—New, pitted, sacks, 5¢@6 1/2¢ 7-lb. Prunes, according to size, in sacks and dry, 7¢@10¢ 7-lb; damp, 3¢@4¢; Silver, 10¢@12 1/2¢; Hungarian, 8¢@9¢. Raisins—Loose Muscatels, new, 7¢ box, \$1.40@1.60; do, London layers, new, \$1.65@2.25. Beans—Conditions previously reported continue to prevail. Small offerings, light arrivals and uncertainty of the crop tend to give holders confidence in the market. A firmer feeling prevails with a fair demand from the trade. Lima beans, California, 5¢@6¢ 7-lb. Hops are firm and in good demand with offerings meager and few coming. Besides this, holders of hops in first hands are very firm in their views. Choice Washington Territory and Oregon, 24¢@26¢ 7-lb.; Pacific Coast, prime to choice, 20¢@23¢.

FROM A FAMOUS TREE.—On Tuesday Mr. N. W. Winton of Oakland, who is greatly interested in Butte county orchards, handed us two oranges which were picked last week from the historic tree at Bidwell's Bar—the parent of the Oroville seedlings. The samples are of medium size, shaped much like a Mediterranean Sweet with stem and blossom ends exchanged, have rather a fine skin and (judging by the one we have cut) few seeds and a good flavor. Mr. Winton says the old tree has 3000 oranges on it this year. They begin to ripen in December and will keep on till the new crop matures.

FIRST AGRICULTURAL DISTRICT.—The directors of the 1st District Agricultural Association met in this city June 25th and elected officers as follows: Pres., R. T. Carroll; V. P., Rob't McKilloan; Treas., Union National Bank of Oakland; Sec., Joseph I. Dimond, 109 Front St. The annual fair will be held at the Oakland Trotting park in August.

A SOCIALIST settlement up in the Tulare foothills is known as the Kaweah colony. It comprises 10,000 acres, among which is a portion of the giant forest.

Huntington Hopkins Co.

REMOVAL TO THEIR NEW BUILDING.

For several days past the Pacific Rural Press windows have overlooked an interesting and busy scene in the removal of the immense hardware stock of the Huntington Hopkins Company, from their former place of business at the junction of Market, Bush and Front streets, to their handsome and commodious new building on Fremont street, between Market and Mission, Nos. 18 to 24 inclusive. The new building has a frontage of 93 feet on Fremont street, and in height is five stories and basement, extending back 137 1/2 feet, where it joins the rear of an older four-story brick structure, also owned by the company, and having a frontage of 137 1/2 feet on First street by a depth of 137 1/2 feet. The two buildings are connected by a paved court, roofed with glass and iron, and make a total depth of 275 feet. This arrangement permits of a double driveway through the entire premises, thereby enabling heavy trucks entering from either street to load and unload and pass through without turning.

The new Fremont-street building presents an imposing front and reflects much credit upon the taste of the architect. It is very substantially constructed of granite, brick, iron and steel.

The interior of the building has been fitted with a special view to the requirements of an immense business, nothing having been omitted that would contribute to this end. Five hydraulic ram elevators and two hand elevators are in constant service, raising and lowering goods between the basement and the floors above.

Well-lighted and commodious offices are situated at the rear of the main salesroom, which is on the ground floor of the Fremont-street front. In this great salesroom, while containing many self goods may be seen conveniently arranged samples of nearly every line of hardware, etc., that the house carries. These consist of a great variety of agricultural implements, miners', blacksmiths' and carpenters' tools, and extensive line of builders' hardware, the best grades of cutlery and sporting goods of all kinds. In heavier goods there is constantly on hand a large stock of bar, bundle, sheet and plate iron and steel, wrought and cast-iron pipe, plumbers', blacksmiths', milling, mining and railroad supplies. The company gives employment to 90 men—salesmen, accountants, correspondents, porters, etc., in the San Francisco house alone. A history of this great business enterprise, from its establishment by C. P. Huntington in Sacramento forty years ago to the present time, would fairly illustrate the commercial progress of the Pacific Coast, as embodied in its own energy and successful achievements.

For many years the original house at Sacramento, as well as the business in San Francisco, has been conducted under the firm name of Huntington, Hopkins & Co., but on February 23, 1888, it was incorporated under the name of the Huntington, Hopkins Company, the officers of the corporation being Albert Gallatin, president, Charles Miller, vice-president, W. R. S. Foye, secretary, and Collis P. Huntington, treasurer.

Notwithstanding the immense business transactions of the company, which extend over the entire Pacific Slope from the Isthmus of Panama to Alaska, a visitor to the establishment will not fail to be impressed by the perfect order with which the details are conducted and the absolute discipline and system which prevail. An unsurpassed record of 40 years for integrity and straightforward business methods has earned for this house an enviable reputation, which does credit to the city and State alike.

A NEW PAPER BINDER.—A. T. Dewey's patent elastic binder, for periodicals, music and other printed sheets, is the handiest, and very cheapest of all economical and practical file binders. Newspapers are quickly placed in it (as received) and held neatly, as in a cloth-bound book. It is durable, and so simple a child can use it. Price (size of this paper, Harper's Weekly, and Scientific American), 75 cents; postage 10 cents. Postpaid to purchasers of this paper, 50 cents. For sale at this office. Send for illustrated circular. Agents wanted.

FRUIT GROWERS' PROCEEDINGS.—The proceedings of the Convention of California Fruit Growers, held at Chico last November, will be ready for distribution in the course of a week.

JUDGE FOX.—The Governor has appointed Chas. N. Fox of Oakland, Associate Justice of the Supreme Court, vice Jackson Temple, resigned.

Inducements to Subscribers.

To favor subscribers to this paper, and to insure new patrons to the next publication, we will furnish, to those who pay fully one year in advance of date, if requested the following articles (while this notice continues), at the very greatly reduced figures named at the right:

1.—The Agricultural Dictionary of California, by Prof. Hilgard, 138 large pages, illustrated, cloth, with colored maps (full price \$1)..... \$0.25

2.—Beautiful Book of Recipes, containing and illustrating; 85 pages (a handsome and pleasing present)..... 25

3.—Dewey's Patent Elastic Binder (cloth cover), name of this paper stamped in gold..... 50

4.—Niles' Stock and Poultry Book for Pacific Coast, pamphlet, 134 pages, illustrated..... 25

5.—Kendall's Treatise on the Horse and Diseases, 89 pages, instructive illustrations..... 05

6.—To New Subscribers, 12 select back Nos. of the RURAL PRESS, "good as new"..... Free

7.—Any of Harper's, Frank Leslie's and most other first-class U. S. periodicals, 15 per cent off regular rates.

8.—Pacific Coast and Eastern Dailies and Periodicals, except special publications, at an unusually low price, 10 to 15 per cent off advertised retail rates.

10.—March of Empire, by Mallie Stafford..... 25

11.—Life Among the Apaches, 322 pages, still cloth..... 25

12.—\$1 worth of choice seeds, to be selected from a list of 107 flower and 82 garden seeds, as previously published, or which list we will send on application..... 25

14.—Dewey's Pat. Newspaper Fileholder (18 to 36 in.)..... 25

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27.—Percheron Stud Book—French—bound in leather, 192 pages (full price, \$3)..... 1.00

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29.—Knitting and Crochet, by Jennie June; 144 pp., 200 illustrations..... 25

30.—Needle Work, by Jennie June; 12 pp., 200 illustrations..... 25

31.—Ladies' Fancy Work, by Jennie June; 162 pp., 700 illustrations..... 25

32.—The Way to do Magic; illustrated, 60 pp..... 10

33.—The Taxidermist's Manual; illustrated, 64 pp..... 10

34.—A Dictionary of American Politics; comprising accounts of political parties, measures and men, and explanations of the Constitution, divisions and practical workings of the Government, together with political phrases, familiar names of persons and places, noteworthy sayings, etc., by Everett Brown and Albert Strauss (Full price \$1)..... 50

NOTE.—The cash must accompany all orders. Address his office, No. 220 Market St., S. F.

In writing correspondence, items of information, or on other business, please use a separate sheet. Sample copies of this paper mailed free to persons thought likely to subscribe. Send for free circular describing most of these premiums, and any further information desired. Inform your neighbors about our offers and paper.

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We can furnish the following or any other standard agricultural and horticultural books at publisher's prices:

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Olive Culture (Morris)..... 1.50

Olive Culture (Tanner)..... 1.50

Grasses and Forage Plants..... 2.00

VETERINARIAN.—Prof. H. W. Rike, veterinary surgeon and graduate of Ontario Veterinary College, Toronto, Canada, and also of McPherson's School of Veterinary Dentistry and member of the Ontario Veterinary Medical Society, has located at San Jose. He cannot well be recommended in his profession, and no doubt will be welcomed by the people of this section who have large interests in raising fine cattle and horses.

BOUND VOLUMES.—Back files of this paper bound in substantial cloth binding with leather back, containing six months' numbers each, indexed, can be had at this office at \$4 per volume.

Concerning Moths.

Regarding moths, says the *Upholstery Trade Review*, many are not aware that the damage done is when the millers commence to fly, as their very presence indicates the absence of the worm. It is to prevent the miller incubating that precautions should be taken. A large proportion of the millers never hatch eggs, but die without causing any harm. The male miller, which does not fly, but runs very rapidly, is quite easily detected by his triangular shaped figure, but, keeping himself out of sight, he is not so easily found. His hiding explains the devious flights of the female in her search. The killing of one male is equal to the extinction of many ordinary millers. The male miller is commonly known by the name of "silver fish."

Carpets are seldom troubled with moth worms except where hatched in a dark, unprotected space, and where it is moderately warm. It is for this reason, no doubt, that carpet houses are seldom, if ever, troubled by them, the stocks in the larger houses being disposed of between seasons. Nearly all the trouble from moths emanates from the furniture, the burlap inside the outer covering being their best field for work, where they can be free from annoyance and find plenty to eat. Many furniture dealers realize their danger, and cleanse the burlap used with naphtha.

It is when the worms are either tired of their food or it lacks the nourishment that they desire, that they seek an outlet and drop upon the carpet.

Cleansing carpets by the naphtha process is regarded as the surest and most satisfactory, where there is the slightest suspicion of moth eggs or worms. It is especially adapted to pile carpets. Caution should be exercised as to the purity and clearness of the naphtha used and the thorough extraction of the grease, else the dirt adheres more easily than before. Where carpets are to remain in storage some time, the odor can be left in the carpet. A more thorough cleansing can be assured by having the carpet beaten first. A surface application of naphtha will drive the impurities through the article to be absorbed by that which is under it.

How to Kill Gophers and Rats—A Los Angeles county farmer, says the *Chino Champion*, has discovered that the little beasts of gophers love celery, and that putting poison on this vegetable and placing it in their way is a sure method of killing them. Asa Kimble of Chino says the poison should be put on what they are eating at the time; that is, if they are eating potatoes, put it on them; if trees, put it on the place eaten, and so on with any root, tree or vine they are destroying. An irresistible bait for rats is alluded to by the Washington correspondent of the *Cincinnati Commercial Gazette* as follows: An interesting, not to say valuable, discovery has been made by Capt. Weedon, in charge of the animals at the Zoo. The building is infested by rats, and how to get rid of them has long been a perplexing question. Traps were used, but nothing would tempt the rodents to enter. In a storeroom drawer was placed a quantity of sunflower seeds, used as a food for some of the birds. Into this drawer the rats gnawed their way, a fact which led the captain to experiment with them for bait in the traps. The result was that the rats can't be kept out. A trap which appears crowded with 6 or 8 rats is found some mornings to hold 15.

Complimentary Samples.

Persons receiving this paper marked are requested to examine its contents, terms of subscription, and give it their own patronage, and, as far as practicable, aid in circulating the journal, and making its value more widely known to others, and extending its influence in the cause it faithfully serves. Subscription rate, \$3.00 a year. Extra copies mailed for 10 cents, if ordered soon enough. If already a subscriber, please show the paper to others.

Successful Patent Solicitors.

As Dewey & Co. have been in the patent soliciting business on this Coast now for so many years, the firm's name is a well known one. Another reason for its popularity is that a great proportion of the Pacific Coast patents issued by the Government have been procured through their agency. They are, therefore, well and thoroughly posted on the needs of the progressive industrial classes of this Coast. They are the best posted firm on what has been done in all branches of industry, and are able to judge of what is new and patentable. In this they have a great advantage, which is of practical dollar and cent value to their clients. That this is understood and appreciated, is evidenced by the number of patents issued through their *Scientific Press Patent Agency* (S. P.) from week to week and year to year.

Housewives. Attention!

Two new first-class Sewing Machines for sale cheap. Will be set direct from waterrooms if desired. Address, R. F. D., Box 2517, San Francisco, Cal.

\$3,250,000

TO LOAN ON MORTGAGE ON RANCHES AND CITY real estate below market rates. HOWE & KIMBALL, 508 California St., S. F.

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\$550,000 TO LOAN ON RANCHES ON MORTGAGE; large sums below market rates. S. D. HOVEY, 218 Pine street, San Francisco.

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PAINLESS EFFECTUAL

For Bilious and Nervous Disorders, such as Wind and Pain in the Stomach, SICK HEADACHE, Giddiness, Fulness, and Swelling after Meals, Dizziness and Drowsiness, Cold Chills, Flushings of Heat, Loss of Appetite, Shortness of Breath, Costiveness, Scurvy, Blisters on the Skin, Disturbed Sleep, Frightful Dreams, and all Nervous and Trembling Sensations, &c. THE FIRST DOSE WILL GIVE RELIEF IN TWENTY MINUTES. This is no fiction. Every sufferer is earnestly invited to try one Box of these PILLS, and they will be acknowledged to be a Wonderful Medicine.

"Worth a guinea a box."

BEECHAM'S PILLS, taken as directed, will quickly restore females to complete health. For a

WEAK STOMACH; IMPAIRED DIGESTION; DISORDERED LIVER;

they ACT LIKE MAGIC:—a few doses will work wonders upon the Vital Organs; Strengthen the Muscular System; restoring long-lost Complexion; bringing back the keen edge of appetite, and assisting with the ROSEBUD OF HEALTH the whole physical energy of the human frame. These are "facts" admitted by thousands. In all classes of society; and one of the best guarantees to the Nervous and Debilitated is that BEECHAM'S PILLS HAVE THE LARGEST SALE OF ANY PATENT MEDICINE IN THE WORLD. Full directions with each Box. Prepared only by THOS. BEECHAM, St. Helens, Lancashire, England. Sold by Druggists generally. B. F. ALLEN & CO., 365 and 367 Canal St., New York. Sole Agents for the United States, who (if your druggist does not keep them) will mail BEECHAM'S PILLS ON RECEIPT OF PRICE 25 CENTS A BOX. Mention this Paper.

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OF CALIFORNIA,
SAN FRANCISCO, CAL.
INCORPORATED APRIL, 1874.



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Capital paid up in gold coin..... 624,160
Reserved Fund..... 40,000
Dividends paid to Stockholders.. 515,620

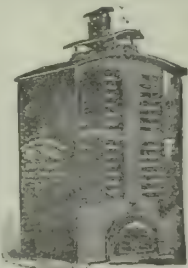
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